Experiencing supplier development:
Supplier perceptions of supplier development and related barriers and enablers

Veronica S. Ülgen
Experiencing supplier development:
Supplier perceptions of supplier development
and related barriers and enablers

Licentiate thesis
Veronica S. Ülgen
EXPERIENCING SUPPLIER DEVELOPMENT: SUPPLIER PERCEPTIONS OF SUPPLIER DEVELOPMENT AND RELATED BARRIERS AND ENABLERS
Licentiate thesis, Department of Accounting and Logistics, Linnaeus University, Växjö, 2017

Series number: No. 6, 2017
Published by: Linnaeus University Press, 351 95 Växjö, Sweden
Printed by: Copycenter, Lnu, Växjö
Summary

Supplier development is one of the managerial approaches suggested to buying firms to enable them to upgrade their suppliers’ performance and capabilities in order to strengthen the competitiveness of the buyer. Research interest in supplier development is primarily focused towards the buyer; however research has shown that buyers and suppliers may have different perceptions of the value of different supplier-development practices. In order for the supplier development to become or stay successful suppliers need to be capable of responding to a buyer’s supplier-development effort but also willing and motivated to do so. Buyers therefor need to understand the role, interests and motivations of the supplier. This thesis argues those interests and motivations are in part an effect of the fit between the supplier’s own strategic agenda and the supplier development agenda of the buyer. They are also argued to be an effect of the level of complexity the supplier experiences in the supplier development they experience. This emphasizes the need to incorporate the supplier experiences and perceptions in research.

Supplier-development research shows inconclusive results in terms of the impact of different supplier-development practices. Certain supplier development practices may increase supplier’s willingness to develop, however not necessarily their capacity to do so. As barriers are proposed to adversely affect the supplier development outcome and enablers are proposed to assists in achieving development; the inconclusive research results make the need to understand the potential barriers and enablers at play increasingly important. The understanding of barriers and enablers can possibly explain the outcome of supplier development efforts. This emphasizes the need to increase the understanding of barriers and enablers at play in any supplier development situation.

*The purpose of this thesis is to create an increased understanding of suppliers’ experiences and perceptions of supplier development and of the related barriers and enablers.*

The thesis is a compilation of the main thesis and three papers. It builds on data from three empirical studies focusing the suppliers’ experiences of supplier development and the related barriers and enablers. The first empirical study focuses on barriers and enablers related to the supplier-development practice performance management. The study is performed within two textiles retail supply chains. The second empirical study focuses on barriers and enablers related to the supplier-development program of a heavy vehicle industry buyer as perceived by six of its suppliers. The final empirical study focuses on the barriers to the ‘experienced total’ of supplier development by
suppliers in different industries. The thesis has put focus onto the three levels of abstraction through which supplier development can be studied and understood based on the experiences and perceptions of the supplier; practice, program and experienced total.

The findings indicate that the supplier development builds on indirect supplier-development practices. The indirect practices can be seen as a stepping stone for further, more direct practices. The structure of the supplier-development program is dependent on the individual actors in supplier development (supplier development engineers and purchasers primarily) rather than the common supplier development agenda of the buyer (firm). This has implications for the supplier-development organizations in terms of e.g. people retention. The complexities the suppliers experience due to many actors involved (firm and individual actors) is a growing ground for barriers in supplier development.

The findings also indicate that three types of barriers and enablers are present in supplier development; barriers and enablers related context, to the relationship between buyer and supplier or related to the actors (buyer or supplier).

Identified barriers to the supplier-development practice performance management are e.g. (multiple) supply chain interfaces and difficulties in developing a collaborative culture. Buyer power is identified as an enabler. For the supplier-development program, barriers such as lack of long term goals and agenda and lack of information and feedback are identified. Formal structure of the communication and customer attractiveness are seen as enablers of the supplier-development program assisting to achieve development. On the highest level of abstraction the ‘experienced total’, the barriers of contradictory interests, lack of continuity and lost relationships are identified. Those barriers concern the strategic agenda of buyer and supplier and the relationships between individual actors in supplier development. Firm size is perceived to affect the presence of barriers and enablers in supplier development. Barriers are created by the complexities the large actors seem to bring, or by the lack of resources for supplier development of the smaller actors. Large buyers and their related buyer power and customer attractiveness can be seen as enablers of supplier development.

This research proposes a definition of supplier development that takes into consideration the needs and motivations of the supplier; “Supplier development is a cooperative effort between a buying firm and its suppliers over time, to improve the short and/or long-term performance and/or capability of the supplier for the benefit of the buyer and supplier alike”. The definition builds on the findings of this research and has practical implications for buyers; supplier development needs to be long-term not only in regards to
the supplier development effort itself, but also in regards to the continuity of the specific supplier development agenda. This has implications for the design of the supplier development efforts and the supplier development organization set to deliver it. For supplier development success the suppliers need to perceive themselves as beneficiaries of the supplier development effort.
Acknowledgements

I am fully aware I didn’t win the Oscars or the HGC Mid-Season Brawl; neither did I qualify three years in a row for BlizzCon. I also didn’t perform a flawless Gossec’s Gavotte on the violin, or finalize a joint venture between two brands who’s policies and guidelines makes it almost impossible to agree. Instead I wrote a thesis. And writing one has still not been a small task and I would like to thank a number of people for making this licentiate thesis happen. Though I take full responsibility for anything written in the thesis, good and bad; I am not the only one who has been involved in its creation.

I would like start with thanking my supervisors for their contribution. Maria Björklund– without you this thesis would never have happened! Thank you for challenging me, pushing me, time-framing me - and discussing and arguing with me! Helena Forslund – thank you for your uninterrupted, never-ending support and good spirit! And not to forget – for sharing your amazing ability for clean-up and structure! Ladies - you are a great supervising team and I look forward to continue working with you.

Elin Funck – thank you for accepting the challenge of being the examiner of this thesis! Your calm, structure and eye for detail proved to be exactly what was needed at the time you stepped into my ‘supervising and examining committee’.

A very special thank you to Stig-Arne Mattsson and Mirka Kans for reading my script as it started to take final shape and for being the main opponents during my (next to) final seminar. I hope I have done justice to your feedback by doing what I could to improve my writings based on your inputs. The value of the feedback I received cannot be overstated. Speaking of seminars, thank you Fakhreddin Fakhrai Rad, Stefan Lagrosen, Peter Berling and Katarina Eriksson for your inputs as well!

Without the access to case companies and without participants in the focus group seminars – no thesis would have been possible so to all of you who contributed – I am forever grateful. I would also like to mention Åsa Gustafsson and Lars-Olof Rask and your contribution to the respective studies. Travelling with you through the south of Sweden was a blessing; and resulted in the collected data. Thank you! Helena Forslund – this one goes out to you as well.

Others have been involved and contributed – many have read the appended papers in one stage or another being my opponents in one or another internal
seminar. *Greg Johnson* has read the main thesis identifying a number of flaws of which some are now gone. Thank you!

Finally, I would like to thank my awesome colleagues for just being there. If all of you should be mentioned this preface would be as long as the thesis and I cannot allow for this at the moment. After I receive the Oscars or qualify for BlizzCon I will mention all of you! That’s a promise! Today I take the opportunity to mention only two; *Maria Persdotter Isaksson* thank you for being my co-PhD-student and creator of laughter! It does sound like someone from Game of Thrones, doesn’t it? Throughout this sometimes depressing journey we have always managed to have a lot of fun! And to *Henrietta Nilsson* thank you for being there supporting me over time.

Veronica Svensson Ülgen
Fortuna 23, Växjö 2017
Contents

Prologue ......................................................................................................................... 1

1. Introduction ............................................................................................................. 3

  1.1 Introduction to supplier development .......................................................... 3

    1.1.1 The importance of the supplier’s experiences and perceptions in supplier development .................................................. 5

    1.1.2 The importance of studying barriers and enablers ......................... 7

  1.2 Purpose and research questions ................................................................. 8

  1.3 Structure of the thesis ............................................................................... 10

2. Theoretical frame of reference ......................................................................... 12

  2.1 Supplier development .................................................................................. 12

    2.1.1 The supplier-development practice .................................................. 14

    2.1.2 The supplier-development program ............................................... 16

    2.1.3 The experienced total of supplier development ......................... 17

  2.2 Conceptualizing barriers and enablers ..................................................... 20

    2.2.1 Barriers ............................................................................................ 20

    2.2.2 Enablers .......................................................................................... 21

  2.3 Barriers and enablers in supplier development ........................................ 22

    2.3.1 Trust—Or the lack thereof .................................................................. 23

    2.3.2 Buyer’s top management commitment and support—Or the lack thereof ................................................................. 23

    2.3.3 Buyer’s purchaser commitment—Or the lack thereof ................... 24

    2.3.4 Long-term perspective —Or the lack thereof ................................ 24

    2.3.5 Supplier’s commitment—Or the lack thereof ............................... 25

    2.3.6 Buyer firm power—Or the lack thereof ......................................... 25

    2.3.7 Customer attractiveness—Or the lack thereof ............................... 25

    2.3.8 Communication, feedback and information sharing—Or the lack thereof ................................................................. 26

  2.4 Situation factors affecting the supplier development and related barriers
    and enablers ........................................................................................................ 27

    2.4.1 Sourcing geography ......................................................................... 28

    2.4.2 Industry ............................................................................................ 28

    2.4.3 Business type .................................................................................... 29

    2.4.4 Firm size .......................................................................................... 29

  2.5 Summarizing and synthesizing the theoretical frame of reference ......... 30

3. Research Methodology ......................................................................................... 33
Prologue

Some 20 or so years ago, a supplier in the American automotive industry stated, “You have to eat your pride” (Hartley and Choi, 1996: 38) in order to agree to participate in supplier development and accept other ways of doing things. Since then, supplier development has become a rather customary phenomenon in many industries. Much has been written about supplier development—mostly from the buying firm’s point of view. Much less is known about the perspective of the supplier.

At the outset of this research project, I could not help but wonder if the quote from Hartley and Choi (1996) was still true: Is supplier development forced onto suppliers by the (presumably) stronger and more powerful buyer? Is supplier resistance [to change] still a factor to take into account when implementing or trying to implement supplier development? Do suppliers perceive barriers to supplier development? If so, what are they, and how can they be understood? If supplier development is perceived as successful in the eyes of the suppliers, what paved the way for and created this success? There were more questions—they were plentiful indeed—some have been answered, some not. Through this research I wanted to increase the understanding of the supplier’s experiences and perceptions of supplier development, hoping that in time some of the findings could change the way buyers and suppliers perceive and work with supplier development, especially by mitigating barriers and utilizing and leveraging enablers. This is why this research has taken place and what it is all about.
1. Introduction

This chapter presents the importance and rationale of studying supplier development and related barriers and enablers from the supplier’s point of view. The purpose of the research is presented together with the research questions guiding this research. An outline of the thesis (including the ‘main thesis’ and the appended papers) is presented.

1.1 Introduction to supplier development

As firms continue to focus on core competencies, core technologies and outsourcing non-core requirements (Routroy and Pradhan, 2013; Talluri et al., 2010; Trent and Monczka, 1999), the dependencies of the buyer’s on the capabilities of the supplier (Arroyo-López et al., 2012; Krause and Ellram, 1997b; Trent and Monczka, 1999) is increasing. Without a competent supplier base, a firm’s ability to compete effectively in the marketplace can be at risk (Hahn et al., 1990). In case of shortcomings in supplier performance, a buyer can choose to look for alternative suppliers or to assist the existing supplier in improving its performance by investing time and other resources (Arroyo-López et al., 2012; Busse et al., 2016). Given the importance of the supplier’s influence on the buyer’s performance in terms of e.g. operational efficiency, increasing attention is focused on how supplier relationships should be managed in order to create collaborative advantages (Holmen et al., 2013). Supplier development is one of the managerial approaches suggested as a means of managing supplier relationships (Holmen et al., 2013). The awareness of the importance of the supplier’s influence on the buyer’s competitive advantage (Ghijsen et al., 2010; Trent and Monczka, 1999; Wagner, 2006) has lead manufacturing firms to realize the possibility of the strategic and long-term benefits of supplier development (Wagner, 2010) and buyers have become motivated to invest assets and resources in supplier development.

---

1 Buyer in this main thesis is to be understood as a ‘customer company/organization’ and not as an individual actor representing the purchasing/sourcing function.
development (Krause et al., 1998). According to Wagner (2010) buyers that possess the strategies, structures, and capabilities to engage in supplier development are equipped with a powerful interfirm relationship management practice that enables them to upgrade their suppliers’ performance and capabilities and will ultimately benefit from a stronger supplier network. Capabilities range from basic skills to assure performance (e.g. cost, quality or delivery) to continuous improvement and innovation abilities (Handfield et al., 2000). The transfer of capabilities can be accomplished through multiple supplier-development practices and the implementation of organizational routines that support interaction, the interchange of information and the implementation of best practices to improve the quality of the knowledge to be transferred.

Supplier development is a well-integrated working method in, for example, the Japanese auto-manufacturing industry where a number of (buying) firms have achieved benefits from supplier development (Sako, 2004). Supplier development can imply performance management (Forslund and Jonsson, 2007; 2009) as well as more resource intensive practices such as investing time and resources into the development of e.g. the supplier’s production capabilities (Sako, 2004). Firms in assembly industries exhibit above-average supplier development (Wagner, 2006), indicating that supplier development is common for suppliers of components and (sub) systems included in the customer’s final product. Krause and Scanell (2002) propose that service firms (e.g. retail chains) to a larger extent use market forces to drive supplier improvement thus indicating that the resource investment in supplier development is lower for firms buying generic and/or customer specific products for re-sale. Most supplier-development initiatives are made for or performed with strategic suppliers who supply critical high-volume products (Handfield et al., 2000; Krause et al., 1998) as managerial and other resources are scarce and need to be focused into important relationships (Holmen et al., 2013). Supplier development requires closer interaction between the buyer and the supplier. Supply-base reduction is said to be a prerequisite (Trent and Monczka, 1999) as it is may not be feasible for the buyer to work with a large supply base. This means that supplier development is related to other managerial approaches for supplier relationship management (Holmen et al., 2013). Buyers are trying to create competitive advantages based on supplier-development initiatives (Busse et al., 2016; Krause and Ellram, 1997b), but before embarking on a formal supplier-development program, it is suggested that the buying firm critically assesses aspects of its own operations (e.g. specification, communications, internal training and organizational roles) that affect the supplier performance (Lascelles and Dale 1990).
There are several definitions of supplier development—most of which are similar yet slightly different. In terms of definitions in extant literature, an early definition is the one by Watts and Hahn (1993: 12). They define supplier development as “a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers’ technical, quality, delivery, and cost capabilities and to foster ongoing improvements”. Whereas this definition encompasses the cooperative effort between buyer and supplier, this is not present or explicit in what seems to be the most widely used definition of supplier development—the definition by Krause and Ellram (1997a; b). Krause and Ellram (1997a: 39; 1997b: 21) define supplier development as “any effort of a buying firm with a supplier to increase its performance and/or capabilities and meet the buying firm’s short- and/or long-term supply needs”. Krause and Ellram’s (1997a; b) definition is wide in scope and includes anything the buyer does to affect the supplier’s capabilities and/or performance. This could, for example, include creating competition between suppliers (Krause and Ellram, 1997b). Putting suppliers into competition would then be seen as a supplier-development practice. In order not to exclude any dimensions of supplier development this research takes a broad perspective of supplier development, and the point of departure is Krause and Ellram’s (1997a: b) definition that opens up for any activity intended to affect the supplier’s capability and/or performance.

1.1.1 The importance of the supplier’s experiences and perceptions in supplier development

According to Li et al. (2012) there is a growing interest in supplier development in business and among scholars. The scholarly interest in supplier development is, however, primarily focused towards the buyer in the buyer-supplier relationship. Terpend et al. (2008) investigated publications on buyer-supplier relationships and concluded that only limited research has been conducted on the buyer-supplier relationship from the supplying firm’s point of view. In their content analysis of four prominent US-based journals2 from 1986 to 2005, they found that only 6 of 151 reviewed articles employed a dyadic approach that sought supplier opinions. From the 151 selected articles, 25 regarded supplier development specifically. The authors propose additional studies that include the supplier’s perspective; this has later been supported by e.g. Mortensen and Arlbjørn (2012), Nagati and Rebolledo (2013) and Ramsay et al. (2013); who further state that “there is [thus] an overall bias towards the interest and needs of buyers [. . .]”. As the supplier may very well perceive supplier development in a different light than does the buyer, their experiences and perceptions may not be well-understood by either the research community.

---

2 Journal of Supply Chain Management (JSCM), Journal of Operations Management (JOM), the Academy of Management Journal (AMJ) and Strategic Management Journal (SMJ)
or the buyers. Arroyo-López et al. (2012) and Nagati and Rebolledo (2013) point to the need for more studies of buyer-supplier relationships where the supplier’s point of view is taken into consideration to reduce the prevailing knowledge gaps.

Forker et al. (1999) states that buyers and suppliers may have different perceptions of the value of different supplier-development practices. In their study, they revealed that the buyer assigned higher value to their supplier rating system and the technical assistance they provided than did their suppliers. On the other hand, the suppliers rated the clarity of customer specifications higher than did the buying firm. The fact that buyers and suppliers may have differing views is a practical problem that may negatively affect the supplier-development outcome. Buyers do not usually incorporate the expectations of the supplier in deciding on supplier development, nor do they seek the feedback of the supplier despite the fact that e.g. Mortensen and Arlbjørn (2012) argue that a supplier-development approach where both parties’ perspectives and interests are taken into consideration is likely to increase the performance and value potential of the relationship. This is supported by Roloff et al. (2015). Mortensen and Arlbjørn (2012) further claim that the literature implicitly assumes that the supplier is willing and motivated to take part in and implement supplier development, but that this is not necessarily true, and as suppliers have their own strategic agendas, buyers should consider supplier perspectives and motivations when implementing supplier development. Mortensen and Arlbjørn hence pinpoint a practical relevance in understanding the supplier’s experiences and perceptions in order to unlock hidden potentials in supplier development for the potential benefit of both the buyer and the supplier.

Ramsay et al. (2013) state that a supplier need not only be capable of responding to a buyer but also willing and motivated to do so. As suppliers are not passive receivers of development practices but rather a collaborative partner (Holmen et al., 2013; Ramsay et al., 2013) with its own developments, there is a need for buyers to understand the role, interests and motivations of the supplier in order for the supplier development to become or stay successful. Those interests and motivations, this thesis argues, are in part an effect of the fit between the suppliers’ own strategic agenda and the supplier-development agenda of the buyer. The complexities of the supplier development, as experienced by the supplier, are also argued to have an effect on those supplier interests and motivations. This stresses the need to incorporate the supplier experiences and perceptions in research. The relevance of the supplier point of view and the relative dearth of studies addressing it open up this avenue for research as the supplier’s experiences and perceptions can improve the supplier-development outcome and enrichen
the scholarly discussion by increasing the understanding of supplier development for the benefits of both buyer and supplier.

1.1.2 The importance of studying barriers and enablers

From the buyer’s perspective, the benefits of supplier development are transaction specific and non-transferable and a buyer’s fear of opportunistic behavior on the supplier’s behalf may influence the willingness of the buyer to make the necessary investments (Li et al., 2012). Implementing supplier development can be challenging to both buyer and supplier. It may require the supplier and the buyer to commit to invest financial, capital, and human resources, and the sharing of sensitive information might be required (Handfield et al., 2000). If the relationship dissolves prematurely, the benefits of supplier development cannot be reaped; hence, supplier development can be a high-risk endeavor for the buyer (Krause et al., 2000) and the supplier (Krause, 1999) alike. In order to be involved in supplier development, the buyer needs to be sure that the investments are worthwhile, while the suppliers must accept that their best interest is in accepting assistance and direction from the buyer (Sako, 2004).

According to Marksberry (2012) and Sako (2004) the firms who have reached a successful level of supplier development, all invest a considerable amount of resources in teaching the suppliers in different business methods, referred to as direct supplier development. In general terms, higher involvement from the buyer’s side in supplier development has been proposed as a means of securing more successful supplier development (Krause and Ellram, 1997b; Ghijsen et al., 2010). Wagner and Krause (2009) conclude that the less-involved/indirect supplier development, e.g. evaluations or incentives, have an influence on supplier performance but only contribute to the development of supplier capabilities to a very small degree. Indirect supplier-development practices are therefore seen as sufficient for performance development but insufficient for the development of supplier capabilities. This is supported by Wagner (2010). Contrary to those findings, Arroyo-López et al. (2012) show that indirect supplier development contributes to neither supplier performance improvement, nor to capability enhancements. Indirect supplier development may increase a supplier’s willingness to develop, not necessarily the capacity to do so (Arroyo-López et al., 2012), and the effects of indirect supplier development has hence been challenged. These differing conclusions are interesting as they cause the understanding of potential barriers and enablers at play to become increasingly important.

Barriers are said to adversely affect the supplier-development outcome (Busse et al., 2016; Lee and Klassen, 2008), whereas an enabler assists and hence positively affects the firm in achieving development (Lee and Klassen, 2008).
Barriers and enablers may be different types and may arise in different places within or outside the buyer-supplier relationship. They may be related to the buyer or the supplier (Gotzamani and Theodorakoglou, 2010; Handfield et al., 2000) or to the interaction, interface or relationship between the buyer and supplier (Forslund and Jonsson, 2009; Handfield et al., 2000). Forslund and Jonsson (2009) structure the barriers into different types based on their character: relationship-related barriers or barriers related to operational tools. They further state that it is not enough to work with relationship-related barriers—barriers of both types must be focused on and managed; therefore looking broadly for barriers and enablers is perceived as important. According to Busse et al. (2016), barriers may stem from a certain sourcing context where the buyer and supplier interact wherein the sourcing geography in terms of global, local or regional sourcing can be seen to affect the barriers and enablers at play. As barriers can be of different types it is important to keep a broad perspective of what barriers and enablers may be. According to Handfield et al. (2000), the biggest challenge or barrier in supplier development is cultivating mutual trust. Arroyo-López et al. (2012) claim that benefits from supplier development can be reaped only if there is trust, commitment, collaborative communication and joint decision making between the buyer and the supplier, i.e. these factors can be seen as enablers of supplier development.

Barriers as well as enablers influence the outcome of supplier development, and both must be identified, addressed and understood in order to reach the goals of the supplier development. Barriers must be identified and mitigated or overcome, and enablers must be leveraged. By further investigating barriers to and enablers of supplier development and in doing so through the inclusion of the supplier view, knowledge gaps surrounding this phenomenon can be limited. With an increased knowledge, a practitioner’s possibility of successfully implementing supplier development increases. Krause and Ellram (1997a) question if buyers that are not satisfied with the result of their supplier-development effort have emphasized the identified barriers and enablers enough. How the barriers to and enablers of supplier development are managed may very well be what makes the supplier development a success or a failure, and this shows a practical relevance in investigating barriers to and enablers of supplier development in order to further understand what they are and where and why they appear.

1.2 Purpose and research questions

Based on the discussion above, the inclusion of the supplier’s experiences and perceptions could enrichen the scholarly discussion on and understanding of supplier development, simultaneously unlocking hidden potentials in supplier
development. Valuable insights can be created, and by understanding how suppliers experience supplier development, a contribution can be made to extant literature. This thesis takes as its starting point the fact that the success of supplier development is dependent on the commitment and ability of the supplier to participate in the supplier-development effort sponsored by the buyer. Barriers and enablers are central to the success of supplier development, and they need to be identified and understood in order to be addressed. This research aims to limit, not close, the knowledge gaps surrounding supplier development, and specifically knowledge gaps related to barriers and enablers of supplier development, through the addition of the supplier’s point of view. Consequently, the overall purpose of this licentiate thesis is to:

. . . create an increased understanding of suppliers’ experiences and perceptions of supplier development and of the related barriers and enablers.

This increased understanding is created by the exploration of the suppliers’ experiences of supplier development and perceptions of barriers and enablers related to the same. In the quest to fulfil this purpose, research questions were developed and functioned as guides throughout the research process. The identification of the research questions (RQ1 and RQ2) was prompted by the literature review revealing that most research in supplier development, as well as research in supplier development concentrating on barriers and enablers, has been performed with the buyer in focus (Handfield et al., 2000; Krause and Ellram, 1997a:b; Routroy and Pradhan, 2013). Contrasting this with the supplier’s point of view is an important aspect of this research, giving voice to a different perspective on a familiar phenomenon.

The first research question (RQ1) refers to the supplier’s experiences and perceptions of supplier development and the understanding of what supplier development is and ought to be.

RQ1: How do suppliers experience and perceive supplier development?

With a basis in this research question, this thesis elaborates on how suppliers experience the supplier development they are subjected to in relation to content structure and complexities. Tentative explanations as to why the suppliers experience and perceive the supplier development in the way they do are offered. This research question is important in and of itself as it provides increased understanding of supplier development as such. It is also important as a foundation for understanding the findings related to research question two (RQ2).
The second research question (RQ2) refers to barriers and enablers in supplier development based on the supplier’s experiences and perceptions.

**RQ2:** What types of barriers and enablers do suppliers perceive and what tentative explanations can be offered for the perceived barriers and enablers?

In order to answer this research question, the identification of barriers and enablers must first take place. Then, based on this research question, this thesis elaborates on the tentative explanations for their appearance in order to create increased understanding of supplier development and its related barriers and enablers in line with the purpose of this thesis. The supplier’s view of barriers and enablers may give additional insights into not only what barriers and enablers are present, but also where they arise, and what they mean for the supplier development as such.

As this research focuses on the suppliers in supplier development, it takes the opportunity to discuss and evaluate the definitions of supplier development presented in the extant literature. It elaborates on a suitable definition taking the supplier’s point of view into consideration in order to further secure fulfilment of the purpose of this research.

**1.3 Structure of the thesis**

The main parts of this licentiate thesis are the main thesis and the appended papers referred to as papers one, two and three. It is possible to read the main thesis without having to read the appended papers, though they do play an important role in many instances. The papers also have their own contributions, outside the scope of the thesis framework. The outline of the thesis is presented in figure 1.

![Figure 1. The outline of the thesis](image-url)
The first chapter of the main thesis provides an overview of the background and relevance of the topic reflected in this research. The purpose is expressed together with the two research questions addressed in this research.

The theoretical frame of reference of the different subject fields that form the basis of this thesis is presented in chapter two.

The third chapter, the research methodology presents how the research for this licentiate thesis has been conducted. The different studies and research design are presented. Studies as well as papers are discussed in terms of the researchers’ contributions as some studies, or parts of studies, have been performed in tandem with other researchers and as one of the papers is co-authored. Research quality is discussed in order for the reader to better evaluate the research.

Chapter four summarizes the empirical findings to answer RQ1.

Chapter five discusses the empirical findings from chapter four in relation to the frame of reference in order to answer RQ1. It also discusses the findings from papers one, two and three in relation to the frame of reference in order to provide answers to RQ2.

Chapter six provides conclusions drawn from the research and future research agendas are proposed.

Appended are the three papers.
2. Theoretical frame of reference

The frame of reference holds the main concepts used in this research and discusses the motivation for selecting the specific theoretical points of departure. The chapter is divided into five main sections. The first section (2.1) presents supplier development and supplier development on three levels of abstraction: the supplier-development practices, the supplier-development program and the experienced total of supplier development. The experienced total refers to supplier development as experienced by the supplier taking their network of buyers into consideration. This discussion is followed by the conceptualization of barriers, enablers and related concepts (2.2). Barriers and enablers in supplier development are discussed in section three (2.3). The next section (2.4) focuses on factors supposed to affect supplier development and the barriers and enablers at play as they may offer explanations as to why the barriers and enablers arise. The fifth and final section (2.5) summarizes and synthesizes the theoretical underpinnings and provides the frameworks used in the discussion of the research questions.

2.1 Supplier development

Krause and Ellram (1997a: b) present what seems to be the most cited definition in extant literature, cited by: Arroyo-López et al. (2012), Ghijsen et al. (2010), Handfield et al. (2000), Humphreys et al. (2004:2011) Li et al. (2012) Sánchez-Rodríguez et al. (2005) and others. As supplier development is an area of active research, this is not the only definition in extant literature. Similar definitions appear in Krause (1997) and Krause et al. (2000), cited by e.g. Humphreys et al., 2004, 2011, and Busse et al., 2016. Supplier development is defined as “a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers’ technical, quality, delivery, and cost capabilities and to foster ongoing improvements” (Watts and Hahn, 1993: 12), focusing on the more cooperative nature of supplier development. Nagati and Rebolledo (2013) and Routroy and Pradhan (2013) also emphasize the cooperative effort between buyer and supplier much like Watts and Hahn.
(1993) do. A slightly narrower definition is the one by Hartley and Choi (1996: 37) that focuses on “formal activities”. A selection of definitions is presented in Table 1 below to present both the most commonly referenced definitions and to show the scope of how supplier development is used and defined. In a number of papers there is no clear definition but rather a discussion of the concept, e.g. as in Hahn, et al. (1990). Routroy and Pradhan (2013) present many of the definitions without selecting one, however specifying that supplier development is for suppliers not up to expectation.

<table>
<thead>
<tr>
<th>Source</th>
<th>Inspiration</th>
<th>Definition or discussion of the concept</th>
<th>Referenced by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hahn et al. (1990)</td>
<td>Leenders (1989)</td>
<td>Any systematic organizational effort to create and maintain a network of competent suppliers. Discusses new and existing sources, concludes that SupDev programs should improve technical, quality, delivery and cost capabilities.</td>
<td>Krause et al. (1997); Nagati and Rebolledo (2013); Routroy and Pradhan (2013)</td>
</tr>
<tr>
<td>Hartley and Choi (1996)</td>
<td></td>
<td>Formal activities undertaken by customers to improve the performance and capabilities of existing suppliers.</td>
<td></td>
</tr>
<tr>
<td>Krause and Ellram (1997a; b)</td>
<td></td>
<td>Any effort of a buying firm with a supplier to increase its performance and/or capabilities and meet the buying firm's short and/or long-term supply needs.</td>
<td>Arroyo-López et al. (2012); Ghijsen et al. (2010); Handfield et al. (2000), Humphreys et al. (2004-2011); Li et al. (2012); Praxmarer-Carus et al. (2013); Sánchez-Rodríguez et al. (2005); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Krause et al. (1998)</td>
<td></td>
<td>Any set of activities undertaken by a buying firm to identify, measure and improve supplier performance and facilitate the continuous improvement of the overall value of goods and services supplied to the buying company’s business unit.</td>
<td>Krause et al. (2007); Mortensen and Arljørn (2012), Routroy and Pradhan (2013)</td>
</tr>
<tr>
<td>Trent and Monczka (1999)</td>
<td></td>
<td>A concisous effort to identify, integrate and develop key supply chain members, improve performance capabilities or develop new performance capabilities.</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Supplier development definitions

The definitions in extant literature stem from supplier-development research primarily focusing on the buyer. Dunn and Young (2004) state that supplier development is employed in buyer/supplier relationships where some level of cooperation or collaboration is present and that little supplier development takes place in relationships based primarily on price; as those relationships are not valued sufficiently by either buyer or supplier. This is in line with Handfield et al. (2000) and Krause et al. (1998) who state that most supplier-development initiatives are made for strategic suppliers who supply critical, high volume products. Dunn and Young (2004: 20) further state that the core objective of supplier development is “to synchronize supplier capabilities with purchaser expectations”. Watts and Hahn (1993) propose that supplier-development efforts should focus on developing suppliers’ future capabilities in technology and product development rather than on improving current quality and cost.
In order to reach the desired outcome, the buyer’s supplier-development effort contains minimum of two high level components of supplier development. The components of supplier development described in extant literature are the supplier-development practices deployed within a buyer/supplier relationship and the supplier-development program; a systematic and coordinated effort for supplier development. From the supplier’s perspective, the supplier development they are subjected to can be seen as an individual practice or the supplier-development program of a specific buyer; however, it can also be seen through the lens of the network as the supplier’s ‘experienced total’ of supplier development.

2.1.1 The supplier-development practice
Supplier-development research (e.g. Krause and Ellram, 1997b; Krause et al., 1998; Krause et al., 2000; Sako, 2004; Sánchez-Rodríguez, 2009; Wagner and Krause, 2009) has identified a wide variety of supplier-development practices (Wagner, 2006; Krause and Scanell, 2002) undertaken by buyers in order to develop the performance or capability of the suppliers in the supplier base. Supplier-development practices are also referred to as supplier-development activities (e.g Krause et al., 2007; Nagati and Rebolledo, 2013; Wagner and Krause, 2009; Watts et al., 1990). Examples of supplier-development practices are goal setting (Krause et al., 1998) and supplier evaluation and feedback (Krause and Scanell, 2002; Sako 2004; Wagner, 2006) through performance management (Forslund and Jonsson, 2007; 2009), supplier audits (Krause et al., 1998), use of supplier reward and recognition systems (Krause et al., 1998; Wagner, 2006), shop floor assistance (Krause and Ellram, 1997a: b; Sako, 2004), and direct investment in supplier operations (Krause and Ellram, 1997b; Krause et al., 1998; Wagner, 2006).

The supplier-development practices can be said to be either indirect or direct in regard to the buyer’s involvement and resource commitment to the supplier’s development (Wagner, 2006; 2010). In indirect supplier development, the buyer only invests limited resources and enforces supplier improvement by offering incentives e.g. potential of increased business, or communicating performance goals and supplier evaluation results e.g. supplier ratings or performance management (Krause et al., 2000; Forslund and Jonsson, 2007). Through supplier evaluations the buyer can identify the supplier’s performance, compare it with other suppliers and provide directions for improvement. In indirect supplier development the buyer makes use of the market forces or communication—referred to as influence strategies (Ghijsen et al., 2010; Wagner, 2010)—to achieve the performance improvements of the supplier. Direct supplier development includes relationship or transaction specific investments of resources—capital and/or human. Another direct supplier-development practice is to integrate the supplier into the buyer’s
product development system. A selection of supplier-development practices from the extant literature is presented in Table 2 below. The practices range from more indirect to more direct practices (although there is no clear-cut line between what is referred to as indirect or direct practices in extant literature). The practices include but are clearly not limited to the following:

<table>
<thead>
<tr>
<th>Supplier-development practice</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive pressure</td>
<td>Krause et al. (2000); Sánchez-Rodríguez et al. (2005); Wagner (2006); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Requests for performance improvement</td>
<td>Wagner, 2006; Ghijsen et al. (2010); Sánchez-Rodríguez et al. (2005);</td>
</tr>
<tr>
<td>Supplier incentives</td>
<td>Arroyo-López et al. (2012); Krause and Ellram (1997a); Krause et al. (1998; 2000); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Supplier reward and recognition</td>
<td>Arroyo-López et al. (2012); Krause et al. (1998); Sánchez-Rodríguez et al. (2005); Wagner (2010)</td>
</tr>
<tr>
<td>Supplier assessment/evaluation (based on performance goals)</td>
<td>Forslund and Jonsson (2007; 2009); Krause et al. (1998; 2000); Li et al. (2012); Sánchez-Rodríguez et al. (2005); Wagner and Krause (2009; 2010)</td>
</tr>
<tr>
<td>Supplier and/or buyer site visits</td>
<td>Krause and Ellram, 1997a; Krause et al. (2000); Sánchez-Rodríguez et al. (2005); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Supplier audits</td>
<td>Arroyo-López et al. (2012); Wagner and Krause (2009); Wouters (2007)</td>
</tr>
<tr>
<td>Human support, on-site consultation</td>
<td>Sánchez-Rodríguez, et al. (2005); Sako (2004); Wagner (2006), Wagner and Krause (2009)</td>
</tr>
<tr>
<td>Training and education of supplier personnel</td>
<td>Arroyo-López et al. (2012); Krause and Ellram (1997a); Krause et al. (1998; 2000); Sánchez-Rodríguez et al. (2005); Wagner (2006); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Staff exchange</td>
<td>Krause et al. (2000); Wagner and Krause (2009); Li et al. (2007)</td>
</tr>
<tr>
<td>Dedicating personnel to the supplier</td>
<td>Krause et al. (2000); Wagner (2006); Wagner and Krause (2009)</td>
</tr>
<tr>
<td>Investing in production equipment/specialized assets</td>
<td>Arroyo-López et al. (2012); Krause et al. (1998); Wagner (2006); Wagner and Krause (2009); Wouters et al. (2007)</td>
</tr>
<tr>
<td>Supplier involvement in new product development</td>
<td>Carr and Kaynak (2007); Krause et al. (1998); Li et al. (2012); Sánchez-Rodríguez, et al. (2005); Wouters et al. (2007)</td>
</tr>
</tbody>
</table>

Table 2. Supplier-development practices ranging from indirect to direct

Different supplier-development practices may have different goals, and Wagner and Krause (2009) differentiate between supplier-development goals that focus the improvements in short-term performance and the development of more long-term capabilities like product innovation, collaboration and continuous process improvement. The supplier-development practice that takes place within a buyer-supplier relationship is hence an activity with the aim of improving either supplier short-term performance or long-term capabilities.
According to Wagner (2006) the evaluation of the supplier is correlated to the more resource-intensive direct supplier-development practices, indicating that formal evaluation is used if and when more resource-intensive supplier-development practices are to be implemented. The evaluation of supplier performance can take place through performance management (Forslund and Jonsson, 2007) and involves e.g. selecting and defining metrics (i.e. deciding what to measure, setting targets for performance and measure performance) (Forslund and Jonsson, 2007; Ülgen and Forslund, 2015). Hahn et al. (1998) explain that supplier evaluations and feedback of results are not enough as supplier evaluation results identify weaknesses (e.g. problems with maintaining quality) but are not ‘directive,’ nor do they identify the root cause of the problem. E.g. poor workmanship or deficiencies in the manufacturing process or design could all be the cause of the same problem. Hence, the supplier evaluation of performance is not necessarily enough to identify the root cause, nor to create improvements and the problems need to be further investigated to pinpoint the causes. This is in line with the performance management process as proposed by Forslund and Jonsson (2007) as it also includes analysis and acting on the results. The indirect supplier-development practices can hence be perceived as key enablers of other supplier-development efforts (Krause et al., 2000; Wagner and Krause, 2009) and explain why buyers engage in indirect supplier development. The indirect supplier-development practices can hence be perceived as motivators for further supplier development, both as a commitment to the future and as a basis for direct supplier development at the present time (Krause, 1997; Yawar and Seuring, 2015).

2.1.2 The supplier-development program

Recognizing the long-term and strategic benefits of supplier development, many companies have established supplier-development programs and teams (Wagner, 2010). Hahn et al. (1990: 3) define the supplier-development program as “any systematic organizational effort to create and maintain a network of competent suppliers”, including the creation of new sources (narrow perspective) and practices to upgrade existing supplier’s capabilities (broader perspective). They propose that when the supplier-development program is viewed from the broader perspective, supplier development tends to become more proactive and brings more long-term benefits for the buyer as well as the supplier. Krause et al. (1998) look at supplier development from a slightly different angel. They state that buyers tend to use supplier development as either a strategic tool, through the allocation of supplier-development resources where they will provide the buyer with a competitive advantage, or as a remedial or reactive tool by focusing resources onto suppliers with poor performance to correct obvious deficiencies. The strategic effort is what they refer to as the supplier-development program. It involves
tools to identify critical suppliers and commodities and focus the supplier development resources to those selected suppliers. Buyers with a strategic view on supplier development have formal performance measurement systems in place as a means of formally assessing the suppliers’ cost, quality, service, delivery technology and environmental performance. Wagner (2010) advises buyers to strengthen their systematic supplier-development programs in order to identify and evaluate deficient suppliers as well as to conduct and follow up on supplier-development efforts. Strategic efforts (Krause et al., 1998) significantly increase the buyer’s involvement in the supplier’s processes and require a substantial dedication of resources in supplier development. This is in opposition to more traditional purchasing practices, still recommended in the supplier-relationship management literature (see e.g. O’Brien, 2012) claiming that close relationships are counterproductive to the buyer and hence recommending an arm’s-length approach to avoid dependencies. According to Brandes et al. (2013) this type of relationships is predominant in the OEMs in e.g. the automotive industry, with Japanese automakers excluded.

Hahn et al. (1990) identifies a multi-step process they refer to as the supplier-development program including supplier performance evaluation, supplier-development activities (identifying areas for improvement), consensus development plans (agreeing upon and engaging with a development team), implementation and evaluation. Multiple supplier-development practices may thus be deployed within the same buyer-supplier relationship. The supplier-development program can consequently be viewed as the combination of supplier-development practices deployed within a specific buyer-supplier relationship (Mortensen and Arlbjørn, 2012; Arroyo-López et al., 2012). The supplier-development program is introduced in order to evaluate suppliers as well as to conduct and follow up on supplier-development efforts. In this research the supplier-development program is seen as the supplier-development practices deployed in a specific buyer/supplier relationship in order to transfer knowledge from the buyer to the supplier in a systematic and coordinated (Wagner, 2010) effort.

2.1.3 The experienced total of supplier development

All buyer/supplier relationships are embedded in wider networks (Choi and Kim, 2008; Håkansson and Snehota, 1995). In a supply chain or network context, a buyer and supplier are involved in interactions with other actors that can influence the relationship between the two positively and/or negatively (Gadde et al., 2010). Supplier development is not isolated from other activities taking place between the buyer and supplier, nor is it isolated from ongoing activities between the buyer and supplier and other actors in their respective networks. According to the Industrial Marketing and Purchasing group (IMP), a network consists of dyadic relationships involving interactions between
actors, activities and resources (see e.g. Gadde, et al., 2010; Håkansson and Snehota, 1995). Actors can be individuals, groups of individuals, firms or groups of firms. Through the actors, the business landscape becomes identifiable and possible to handle and influence. Firm actors control resources and activities (Ellegaard et al., 2003), and different actors can have different perceptions of what capability attributes (see e.g. Ross et al., 2006) of the supplier are important and how they want to utilize and develop those capabilities. According to Jahre and Fabbe-Costes (2005), the network approach complements the supply-chain approach with indirect connections between relationships. As supplier development does not take place in a vacuum, the network approach to studying supplier development is a viable one.

Choi and Kim point out that the supplier will be affected by its own supply network. The supplier's other customers may be important drivers of the supplier's performance, capability development and long-term survival (Hartley and Choi, 1996). If the buyer has similar needs, the buyer can leverage this development. However, when there are competing demands from multiple customers, the supplier may not be able to be responsive toward the needs of the buyer (Holmen et al., 2013); or, as stated by Jahre and Fabbe-Costes (2005), there is a trade-off between adaptation and adaptability (flexibility). Choi and Kim (2008) refer to this as structural embeddedness. Technology-based similarities between customers may be more important than industry-focused similarities for the developments of the supplier (Holmen et al., 2013). If a supplier has customers in different industries, this will affect the supplier’s ability to maintain adequate performance levels. It may imply that the supplier will develop capabilities that are not sufficiently specialized towards the buyer, but it could also mean the opposite as the supplier will have multiple sources of information and access to a wider spectrum of resources and these, in turn, may affect positively the buyer.

Through interaction between actors, performance improvement potential can be identified and delivered through resource combining or activity configuration across firm boundaries. Through the substantial adaptation of resources and adjustments of activities, the actors become involved in long-term relationships. Alone or jointly, actors decide what activities to carry out and what resources are to be utilized when performing those activities. Suppliers control various resources and hold various capabilities that are utilized by the buyers to different extents. Buyers can call on or bring their own resources into play in order to better exploit supplier resources, or they can encourage suppliers to modify their resources in order to better fit those of the buyer (Gadde, et al., 2010; Håkansson and Snehota, 1995). The latter is included in what this thesis refers to as supplier development. The
configuration of activities and combination of resources affect firm performance. Companies that excel in the utilization of their own and network resources can consequently excel in performance (Gadde et al., 2010).

Through exchange processes, actors develop relationships with each other, and bonds are created between individual actors (Ellegaard et al., 2003; Gadde et al., 2010); actors who, according to Håkansson and Snehota (1995: 192), “endow business networks with life”. Actor bonds have a social content, composed of mutual orientations, obligations, commitments and selective preferences. The bonds demonstrate how active an actor is in relation to another actor. Supplier development (Nagati and Rebolledo, 2013) contributes to the development of resource ties and actor bonds between the buyer’s purchasing staff and the supplier’s representatives (Gadde et al., 2010) and, between firms, bonds orient resources and activities towards specific others (Håkansson and Snehota, 1995). Over time, interaction reduces uncertainty and is a means of managing ambiguity; it is however important that the individuals involved get to know each other well on a personal basis and come to understand the operations of both the firms and how they can better fit together. Contacts among individuals should be encouraged as confidence building depends on it. Social interaction is the building block of trust (Gadde et al., 2010), and commitment depends on it (Håkansson and Snehota, 1995). This view is contradictory to the supplier management literature (see e.g. O’brien, 2012) that recommends arm’s-length relationships and the avoidance of supplier dependencies. When individual actors in relationships change, the bonds between actors will change. Some relationships will be disrupted, and new relationships will need to be established.

The interaction process is influenced by what is ongoing at the moment, i.e. a specific episode. Each episode involves specific actors, deals with certain aspects and happens at a certain time and place. Each episode is also part of a more extended time frame connecting it to past and future episodes. What takes place within a certain episode is affected by previous episodes and creates expectations for future episodes. Interaction is strongly connected to time (Gadde et al., 2010). Interaction is characterized by both conflict and cooperation because the actors have both contradictory and shared interests. In a long-term perspective, the buyer and supplier may have diverse opinions of the preferred direction for technical developments, based on what they see as important for the future positioning of the two firms (Gadde et al., 2010). Similar to supply management posing a number of challenges for the buyer regarding how to manage a network of suppliers outside the buyer’s juridical control, consisting of presumably self-interest driven firms with a large degree of complexity (Ellegaard et al., 2003), challenges may be faced by the supplier
in terms of being developed by many different buyers with potentially different interests simultaneously (Ülgen, 2016).

2.2 Conceptualizing barriers and enablers

The concept of barriers is common in management research and specifically within supplier development. Barriers can be defined in many ways, and the Oxford English Dictionary (2015) defines a barrier as “a circumstance or obstacle that keeps people or things apart or prevents communication or progress” (Busse et al., 2016: 445). Merriam-Webster (2017 online) defines it as “something immaterial that impedes or separates”. Concepts similar to barriers are used in extant literature: such as obstacles (Forslund and Jonsson, 2009), pitfalls (Handfield, et al., 2000) and challenges (Genovese et al., 2014). In addition, see e.g. Gotzamani and Theodorakioglou (2010) where barriers and obstacles are used interchangeably, and Sulong et al. (2015) who instead use barriers and challenges. Enablers too can be defined in different ways. The Oxford English Dictionary (online) defines an enabler as “one who enables”. Merriam Webster (2017 online) defines it as “one that enables another to achieve an end”. Similar concepts are used in extant literature, such as success factors (Krause and Ellram, 1997b), facilitating factors (Sulong et al., 2015) and facilitator (Busse et al., 2016). See also specifically Sulong et al. (2015) who use enablers and facilitating factors interchangeably. For the purpose of this thesis, the terms barriers and enablers are used with an awareness of the similar, yet sometimes different, concepts available in extant literature.

2.2.1 Barriers

Gotzamani and Theodorakioglou (2010) view barriers as something that hinders the successful implementation of close supplier-buyer relationships. Forslund and Jonsson (2009) give a similar description of the concept; however, they use the term obstacle, focusing on supply-chain integration. Similar views of barriers are held by, among others, Handfield et al. (2000), who state that barriers impede the implementation of supplier development, and George et al. (2016), who conclude that certain barriers considerably affect the attainment of the goal.

Busse et al. (2016: 446) see a barrier as “a [. . . ] factor that obstructs the translation of efforts into outcomes”, which is in line with previous views. However, it is important to note that they are very specific in their definition and emphasize ‘contextual factors’ i.e. factors that stem from the context, based on socio-economic differences, spatial and linguistic distance, and cultural differences. Those are therefore related to context, rather than to the practices, resources or relationships within and between organizations. As they
see barriers to be contextual, the barriers can be expected to be higher or different in a global sourcing context as compared to those within a local or regional sourcing context. Also, Papakiriakopoulos and Pramatari (2010) mention barriers related to context; instead of sourcing context (in terms of geography) they point to the context of a complex organizational setting. Gotzamani and Theodorakioglou (2010) revealed barriers related to buyers and suppliers—as did Handfield et al. (2000)—and also identified barriers connected to the interface between the buyer and supplier. Handfield (2000) refers to them as buyer-specific, supplier-specific and interface-related. Contrary to contextual barriers, Sancha et al. (2015) state that barriers are internal to the organization and institutional pressure is seen to remove barriers and facilitate the formation of enablers. According to George et al. (2016), barriers can be cognitive, technical or organizational, i.e. relate to unclear responsibility or lack of knowledge; to lack of systems support or information; and finally lack of supportive organizational structures. Forslund and Jonsson (2009) divide barriers into two distinct categories—those related to (supplier) relationships or to operational tools. To summarize this discussion on barriers thus far: barriers can be seen as factors that obstruct the translation of efforts into outcomes, and they can be grouped into different types, found within a given context or internally within the actors or within the relationship between the actors. Barriers can also be seen as e.g. organizational, technical, or cognitive.

2.2.2 Enablers

Lee and Klassen (2008: 580) define an enabler as “a factor that assists a firm in achieving development”. Sancha et al. (2015) uses a very similar definition to Lee and Klassen (2008). Similar concepts for factors influencing the supplier-development success are e.g. success factors (Krause and Ellram, 1997b), critical success factors (Routroy and Pradhan, 2013), critical elements (Krause and Ellram, 1997a), critical factors (Chidambaranathan, et al., 2009), antecedents (Krause, 1999) and drivers (Lee and Klassen, 2008). According to Lee and Klassen (2008) ‘drivers’ and ‘enablers’ are sometimes used interchangeably; however, they propose the distinction that drivers initiate and motivate firms to begin the supplier development, and the enabler assists in achieving the development. Antecedents (Krause, 1999) or triggers (Yawar and Seuring, 2015) can also be seen as factors that motivate and precede supplier development, more resembling a driver than an enabler as presented by Lee and Klassen (2008). Batson (2009) sees success factors as prerequisites for the supplier-development effort. Krause and Ellram (1997a: 23) use the term critical elements for what “appear to be critical to the success of the supplier-development effort” and success factors (1997b: 39) for “factors contributing to supplier development success”. Both of those factors include
supplier-development practices, i.e. what is done in supplier development and are not limited to external factors that affect supplier development.

The concept of facilitator is used in a similar manner by Busse et al. (2016) to denote a “contextual condition that fosters the translation of efforts into outcomes”, again pointing to the importance of context. Sancha et al. (2015), on the other hand, sees enablers as firm specific capabilities and country-specific external pressures as drivers. George et al. (2016) divide enablers into cognitive, organizational and technical enablers. Kumar and Routroy (2016) works with enablers to become a preferred customer (preferred customer enablers), regarding enablers as attractive features of the buyer that enable them to receive this status with the supplier. An enabler is not necessarily sufficient to ensure development, but their absence may hinder, retard or constrain development (Lee and Klassen, 2008). To summarize the discussion on enablers so far: similar to barriers, enablers can be seen as factors that foster the translation of efforts into outcomes, and they can be of different types determined by context, internally within the actors or within the relationship between the actors. They can be of different nature, such as cognitive, organizational or technical.

2.3 Barriers and enablers in supplier development

A number of enablers of supplier development have been suggested in literature: Krause and Ellram (1997a) propose the top management commitment and support: two-way multifunctional communications, cross-functional teams and a high buyer share of supplier output. Cultivating mutual trust is said to be the biggest challenge in supplier development (Handfield et al., 2000). Arroyo-López et al. (2012) claim that benefits from the supplier development can be reaped only if there is trust and joint decision making between the buyer and the supplier. Handfield (2000) proposes a long-term perspective from the buyer’s side. Li et al. (2012) mention specific goals and long-term commitments. Some of the concepts, e.g. trust, are described as barriers when not present and as enablers when present. Barriers and enablers can therefore be seen as mirror images of one another, i.e. a lack of trust can be seen as a barrier (Handfield et al. 2000) and trust can be seen as enabler (Arroyo-López et al. 2012). Therefore, the presentation below does not separate between barrier and enablers but present them as e.g. ‘trust/lack of trust’. Below is a summary and description of a selection of barriers and enablers of supplier development as presented in the extant literature. They include but are clearly not limited to the following:
2.3.1 Trust—Or the lack thereof

Trust can be seen as a cornerstone of any kind of relationship between a buyer and supplier and is known to reduce the perception of risk associated with opportunistic behavior on the part of the other actor (Zaheer et al., 1998). It helps to lower transaction costs and is a critical element required to achieve benefits from collaborative supplier relationships. Trust promotes commitment in exchanges between partners, i.e. better communication, information and knowledge sharing, and thus improves supplier development (Handfield et al., 2000; Hernández-Espallardo et al., 2010; Nagati and Rebolledo, 2013). A climate of trust will ensure the continuity of long-term relationships and the appropriation of a portion of the productivity gains derived from learning new capabilities (Li et al., 2007; Sako, 2004). Trust in a relationship exchange can be on different levels, e.g. inter-organizational—the extent of trust placed in the other organization, or interpersonal—the extent of an individual actor’s trust in the counterpart in the other firm (Zaheer et al., 1998). Without trust, suppliers may be reluctant to share information on costs and processes; the need to release sensitive and confidential information may compound this hesitation, making lack of trust a major barrier to supplier development (Handfield et al., 2000; Hartley and Choi, 1996). Trust in a buyer-supplier relationship is defined as the level of confidence expressed by both partners during business transactions (Li et al. 2007, Prahinski and Benton 2004). Yawar and Seuring (2015) perceive trust and commitment as a driving force behind the adoption of supplier development and indicate that that buying firms indulge in direct supplier development once antecedents like trust are established.

2.3.2 Buyer’s top management commitment and support—Or the lack thereof

The need for supplier development must first be recognized and accepted by the top managers of the buying firm in order to improve the firm's competitive position (Hahn et al., 1990; Routroy and Pradhan, 2013). Purchasing management needs the encouragement and support of top management to expend their resources on improving suppliers’ operations. This demonstrates that supplier development is a specific function that pervades the entire organization, rather than the responsibility of a few isolated individuals or just the purchasing department. In this regard, top managers should have a better understanding of supplier-development programs (Smeltzer, 1997) and must focus on their supplier-development program’s implementation efforts (Prahinski and Benton, 2004) so the buying firm’s commitment can be credible to the supplier. Buyer credibility (Lascelles and Dale, 1990) is important as the suppliers need to be convinced that the buyer is serious about quality improvement, and it should be demonstrated by the buyer’s behaviors and attitudes. Without top management support, the buying firm may not be
able to allocate ample resources in supplier development (Humphreys et al., 2011; Handfield et al. 2000). Otherwise, the supplier’s commitment may be hindered, and the supplier’s top management’s approval for effective cooperation might be lost (Handfield et al., 2000). Achieving competitive benefits that can be derived from effective supplier development will then be in danger (Krause, 1999). Without strong top-management commitment and support, supplier development could be ineffective (Li et al, 2012). Buyer’s commitment does not only regard top management, but also lower level staff, such as purchasers.

2.3.3 Buyer’s purchaser commitment—Or the lack thereof

Supplier-development outcomes can be hindered due to lack of purchaser engagement in proactive and strategic approaches to supplier development. Some purchasers may fail to see the value of investing in suppliers, believing that supplier switching is easier than the development of suppliers over time. The capability of the purchaser to select the right supplier-development initiatives, and then participate in or lead them, may also be a barrier to supplier development (Dunn and Young, 2004). Poor purchasing and supply management practices and failure to respond to supplier requests for information or feedback about specification requirements are examples of practices through which buyer credibility can be undermined (Lascelle and Dale, 1990). Krause (1999) refers to this as an attitudinal factor, related to the view the buying firm holds towards its suppliers.

2.3.4 Long-term perspective —Or the lack thereof

Handfield et al. (2000) propose that the buyer’s long-term perspective is an important enabler for supplier development and e.g. long-term contracts can serve as a medium to express the buyer’s long-term perspective and strategic goals. The more extensive a relationship is, the more willing the buyer is to accept the short-term costs of supplier development in order to reap long-term benefits (Krause, 1999), and a long-term relationship may yield more certainty for buying firms in regard to suppliers’ performance. Routroy and Pradhan (2013) find the long-term strategic goal to be the most significant enabler of successful supplier-development implementation. According to them, the long-term strategic goals indicates a reciprocal recognition of the other actor’s effort for enhancing supplier capability, and it is important that there is no ambiguity regarding long-term strategic goals between buyer and supplier—without clear long-term strategic goals, the supplier may be unwilling to make changes to its operation in order to accommodate the desires of one specific buyer (Lascelles and Dale, 1990). The clarity of long-term strategic goals determines the effectiveness of supplier development. Contrary to the above, Humphreys et al. (2011) and Krause and Ellram (1997b) did not find support for this as an enabler in their study.
2.3.5 Supplier’s commitment—Or the lack thereof

Returning to the prologue of this thesis, the following quote “To agree to participate in supplier development, you have to eat your pride” (Hartley and Choi, 1996: 38) shows the potential difficulty for suppliers’ top management to accept other ways of doing things, and it may affect the possibility of implementing a successful supplier development. The suppliers’ lack of commitment to participate in the supplier-development effort is hence a barrier to supplier development (Handfield et al., 2000). The supplier may experience a lack of freedom that reduces enthusiasm to tie itself to the buying firm and consequently does not follow the supplier-development program to the full extent (Galt and Dale, 1991). The buyer’s team must therefore clearly outline potential rewards for the supplier or take the risk that the supplier’s management will not be fully committed to the effort (Handfield et al., 2000). Supplier commitment or lack thereof can be seen as created by buyer firm power, and/or customer attractiveness, which is discussed next.

2.3.6 Buyer firm power—Or the lack thereof

The lack of buying firm power is proposed to affect supplier commitment and constitute a serious reason why suppliers are reluctant to engage in supplier development (Krause and Ellram 1997a). Cox et al. (2004) state that buyers can achieve improved supplier performance in situations of buyer dominance. Power dependence (Krause et al., 1999) and purchasing power (Lascelles and Dale, 1990) are recognized to influence supplier development (Mortensen and Arlbjørn, 2012). Power relations within a relationship can be altered, and the weaker supply chain actor can change the power relation (Habib et al., 2015) through different strategies, thereby reducing the power imbalance by increasing the importance of its resources for the stronger actor, i.e. moving closer to the stronger actor or by moving away from the stronger actor as by trying to decrease the importance of the stronger actor’s resources for itself. Mortensen and Arlbjørn (2012) propose alternative ways to influence supplier behavior rather than using power or threats of the withdrawal of business. Their proposed means of influence is through customer attractiveness. Customer attractiveness can be seen as a creator of motivation, commitment and trust (see separate discussion below).

2.3.7 Customer attractiveness—Or the lack thereof

Customer attractiveness is said to affect the supplier’s commitment, and in order for supplier development to be successful, the supplier’s motivation or commitment to the effort is necessary (Ellegaard and Ritter, 2006; Mortensen and Arlbjørn, 2012). The supplier will be motivated to develop itself towards the most valuable and attractive buyers in relation to their own strategic agenda, i.e. based on perceived strategic fit between the actors. Buying firms must hence look at their own attractiveness and how they design their
supplier-development programs in order to remain competitive (Mortensen and Arlbjørn, 2012). The most capable buyer in terms of understanding and integrating the supplier’s perspective into the supplier-development effort will have the best chance of influencing and motivating the supplier through the development, increasing the value potential of the supplier-development effort (Ellegaard and Ritter, 2006). Customer attractiveness becomes more important when suppliers are considered strategic or when suppliers have many alternatives (Mortensen and Arlbjørn, 2012). Preferred customer status is reached when a buyer is sufficiently attractive to reach a special status in the supplier’s eyes and receive preferential allocation of resources and time by the supplier; preferred customer status is seen as a key antecedent to the supplier’s participation in supplier development (Ellegaard and Ritter, 2006; Nagati and Rebolledo, 2013).

2.3.8 Communication, feedback and information sharing—Or the lack thereof

Communication and feedback in the interface between the buyer and the supplier is a critical factor for the success of supplier development (Krause et al. 1999; Krause and Ellram, 1997a). Poor communication and feedback act as a barrier that affects supplier development and hinders supplier performance improvement (Handfield et al. 2000; Lascelles and Dale, 1990). Misunderstandings can easily occur, and it is necessary to spend considerable time communicating (e.g. requirements) with suppliers and showing them what is needed (Handfield et al. 2000). Lascelles and Dale (1990) point out that the supplier must thoroughly understand the function of each part and discuss the details, particularly with regards to the manufacturability of the items before requirements are finalized.

According to Mohr and Nevin (1990), there are important aspects of the communication process: content, the medium, and feedback. Content refers to the message that is transmitted and related to the type of information exchanged and the type of influence strategy embedded in the exchange. Influence strategies are different means of communication available to a firm’s staff in their attempts to influence other actors in the supply chain. Influence strategies can be seen as expressions of power (Ghijsen et al., 2010); however, they can be differentiated by indirect (information exchange and recommendations) and direct (requests, promises, threats, and legalistic pleas) influence strategies. The message is concrete and has properties of frequency and/or duration. Routroy and Pradhan (2013) stress the need for effective buyer/supplier communication through relevant and detailed information sharing on a real-time basis. Hernández-Espallardo et al. (2010) focus the need for the buyer to share information e.g. in collaborative product development. The need for information sharing from the supplier is
emphasized by e.g. Handfield et al., 2000 and Nagati and Rebolledo, 2013. As mentioned earlier, trust or lack of trust between the actors may influence the willingness to share information (Handfield et al., 2000; Hartley and Choi, 1996), i.e. poor communication in terms of content may be a conscious decision based on lack of trust.

The communication medium refers to the method used to transmit information. Media can be traditional communication methods or advanced communication methods (Carr and Kaynak, 2007) and can be classified by their ‘medium richness and formality’ where richness relates to how many cues there are for interpreting the communication. Face-to-face is considered the richest medium and electronic data transfer the least rich medium. In supplier development, in order to be effective, communication needs to be face-to-face (Handfield et al., 2000), two-way and multifunctional (Krause and Ellram, 1997a; Lascelles and Dale, 1990; Galt and Dale, 1991). Dunn and Young (2004) instead describe the need for a single line of reporting and communication in order to minimize the number of contacts. For decision making and information dissemination internally, specific individuals must be identified as key representatives for all supplier-development implementation issues. Formality can be seen as to what degree the communication is structured through clear rules and fixed procedures. Daugherty et al. (2006) explain that a high degree of formalization means that working relationships are influenced by formal rules and standardized policies and operating procedures over time. The formalization sets expectations of what should be done and establishes standard practices.

Feedback refers to two-way communication between two firms (Mohr and Sohi, 1995) and may regard buying-firm executives listening to their suppliers’ suggestions for performance improvement and clarifying the buying firm’s objectives, evaluation procedures and evaluation results. This feedback enhances the supplier’s perceptions of the buying firm’s cooperation and commitment to the supplier (Prahinski and Benton, 2004). Lascelles and Dale (1990) found that buyer representatives in their study often discouraged feedback from suppliers as it was ad hoc and then ignored or not sought.

### 2.4 Situation factors affecting the supplier development and related barriers and enablers

According to Busse et al. (2016) it is evident that the sourcing context, in terms of e.g. sourcing geography, matters for the experienced or perceived barriers in a supplier-development situation. Sourcing context and other factors affecting supplier development and related barriers and enablers are discussed in the supplier-development literature. Any one supplier-
development effort takes place in a specific context which may or may not affect the supplier-development effort and the perceived barriers and enablers. Sourcing geography, which refers to the local, regional or global sourcing (see e.g. Busse et al., 2016), as well as the industry (see e.g. Wagner, 2006), type of firm (see e.g. Krause and Scanell, 2002), and firm size (see e.g. Sancha et al., 2015) are situation factors proposed to influence supplier development and related barriers and enablers.

### 2.4.1 Sourcing geography

Compelled by substantial labor cost advantages, many firms in developed economies have outsourced and offshored products, components, and functions over the last few decades (ILO, 2015). More recently, evidence suggests that firms have started to reverse previous outsourcing and offshoring strategies and an increasing trend to re-shore manufacturing activities previously off-shored (Boston consulting group, 2013; Ellram, 2013; ILO, 2015; Tate et al., 2014) can be seen. This makes the local and/or regional sourcing context equally relevant for study as the global-sourcing context. According to Busse et al. (2016) context matters, and the local and global sourcing context are assumed to give rise to different types of barriers. In their study, they identify barriers related to socio-economic differences, spatial and linguistic distance, and cultural differences which are tied specifically to the global-sourcing context. Sancha et al. (2015) also share the view that sourcing context matters and relates this to e.g. the approachability of the supplier. In supplier-development research, Routroy and Pradhan (2013) concluded that proximity to supplier base is an important factor to consider as it affects the procurement lead time and reliability and that it may affect the psychological pressure on suppliers for maintaining the quality standards of the components/parts/services. This indicates that the sourcing context, defined in terms of global vs. local sourcing, is important and may affect the supplier development itself, as well as the related barriers and enablers.

### 2.4.2 Industry

Wagner (2006) proposes that certain assembly industries, including automotive and machinery, exhibit above-average supplier development through human as well as capital support. Many studies of supplier development have been performed in the automotive industry (see e.g. Arroyo-López et al., 2012; Marksberry, 2012; Ghijsen et al., 2010; Prahinski and Benton, 2004; Sako, 2004; Kotabe et al., 2003; Hartley and Choi, 1996). The automotive industry and heavy vehicles industry show many similarities— highly technical products, internal capabilities for product development and construction—and some differences: length of production series, degree of automation, etc. (Bard et al., 2010), which is lower in the heavy vehicles industry. Supplier power in the heavy vehicles and machinery
industry is seen as moderate: lowest in raw materials and higher where value-added inputs are concerned as the Original Equipment Manufacturer (OEM) has the possibility of manufacturing those items in house to leverage against supplier power (Machinery in Europe, 2014; Medium and heavy trucks in Europe, 2014).

Wagner (2006) further states that suppliers in process industries, e.g. textiles and clothing, are developed below average with respect to both human and capital support dimensions and that many firms within these industries do not consider supplier development an important capability and rather place emphasis on arm’s-length supplier relationships, competitive bidding, and spot market transactions. The textiles industry tends to be dominated by large and powerful retailers, whilst the majority of the textiles manufacturing companies are small and medium sized with a limited amount of power (Bruce et al., 2004). The supply chains in the textiles industry are often complex and relatively long with a number of supply chain actors involved. Problems such as long transportation distances, long lead times, short product life cycles, high product variety, unpredictable demand (Bruce et al., 2004; Unahabhokha et al., 2007; Kwok and Wu, 2009) and low profit margins are common in the textiles industry (Bruce et al., 2004). Kwok and Wu (2009) further emphasize that the textiles industry is less developed in terms of logistics. In Wagner’s study, retail chains were excluded (Wagner, 2006).

2.4.3 Business type

Krause and Scanell (2002) noted a difference between OEMs (original equipment manufacturers) and service firms (including e.g. retail trade, wholesale trade and transportation providers) and found that OEMs tend to use incentives (potential for more business) and direct involvement with the supplier to a greater extent than service firms who tend to rely on the competitive pressure of market forces to drive supplier improvement. In studies among retail supply chain executives, performance management has been pointed out as one key issue for future competitiveness (Randall et al., 2011).

2.4.4 Firm size

Firm size is a traditional control variable in operations and supply chain management research (Sancha et al., 2015), and larger firms tend to have more resources to put into different supplier-development efforts (Krause and Ellram, 1997b). Smaller firms might lack the processes and structures to identify performance gaps and can be even more reluctant to invest the financial and human resources into supplier-development efforts (Wagner, 2006).
2.5 Summarizing and synthesizing the theoretical frame of reference

The definitions of supplier development are based on research primarily focusing on the perspective of the buyer. From the supplier’s point of view, supplier development can be perceived on different levels of abstraction. First on the level of the individual supplier-development practice, second on the level of the supplier-development program, and finally on the level of the experienced total of supplier development.

The buyer’s supplier-development efforts can be seen as e.g. individual supplier-development practices. The supplier-development practice is an activity that takes place within a specific buyer/supplier relationship with the aim to upgrade the supplier’s performance and or capabilities. Figure 2 below depicts how a supplier-development practice (SDP) takes place within a buyer/supplier relationship (represented by the dashed oval). The supplier-development practices can be direct and resource demanding (e.g. training of supplier staff) or indirect and less resource demanding (e.g. measuring of supplier performance).

Figure 2. A supplier-development practice

The supplier-development effort can also be seen as the more or less coordinated effort combining different supplier-development practices referred to as the supplier-development program. A visualization of how the supplier-development program between a buyer and supplier can be perceived is presented in Figure 3 below where the SPD refers to the different supplier-development practices, the right arrow symbolizing the systematic supplier-development effort promoted by the buyer, and the dotted oval again representing the buyer/supplier relationship.
The aim of the supplier-development effort, whether a specific practice or the supplier-development program, is to upgrade supplier performance and/or capability.

Supplier development takes place within a given buyer/supplier relationship; however, according to the network approach, it cannot be disregarded that anything an actor does may influence not only the actual relationship where this action takes place but also the actor’s relationships with other actors. Hence, what one buyer does in terms of supplier development will inevitably influence the supplier’s ability to respond to the supplier development of other buyers, positively or negatively. This and other types of interrelatedness exist within the buyer/supplier networks. From the supplier’s point of view, the supplier development they experience may not be only specific practices or a specific program, but their view of supplier development may be that of the totality of supplier development they are subjected to by different buyers. See Figure 4 below where the supplier development (practices and programs) is viewed from the supplier’s perspective. The ‘point of view’ is visualized by the ‘supplier eye’ and field of vision through the dotted lines.

Looking at supplier development from this angle opens up a different view of what supplier development is.
To be effective supplier, development efforts need to be carried out over time. Different barriers and enablers affect the outcome of the supplier-development effort, and they may be of different type: emerging in the context within the buyer/supplier relationship or within the separate actors, they can also be classified as e.g. organizational, technical or cognitive; hence they may present themselves in different places, and be of different nature.

Barriers and enablers in supplier development are summarized in Table 3 below. The table can be viewed as structured from ‘more abstract to more concrete’. Authors writing about the concept in terms of a barrier (e.g. ‘lack of’) are marked with an asterisk (*); others write as if the factor has a positive influence on the adaptation of supplier-development practices/programs or as positively influencing the supplier-development outcome.

<table>
<thead>
<tr>
<th>Barriers and Enablers in extant literature</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>Handfield et al. (2000)*; Humphreys et al. (2011); Nagati and Rebollo (2013)</td>
</tr>
<tr>
<td>Buyer’s top management commitment and support</td>
<td>Handfield et al. (2000)*; Humphreys et al. (2011); Krause (1999); Krause and Ellram (1997a); Lascelles and Dale (1990); Li et al. (2012); Routroy and Pradhan (2013)</td>
</tr>
<tr>
<td>Buyer’s purchaser commitment</td>
<td>Dunn and Young (2004)*</td>
</tr>
<tr>
<td>Long term perspective</td>
<td>Handfield et al. (2000); Krause (1999); Lascelles and Dale (1990); Routroy and Pradhan (2013)</td>
</tr>
<tr>
<td>Supplier’s commitment</td>
<td>Galt and Dale (1991); Handfield et al. (2000)*; Humphreys et al. (2011); Krause (1999)</td>
</tr>
<tr>
<td>Buyer firm power</td>
<td>Cox et al. (2004); Krause and Ellram (1997a); Krause et al. (1999); Lascelles and Dale (1990)*</td>
</tr>
<tr>
<td>Customer attractiveness</td>
<td>Ellegaard and Ritter (2006); Mortensen and Arlbjørn (2012); Nagati and Rebollo (2013)</td>
</tr>
<tr>
<td>Communication, feedback and information sharing</td>
<td>Ghijsen et al. (2010); Humphreys et al. (2011); Krause et al. (1999); Krause and Ellram (1997a; b); Lascelles and Dale (1990)*; Prahinski and Benton (2004); Routroy and Pradhan (2013)</td>
</tr>
</tbody>
</table>

Table 3. Barriers and enablers in supplier development

Different factors, such as sourcing geography, as well as industry, type of firm and firm size are proposed to influence supplier development and the related barriers and enablers.

In this research, the choice to investigate enablers and barriers related to an individual supplier-development practice, to the supplier-development program and to the total supplier development a supplier may experience (see Figures 2, 3 and 4) has been made. The next chapter gives insights into how those different abstraction levels of supplier development came to be in focus.
3. Research Methodology

The first section (3.1) of this chapter describes the research process as I see it with an introduction to the five studies (literature reviews and empirical data collection) that form the foundation for this research. It is followed by the overall research design (3.2) and then (3.3) a more detailed discussion of the literature reviews and sources of empirical data used in this thesis. The research-design discussion outlines the methods used to collect and analyze the data and to answer the research questions. Section 3.4 details how the different pieces of this research are combined to create this licentiate thesis. Section 3.5 presents how the analysis was performed. Considerations for research quality (3.6) are presented. In section 3.7 the researcher’s contribution to the papers and thesis is presented.

3.1 The research process

This section gives an overview of the different studies performed in order to compile the research and results into this licentiate thesis. An overall chronological representation of the research process is presented in Figure 5 below. Five studies have been conducted: two literature reviews (studies one and two) and three empirical studies (studies three, four and five).
The literature review on supplier development (study one) has been ongoing throughout the whole research and writing process; however less intensively during study two and three (indicated by the dashed lines around study one during study two and three above). Alongside the studies and up to the current date, the writing of papers and licentiate thesis also took place. The acceptance of my Research Proposal is marked with the star shape in the figure, and the presentation of the licentiate thesis with the scroll. What follows now is my story of how the research came to be what it became.

3.1.1 Study one—Getting acquainted with the field.

The first study of this research was initiated in 2012 as a literature review on supplier development. Search terms such as supplier development, supplier-development practices, and supplier-development programs in isolation and in combination with the search terms barriers, best practices, success factors, and challenges were used in order to get acquainted with the field and understand the complexities of the area under investigation. A further elaboration on search terms and sources is presented when the research design is presented (see heading 3.3 for more information). The findings of this initial literature review revealed a few things that came to affect the research process and content: 1) a large portion of supplier-development research focuses on the buyer in buyer-supplier relationships (see e.g. Terpend et al. (2008) and Ramsay et al. (2013)) i.e. little focus on the supplier or on the dyad/relationship as such, and 2) performance management, the follow up of supplier performance and connected actions is an important practice in the supplier development performed by the buyers (see e.g. Krause and Ellram, 1997b; Krause et al., 1998; Wagner, 2006). Inspired by this fact and by the research environment where I am located where researchers are focusing performance management, synergies were identified, and the opportunity for joint research was taken. Study one evolved into study two, a literature review on performance management.
Throughout the first step of the research process, study one has been ongoing continuously as the research has progressed. My view of what supplier development is and ought to be has developed throughout the research process based on the literature reviews and empirical findings. A general need to refresh my knowledge has been present throughout, and as the process evolved based on the findings in a given study, complementary readings have been required.

3.1.2 Study two—Getting into performance management details

Study two is a more focused literature review on performance management with a specific focus on logistics performance management. The initial literature review was important in terms of increasing my understanding of the field and the connection between performance management and supplier development. Krause et al. (1998: 40) was an important influence at this point in time with their definition of supplier development explicitly calling for buyers to “identify, measure and improve” supplier performance. Study two was guided by my co-author and based on search terms such as performance management, logistics performance management, and logistics indicators. Barriers and best practices were emphasized. As the area of study started to reveal itself, the planning of study three (data collection) directed me to combine the above search terms with the intended context terms such as industry and business types, see a further elaboration of this as the research design of the case studies is discussed (heading 3.3.2).

During study two, the overall structure of this research was laid out, and the focus towards supplier-development practices (performance management specifically) and supplier-development programs was decided upon. The overall purpose of investigating supplier development from the supplier’s point of view was also agreed upon. The inclusion of the supplier’s point of view can be accomplished either by studying the supplier or the dual perspectives of the dyad.

3.1.3 Study three—A first touch base with practice

Study three is a multiple case study of two textiles supply chains focusing on the performance management of supplier-development practice logistics. The motives for researching the textiles industry is found under research design (heading 3.3.2). The purpose was to explore the practices with logistics performance management and investigate barriers and best practices in this area. The case study design was strongly influenced by Yin 2009; however, in terms of writing Yin 2014 is the primary reference. Yin’s (2009) influence can be seen in that the case study is a multiple case study—though based on only two cases, that multiple data sources are used and that the analysis is a cross-case, pattern-matching analysis. The study is dyadic, in the sense that it
considers both buyer and supplier points of view. The textile supply chains are represented by two retail chains and one of their respective suppliers. The suppliers deliver customer specific products for re-sale in the retail chain. The study focuses the supplier-development practice performance management within a buyer/supplier relationship.

Following study three, the Research Proposal was presented and accepted by the tutoring and examining committee.

3.1.4 Study four—Supplier experiences and perceptions of supplier-development programs

Study four is a single case study of barriers and enablers related to one OEM’s supplier-development program. The study focuses on supplier experiences and views on supplier development. The study aims at understanding the suppliers’ experience of supplier development and the barriers to and enablers of supplier development as perceived by the suppliers. The suppliers deliver customer specific components and sub-assemblies for the OEMs final product. The case study was influenced by e.g. Merriam (2009) and Lee et al. (2007), and a single case study was chosen as it allows for a deeper understanding of the conditions and context of a contemporary phenomenon (Merriam, 2009). The single case study has the capacity to draw from different data sources, and simultaneously analyze on several levels in a single setting. It gives potential for a rich understanding of organizational phenomena (Lee et al., 2007). A further elaboration of the rationales of the case study is presented under research design (heading 3.3.2).

The study focused the barriers and enablers of a supplier-development program, and the supplier-development program of one specific buyer was under scrutiny during the interviews with supplier representatives.

Throughout the interviews, the representatives from one of the interviewed suppliers (supplier E) kept coming back to the complexities of ‘being developed’ by multiple buyers and multiple individuals within the buying organizations simultaneously. This finding directed me to investigate further, not only the practices and programs of a specific buyer but to look further and also include the ‘totality’ of supplier development a supplier may be subjected to. Llewellyn and Northcott (2007) inspired me to go further with what could be referred to as the ‘singular view’ of complexities the supplier E representatives experienced and continually returned to during their interviews. With (interpreted) support from Dubois and Araujo (2004), this led me to initiate study five to investigate supplier development from a broader perspective, as it presented an opportunity to look into supplier experiences of supplier development more generally. The ‘experienced total’ of supplier
development based on the experiences of the supplier was introduced and works as the foundation of study five.

3.1.5 Study five—Going wider and deeper into identified barriers in the ‘experienced total’ of supplier development

The final study performed in order to complete this thesis work is a focus group study of multiple suppliers in different industries supplying components, sub-assemblies or sub systems to OEMs in different industries. The focus group as a method was chosen because of its advantages for capturing the dynamics of viewpoints from several participants in the groups (Kvale and Brinkman, 2009). The idea was to collect a multitude of perspectives through informants from different industries and companies of various sizes, and it was initiated in order to further develop, strengthen or challenge some of the findings from study four regarding suppliers’ perspectives on supplier development and the related barriers to supplier development. During this study, additional literature was consulted to give plausible explanations for the results. The study focuses on the ‘experienced total’ of supplier development from the supplier’s point of view. The experienced supplier development is more than what is taking place within the supplier-development program of one specific buyer. My own increased understanding gained throughout the research process directed me to try to answer the research questions connected to a practice, a specific supplier-development program and related to the multitude of supplier development the supplier may be subjected to. Study five was used as the final key to wrap this research together in the sense that the research then has investigated supplier development based on the experiences and perceptions of the supplier focusing on practices, programs and the experienced total of supplier development.

3.2 The overall research design

Various research designs can be considered when going into a research process. The research design refers to the execution of a research method and the analysis of the subsequent data (Bryman and Bell, 2011).

3.2.1 The overall research design as a result of the purpose

As the research design is a plan for collecting and analyzing the evidence needed to fulfil a certain research objective or answer a specific research question, the research objective as well as the research question should guide the choice of research design. Looking to the objective or purpose of the research, Ellram (1996) influenced by Yin state that depending on whether the objective is exploration, description, explanation or prediction, the research
could be designed in different ways. The research question will further narrow down the suitable research designs.

As the overall purpose of this research focuses on the suppliers’ experiences and perceptions of supplier development and related barriers and enablers, the research has another focus than the bulk of extant research, i.e. not too much is written about supplier perceptions of supplier development. At the onset of the research process, I therefore perceived the purpose as primarily exploratory (Ellram, 1996; Yin, 2014) in nature; however, the purpose also holds elements of description and explanation. Based on the (primarily) exploratory nature of the research, the case study design was perceived as a natural choice (Yin, 2014) for the collection and analysis of empirical data. According to Yin (2014), research questions addressing e.g. how or why renders case studies or experiments suitable, whereas for research questions addressing how much or how many e.g. surveys are more fruitful. Going back to Ellram (1996), she states that any of the above-mentioned objectives are suitable for qualitative as well as quantitative research. She further states that with the right research question (how, why, who, what and where), case studies are potentially effective in fulfilling any of those research objectives. In other words, it is important to note that case studies are not only fit for exploratory research, but also when explanation, description or prediction is sought for. A deeper discussion on this follows when the respective study is presented in detail (see headings 3.3.2 and 3.3.3).

### 3.2.2 The research approach

The relationship between the empirical and theoretical world is often expressed in terms of induction and deduction; this is another parameter with implications for the research design. Inductive research concludes general laws based on individual cases, and deductive research is concerned with developing propositions from theory in order to test them in the real world (Dubois and Gadde, 2002). As research seldom follows a straight-forward and structured process (Seuring, 2008), abduction, where the researcher is allowed to travel back and forth between the empirical and theoretical worlds, is often the actual process of knowledge creation (Dubois and Gadde, 2002). This research has had elements of all three research approaches, but an interest in the ‘real world’ has led me to allow the empirical observations to direct the research. The initiation of the literature reviews in the different topic areas took place prior to the planning and execution of the empirical data collection, thereby elements of deduction can be seen. However, the extant literature has to different degrees guided the data collection and also the analysis of the data. The figure below (Figure 6) shows my understanding of how I moved between theory and data in the different studies.
Study three is clearly based on the literature review on performance management (study two). A semi-structured interview protocol was developed based on the literature review and collection of empirical data, and the analysis followed in a rather straightforward manner. In terms of research approach, I would refer to this as being primarily deductive. Study four, primarily the data collection phase has inductive features as it was based on the notion of enablers and barriers in supplier development, but the questions asked were open in nature, not steered by the pre-conceived understanding of those barriers and enablers from the buyer’s point of view. Findings from study four were used as a starting point for study five, and I toggled back and forth between the data and the literature to find reasonable explanations as to why I encountered what I encountered in my empirical data. I would refer to this process as primarily abductive. New features of the study object have revealed themselves, calling for attention and creating a new focus in the research.

What now follows is a more in-depth discussion of the research design and methods used for the respective studies.

3.3 The research design for the respective studies

3.3.1 The literature reviews (study one and two)

Literature reviews are important components of the research process as they provide the basis for justifying of the research question(s) (Bryman and Bell, 2011) and a basis for developing an argument about the significance of the research. The literature review is also a selection process as it involves the judgement of what to include and what to exclude from what has been written about the chosen subject (Bryman and Bell, 2011) but also to e.g. identify the methodologies and research techniques in use within the subject area (Randolph, 2009). Literature reviews come in different shapes and forms with two primary types are presented in literature, the systematic and the narrative literature reviews (Bryman and Bell, 2011). For this research two literature reviews have been performed, where study one has been rather narrative in
nature, and study two has had more features of the systematic literature review.

**Study one** was initiated as a way for me to get an overall understanding of the research area and to get a feeling for the type of research that is performed within the subject area. Primarily the search tool ‘One Search’ from where e.g. EBSCO, Emerald, Google Scholar, Science Direct, Swe Pub, Web of Science, etc. can be reached was used. One Search often generates many hits, and by at times searching directly in the specific databases a more limited selection of articles can be found—this helps the prioritization. The primary focus was on peer-reviewed articles; though conference papers, books and papers from non-peer reviewed journals, such as *Harvard Business Review*, were also identified and read when found appropriate. Primarily subject-related search terms were used, though searches for author names were also used in order to go deeper into what appeared to be the authorities in the different subject areas.

Though search terms were specified initially (supplier development, supplier-development programs in isolation and in combination with the search terms barriers, success factors, enablers and challenges) the review was built on the snowball approach where relevant papers pointed towards (either through their references or through ‘this paper has been cited by’) other papers, which were assessed for their relevance. As presented earlier, this initial literature review led me to direct my focus towards the suppliers in the buyer/supplier relationship (based on e.g. Mortensen and Arlbjørn, 2012; Terpend *et al.* 2008). This led me to take a deeper look into performance management as a means of supplier development with reference to e.g. Krause *et al.* (1998) presenting that supplier development takes place through the ‘identification and measurement’ of supplier performance and that e.g. Krause and Ellram (1997b) and Wagner (2006) present formal evaluation and feedback as an important supplier-development practice. Search terms like supplier perspective and supplier perception were added to the list of terms.

The literature review revealed that primarily questionnaire survey methods have been used, indicating a gap of case-study based research on supplier development (see e.g. Mortensen and Arlbjørn, 2012; Wagner, 2006 and Wouters *et al.* 2007). Hence, the contemporary supplier-development research does not give much detail in the descriptions of supplier development and the related barriers and enablers. Together with the exploratory purpose, this was the basic grounds for performing case studies.
The literature review, study one, has continued throughout the research process. Additional search terms have been added as I have identified or become aware of other ways of describing the same or similar phenomenon. Examples are terms such as drivers, pitfalls, obstacles, hinders, supplier improvement efforts and vendor assessments. In order to better understand supplier development and the related barriers and enablers, network literature has also been included as an extension of this literature review. The overall aim of this study was to function as an introduction to the topic area and to function as the frame of reference for the papers two and three and in the main thesis.

**Study two** the more focused or narrow literature review of performance management was carried out in collaboration with my co-author where she made the majority of the ground work of the literature search based on keywords like performance management, logistics performance management, performance management process and logistics indicators. Added to those were search terms focused on a given industry (textiles) and business type (retail) to locate specifics related to the topic under investigation. The overall aim of this literature review was to provide a theoretical underpinning for the upcoming case study (study three). The literature review was performed using the same search tool and principles for selection as presented for study one.

3.3.2 The case studies (studies three and four)

Papakiriakopoulos and Pramatari (2010) perceive case studies to be a good consolidation tool between theory and practice, and Lee *et al.* (2007) say that they contribute to practice as well as theory. The studies are based on single or multiple cases with no more than two cases. Having few cases enables a deep and detailed study (Barratt *et al.*, 2011), allowing for deeper understanding of the conditions and context of the phenomenon (Merriam, 2009).

The geographical context (valid for both case studies)—was chosen primarily based on convenience (Bryman and Bell, 2011) and the possibility of interviewing representatives on site. In my research, I was also disposed to investigate barriers and enablers in the ‘local sourcing context’. The ‘buyers’ in studies three and four are Swedish by origin. The suppliers in study tree are European from southeast Europe, the suppliers in study four are Swedish or Sweden-based. This makes the sourcing local (study four) or regional (study three) in nature. European, instead of Swedish or Sweden-based textiles suppliers, were selected as the alternative is frankly not available. The local/regional context indicates that barriers may differ both in form and degree from those within a global sourcing context (Busse *et al.* 2016).
Study three is a multiple case study of two textiles supply chains with the focal point being the interface between the textiles manufacturer and the sourcing organizations of the retail chains. The overall aim of this study, in relation to this thesis, is to understand the barriers to the supplier-development practice ‘performance management’ and to understand if and how industry matters.

Case selection—The retail chains were selected based upon their similar business models, with design in-house and owned or franchised retail stores and for being two of the largest home textiles buyers in the Nordic countries. The suppliers hence manufacture customer-specific products for re-sale. Another business model, e.g. that of buying generic products off the shelf is expected to result in a different, perhaps less-involved performance management process. The suppliers were selected based on the fact that they produce and sell the same type of products and are located in the same country in southeast Europe. Those similarities between the buyers and suppliers respectively were sought as a way to keep as many business conditions constant between the cases (Yin, 2014). Suppliers are presented in below table (Table 4).

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Buyer’s share of supplier turnover</th>
<th>Number of items</th>
<th>Buyer/supplier relationship—number of years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier for the global chain</td>
<td>20 %</td>
<td>140</td>
<td>15 +</td>
</tr>
<tr>
<td>Supplier for the Nordic chain</td>
<td>20 %</td>
<td>150</td>
<td>15 +</td>
</tr>
</tbody>
</table>

Based on this, the sampling of cases could be perceived as a literal replication (Yin, 2014). However, it is important to note that although both retail chains are large Nordic buyers of textiles, what we refer to as the ‘Global retail chain’ is considerably larger than what we refer to as the ‘Nordic retail chain’. The Nordic retail chain has a turnover of less than 10 % of that of the global retail chain’s textiles turnover. Another factor differentiating the two retail chains is that whilst the Nordic retail chain has a clear focus on textiles, the global retail chain has other business areas and hence operates in industries other than the textiles industry, giving us a theoretical sampling (Yin, 2014). As the supply chains still have a lot in common, it offered the opportunity to conclude if and how context matters (see paper one for an elaboration on this), and, based on the differences in buyer size, if and how size matters (Wagner, 2006). This study is dyadic in the sense that it takes into consideration the buyer—as well as the supplier—points of view. The buyers were identified and contacted by the researchers and informed about the research aims. Based on criteria
identified by the researchers, the suppliers were selected and asked for their participation by the buyers.

Data collection—The primary source of data for this case study is interviews. Documents, e.g. measurement reports and measurement definitions have been used for details and clarifications. The interviews were semi-structured (Yin, 2014) based on an interview protocol found appended (appendix one). The interview guide focused the performance management process and related barriers and enablers. The semi-structured interviews provided an opportunity not only to secure coverage of the areas of interest in the investigation, but also provided an opportunity to ask further questions to responses that were considered significant. The interviews were in depth (Merriam, 2009), and lasted between one and two hours, giving a broad view of the researched phenomenon. Five different organizational units were targeted for interviews. The global retail chain has a central sourcing organization located in Sweden and one local sourcing organization located in the same country as the supplier. Interviews were performed with staff from both those sites. The interviews with representatives from the textiles retailers’ headquarters were done in personal and on site. The supplier interviews were done via phone and the interview with the global retail chain’s local purchasing organization was done via Skype. The interviews were performed individually by the two researchers: where I conducted the interviews related to the global supply chain and my fellow researcher to the Nordic supply chain.

Informants—For the global supply chain, multiple informants were needed to cover all aspects of the logistics performance management, but single representatives were regarded enough for the Nordic supply chain actors. In total 11 interviews were carried out—nine within the global supply chain and two within the Nordic supply chain. The selection of the informants was based on key informant logic (Bryman and Bell, 2011). For further specification of informants, see the appended paper one. The informants were asked to participate and were informed that their participation was by no means mandatory. This was specifically important for the informants of the suppliers as they had initially been asked by the respective buyers to participate in the study. The informants were granted anonymity, and despite the fact that this was not a requirement for any of the informants, the authors chose to anonymize the firms as well as the informants in the writing of the paper.

Analysis—The analysis is a cross-case, pattern-matching analysis inspired by Yin (2014). The analysis started with the creation of case descriptions and the creation of matrices where evidence was placed in the categories of this matrix. The matrix categories were created based on the Forslund and Jonsson (2007) framework for best practices and barriers in performance management.
Pattern matching was applied comparing the empirical data and theory in search for textile-specific best practices and enablers. The matrices for the different cases were then compared between the cases.

The textiles/retail context—the retail context was chosen based on the proposed performance management research lag (Wiese et al., 2012) and the perceived competitive edge that performance management can bring to retail chains (Randall et al., 2011), indicating a possibility for creating theoretical as well as practical value. The textiles industry is a reasonably unchartered territory in terms of supplier development and performance management research. The specific characteristics of the highly competitive, design-driven textiles industry with high demands on logistics performance (Dotti et al., 2010; Chan and Chan, 2010) and the fact that buyers in the textiles industry on average (Wagner, 2006) invest a low degree of resources in human as well as capital support to their suppliers created an interest to figure out if any industry specific practices were applied and/or if the textiles industry context would lead us to find more or different barriers than those previously identified by the extant research. Finally, I must admit that my own personal interest based on my occupational background within the ‘textiles retailing industry’ acted as a driving factor in this direction. My fellow researcher had ongoing research within the retail context, which again supported our collaboration.

Study four is a single case study of barriers to and enablers of one heavy vehicle OEM’s supplier-development program. Barriers and enablers are perceived by six of the suppliers subjected to this supplier-development program. The overall aim of this study in relation to this thesis was to understand the barriers to and enablers of the supplier-development program. Data collection was carried out together with a research colleague.

Case selection—The OEM, referred to as the buyer is one of the major players worldwide for heavy vehicle development and production based on turnover (Machinery in Europe, 2014; Medium and heavy trucks in Europe, 2014), individually in its segment as well as for the buyer group to which it belongs. The buyer group is a group of OEM’s in different branches of the heavy vehicles industry. This buyer’s supplier-development program was selected based on the buyer being an industry leader and being known as a buyer working with supplier development. Access is also a component that steered the selection. The identification and selection process is similar for this study as well as for study three; the buyer was identified and selected by the researchers and informed of the research aims. Suppliers were identified by the buyer, based on criteria set by the researcher. One identified supplier turned down the offer to participate in the research whereas the other six
The suppliers are Swedish components and sub-assembly manufacturers in different industries, comparably smaller than the buyer. The suppliers manufacture customer-specific components to be included in the buyer’s final product. The suppliers were selected based on similarities: they are all Swedish for the researchers’ convenience (convenience sampling, see e.g. Bryman and Bell, 2011), and they are also preferred suppliers to the buyer, which means they have a history of supplier development and a long relationship history with the buyer. The buyer’s supplier classification is from ‘preferred’ to ‘phase out’, with additional categories in between those two. Based on the above criteria, component and sub-assembly suppliers were identified for the case study keeping a lot of factors constant. Suppliers were also selected based on differences as supplier turnover was taken into consideration ranging from the smallest SEK 70 million to the largest SEK 400 million. The rationale behind including the firm size as selection criteria is twofold: the first reason is that supplier resources has been identified as a barrier to supplier development (see e.g. Handfield et al., 2000; Krause et al., 1999 and Talluri et al., 2010; Sancha et al. 2015) and that barriers may give rise to other barriers (Ülgen and Forslund, 2015). The second reason is that the main explanatory factor for the differences between the cases that we identified in study three (Ülgen and Forslund, 2015) was firm size and hence companies of different size were addressed in the research in order to get a broad view of barriers and enablers. Supplier data is presented in Table 5 below:

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Turnover</th>
<th>Buyer’s share of supplier turnover (total buyer group share of supplier turnover)</th>
<th>Buyer/supplier relationship—number of years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier A</td>
<td>SEK &lt; 200 million</td>
<td>20 % (40 %)</td>
<td>20 +</td>
</tr>
<tr>
<td>Supplier B</td>
<td>SEK &lt; 200 million</td>
<td>15 % (30 %)</td>
<td>20 +</td>
</tr>
<tr>
<td>Supplier C</td>
<td>SEK &gt; 300 million</td>
<td>20 % (30 %)</td>
<td>20 +</td>
</tr>
<tr>
<td>Supplier D</td>
<td>SEK &lt; 200 million</td>
<td>35 % (35 %)</td>
<td>15 +</td>
</tr>
<tr>
<td>Supplier E</td>
<td>SEK &gt; 300 million</td>
<td>4 % (20 %)</td>
<td>15 +</td>
</tr>
<tr>
<td>Supplier F</td>
<td>SEK &gt; 300 million</td>
<td>20 % (20 %)</td>
<td>20 +</td>
</tr>
</tbody>
</table>

Table 5. Case supplier characteristics, study four

Data collection—The primary source of data for this case study is interviews. Documents e.g. 8D reports3 and KPI-follow up reports have been used for details and clarifications. The interviews were in-depth (Merriam, 2009) and conversational (Yin, 2014) with open-ended questions used to facilitate

---

3 The 8 disciplines of problem solving (8D) is a methodology for problem solving through the identification of the root cause. It contains e.g. problem description, interim containment actions, root cause analysis, verification of corrective actions and preventive actions. Is commonly used in the automotive industry and has also spread to the heavy vehicles industry.
discussion and reflection. Each interview lasted approximately two hours. The interviews were not based on an interview protocol, but rather the informants were asked to elaborate on the supplier development they are subjected to and the related perceived or experienced barriers and enablers. Follow up questions were continually asked to clarify understanding. The interviews were recorded and transcribed. In total, interviews with 9 supplier representatives were carried out, focusing on the supplier development (program) of the specific buyer. Eight of those main interviews were conducted by both researchers involved in the study. My role was to do most of the interviewing, and my colleague was responsible for the note taking. Shorter follow up interviews were made for clarification, and an additional two interviews with buyer representatives were performed to understand the supplier-development context (one of those interviews was performed jointly, and the other one was done by myself).

Informants—Key informant logic (Bryman and Bell, 2011) based on the informant’s insights into and knowledge of the buyer’s supplier development was used in identifying the supplier representatives for interview. The result was a focus on sales and/or quality managers of the suppliers, as the staff with those functional responsibilities are the first line of contact for the buyer’s supplier-development staff as well as the ones primarily involved in the actual development work of the supplier’s. The informants were asked, not requested to partake in the research, and hence again given the opportunity to decline. Due to time constraints, the sales manager of one firm and the quality managers of two firms did not have the opportunity to take part in the research. Participation was not mandatory, neither on supplier nor informant level. The global supplier development manager and a supplier-development engineer of the buyer were interviewed—not in order to dive into the barriers to and enablers of supplier development but rather to gain insights into the supplier-development program of the buyer. Anonymity was offered to the informants, and one supplier informant gratefully accepted this offer. This means the companies and informants were interviewed without mentioning of firm names and locations. The informants are addressed by their functional responsibility.

In all but two interviews the focus on ‘the specific buyer’ and the ‘barriers to and enablers of supplier development related to this specific supplier-development program’ was kept, whereas during two interviews the supplier informants repeatedly ‘left the buyer’ to focus ‘the buyer group’ and ‘other buyers’ presenting the challenging complexity in the totality of the supplier-development efforts they are subjected to. Inspired by the emerging insights and opportunities (Dubois and Araujo, 2004), this led the research process to take a turn to investigate not only specific practices and programs but to also to include the barriers of the ‘experienced total’ of supplier development from
the supplier’s perspective. This notion of complexity was further investigated through focus group interviews based on ‘barriers of being developed by many’ in study five.

Analysis—The analysis of data started with the transcribing of the interviews, identifying information in the transcripts that had bearing on the research at hand, followed by the coding of the transcripts (Merriam, 2009). Descriptive codes based on the data were created in the first round of analysis. The analysis was done successively with one transcript following the other. The codes were then categorized, and a number of tentative categories or themes were created. The categories can be seen as ‘themes’ identifying different barriers to and enablers of supplier development. For the first few interviews, both researchers involved in the study were also involved in the categorization of coding into themes (the result can be found in an earlier version of paper two). The analysis of the remaining interviews (open coding as well as analytical coding (Merriam, 2009)) was my own work. The analysis can be said to have been inductive and comparative (Merriam, 2009). No a priori formulation of propositions was made (see e.g. Ketokivi and Choi, 2014). During the analysis process, extant literature was successively consulted. As the barriers and enablers unfolded, iteration between data and literature (see e.g. Ketokivi and Choi, 2014) took place. The labelling of barriers and enablers has been influenced by literature where support for such labels has been identified. The different suppliers are seen as embedded units of analysis (Yin, 2014).

The heavy vehicle industry context—As Wagner (2006) suggests that automotive and machinery industries exhibit above-average supplier development, the expectation was that the supplier development encountered within the heavy vehicles industry should be well developed and professional. The heavy vehicle context was chosen primarily based on similar characteristics to the often-studied automotive industry e.g. highly technical products, and internal capabilities for product development and construction, but also for the differences e.g. a short production series and lower degree of automation (Bard et al., 2010). Based on the similarities I expected to find well working and established supplier development and possibly few barriers.

3.3.3 The focus groups (study five)

Study five is a focus group study of suppliers to OEMs in different industries, where the heavy vehicle industry is represented but not the main industry. The overall idea of this study was to collect a multitude of perspectives through informants from different industries and companies of various sizes. The focus group as a method was chosen because of its advantages for capturing the dynamics of viewpoints from several participants in the groups (Kvale and
(Brinkman, 2009) where the participants can offer their own points of view and feed off the point of view of others through the discussion of pre-defined topics based on open-ended questions used to stimulate discussion and encourage interaction (Sutton and Arnold, 2013). Focus groups are particularly useful when access to data is limited and when unexplored or emerging phenomena are explored (Sutton and Arnold, 2013). The focus groups were performed in order to further develop, strengthen and/or challenge the findings from study four, but also to search for explanation of the findings. Three initial focus groups were performed for data collection. At a later stage a final focus group session was performed to present the results of the case study and the previous focus groups.

The geographical context—In study five, the buyers are not defined by their origin as the study has a broader view than that of a specific supplier development by a specific identified buyer. To my knowledge the suppliers are all Sweden-based and have Swedish as well as international buyers working with their development. The international buyers are primarily European, though North American buyers are also within the buyer networks of a minority of the supplying firms.

Focus group selection—Focus groups were conducted where the results from the ‘barriers of being developed by many’ was presented and discussed to further elaborate on those findings. An invitation to the focus groups was sent out through a south Swedish industrial network of manufacturing companies; thus, the selection criteria were based on geographical proximity and access. A wide range of SMEs were represented in the workshops. The companies do not have OEM status in their respective supply chains, making their business conditions similar to those of the heavy vehicle supplier from study four. The suppliers primarily manufacture customer-specific components or customer-specific final products similar to that of the case supplier. The buyers touched by the focus group study are considerably smaller than the ‘heavy vehicle buyer group’. Most are even smaller than the focused heavy vehicle industry buyer. In total 20 representatives joined the three focus groups (group 1: four attendees; group 2: seven attendees; and group 3: nine attendees). The size of the groups overall was satisfying, making it possible to interact and get everyone involved; however, in group one there was a bias towards one dominant informant. The fourth session involved supplier representatives from SMEs in different industries (20) and representatives from a heavy vehicles industry buyer (5). This session was used to present the results of the research and to get one final round of input on the results.

Informants—The persons attending the three workshops or focus groups were not selected—they attended the workshops based on interest and their
companies having the experience of ‘being developed’ by one or more of their respective buyers. In total twenty informants attended the focus groups; they are logistics and purchasing managers/purchasers (6), sales and customer development/sales managers (6), managing directors/owners/site managers (2), and quality/production/site managers (6), i.e. they were representing a wide group of job titles on primarily mid- to top management positions. The smallest companies were represented by their managing director or owner. This gave heterogeneous groups, which promotes receiving diverse views (Vyakarnam, 1995). In terms of supplier informants, the fourth session was, to a larger extent, attended by managing directors and owners. The buyer informants represent quality, logistics and planning functions.

Data collection—Each focus group interview took 90–110 minutes. The focus group interviews had pre-defined topics for discussion based on the previous findings. During the focus groups which were recorded, findings were presented, and discussion followed for each topic area. Three researchers were involved in the data collection. To ensure that the informants were correctly identified, notes were taken by one of the three researchers. Notes were also taken in order to have a record in case went wrong with the recording, which also happened approximately 60 minutes into focus group one. My role was to present findings and to open up for discussion and steer the group to stay within the subject area. As the skill of the moderator is important and literature suggests more than one moderator (Vyakarnam, 1995), I had the additional support of a moderator from another more senior researcher. His role was to make sure the discussion continued in areas where responses seemed significant, had I missed any of those. The questions addressed in the focus group were related to how the informants recognized the situation as the ‘case supplier’ or not and how they would describe similar or related barriers. They were also discussing why the findings are what they are, and if not relevant to them, giving their view of why this is the case. The fourth session turned out to be more of a presentation than a focus group. The findings were presented and feedback from buyer and supplier informants was received. No direct arguments against the findings were given. Plausible explanations as to why the supplier development takes the form it does in the case study were given by buyer representatives, and plausible explanations for the experienced barriers from the case and the earlier focus groups were given by buyer and supplier representatives.

Analysis—The analysis is based on the notes and transcripts of the recordings of the focus group interviews, reading for emergent themes (or meaningful segments) and then coding. Considering the qualitative nature of the data collected in focus groups, a considerable amount of subjective judgement is necessarily involved in its interpretation and analysis (Vyakarnam, 1995). All
statements from the groups cannot be taken at face value; however, statements
tend to be challenged if the other members of the group find them extreme or
not plausible. The analysis was made by myself; however, the other
researchers involved in the data collection read and commented on the
analysis at a later point. The fourth session has not affected the findings
presented in paper three as the paper was written and presented at a conference
prior to the fourth session. However, the input from this session is allowed
entry into the main thesis.

3.4 The puzzle of the licentiate thesis

The output of the presented studies consists of three papers and a main thesis.
The literature studies have fed into the literature reviews of the main thesis
and the papers alike. Study one, the overall supplier-development literature
review can be seen as the starting point or driving factor of the research
process but also what worked as the framework throughout the research. Study
one, thus ‘frames’ all the other studies in this research. Study one feeds into all
the papers: indirectly to paper one in that it created the interest in studying the
supplier-development practice performance management and directly into
papers two and three as part of their frames of reference. Study one is also the
foundation of the literature review in the main thesis. Study two is the primary
theoretical input for paper one.

How the empirical data from studies three, four and five feed into the papers
and empirical findings in the main thesis is visualized below (Figure 7).

Study three

Study four

Study five

Paper one

Paper two

Empirical findings (chpt 4)

Paper three

Figure 7. Links between empirical studies, empirical findings and papers

Study three gives the empirical input for paper one. Study four is the basis and
foundation of paper two. Study five and parts of study four (the ‘case for
complexities’) form the paper tree. It is therefore important to note that there is no single one-study paper logic for all the three papers. The findings of the papers are used to answer research question two regarding barriers and enablers in supplier development. Empirical data gathered in studies four and five focusing on the experienced supplier development is presented in the empirical findings in the main thesis (chapter 4). The empirical findings are used in order to answer research question one focusing on the experienced supplier development.

3.4.1 Specifics on the contribution of the papers in relation to the main thesis

The following section gives a short introduction to the papers and explains how the papers contribute to the main thesis. It gives specific information about the author’s understanding of the papers.

**Paper one—Logistics performance management in textiles supply chains: Best-practice and barriers**

The purpose of paper one in relation to this thesis is to identify the barriers and enablers related to the supplier-development practice of logistics performance management. It does this through its defined purpose to *explore and assess to what extent textiles supply chains display the best practices and barriers to logistics performance management that exist across supply chains in general.* In the paper, the term best practice is used rather than enablers, as this was the initial focus when this research process was initiated. The focus has shifted towards enablers instead as my understanding tells me that enablers is a broader concept than best practices. Whereas enablers are seen as factors that assists a firm in achieving development, best practices are seen as the processes and methods (compare supplier-development practice) used or implemented (Batson, 2009).

Best practices stemming from the literature review as presented in paper one are collaboration, agreed metrics, limited number of metrics, metrics dictionaries/validated metrics, shared and specific targets, good/integrated IT support, frequent exchange of measurement outcome, and collaborative analysis/improvement actions. A number of those so-called best practices could be seen as enablers, e.g. agreed metrics, limited number of metrics, shared and specific targets, integrated IT support for data capturing and reporting etc. as they assist the supplier in achieving the developments. Many of the identified enablers also has their mirror image presented as a barrier—in relation to agreed metrics, there is differing metrics; in relation to metrics dictionaries, there is lack of metrics definitions; and in relation to good/integrated IT support there is lack of IT support for data capturing and reporting—again indicating that best practices can be seen as enablers.
The findings identify a number of the above-mentioned barriers and enablers. Barriers and enablers related to context, to the performance management process itself and to the different activities are identified. In terms of barriers related to context, the multiple supply chain interfaces and internal competition are identified, and for the enablers, collaboration in business processes based upon power is identified. In this instance collaboration can be seen as a best practice and (buyer) power as the enabler. In terms of the performance-management process, the identified barriers related to e.g. lack of trust and difficulties in establishing a collaborative culture. Related to specific activities in the process, the exchange of action plans between the actors enable improvement projects across long geographical distances, and barriers in the shape of differing metrics within and between supply chain actors was identified. The paper builds upon the performance management literature focusing on barriers and best practices.

**Paper two—Supplier experiences and views of barriers and enablers of supplier development**

The purpose of paper two in relation to this thesis is to identify the enablers and barriers related to supplier-development programs. It does this through its defined purpose of exploring barriers and enablers that affect the development of supplier performance and capability as experienced by the supplier. The paper contributes with insights into the discussion of barriers to and enablers of supplier-development programs in a local sourcing context. The findings indicate multiple barriers in a local sourcing context, such as lack of long-term goals and agendas, lack of proactive supplier development, lack of information sharing, lack of feedback and lack of rich communication mediums. The enablers of supplier development as experienced by the suppliers are the formalization of communication and customer attractiveness. The paper draws from the supplier-development literature of barriers and enablers.

**Paper three—Supplier development: The barriers of being developed by many**

The purpose of paper three in relation to this thesis is to identify barriers to supplier development for the experienced total of supplier development where multiple buyers and/or multiple individuals may be involved. The paper does this based on its purpose to explore barriers of being developed by many buyers simultaneously and over time as experienced by suppliers; the supplier development is hence not specified as relating to one specific practice or one specific program of a specific buyer. The paper offers a discussion of the specific barriers that can relate to the ‘being developed by many’.
The findings point towards barriers in supplier development due to frequent turnover of the buyers’ supplier development and purchasing staff and the related changes in supplier-development agenda. The findings indicate three different barriers. The first is the challenge of contradictory interests. Interests that try to steer the development of the suppliers in different directions in terms of capability as well as production/product focus. This first barrier is noted as being created by different buyers attempting to steer the developments of the supplier in different directions, but also in contradictory interests between the buyer(s) and the supplier itself. The second one, the barrier of lack of continuity refers to being developed by many individuals over time with differing agendas and differing focus—indicating that the supplier-development work goes in waves from one focus to another with the risk of the supplier development never reaching the core of the supplier organization but rather creating ‘surface changes’, making it the management staff’s task to present the right information at the right time to the buyer(s) rather than implementing changes based on the buyers’ supplier-development work. This draws attention to what Lascelles and Dale (1990) presented (based on Schon 1971) as dynamic conservatism. Instead of assisting in changing behaviors and attitudes, the supplier-development effort may be seen as a disruptive threat to the organization, and the supplier organization will then comply to the least possible extent with the requirements for change (i.e. ‘dynamic conservatism’).

The third one, the barrier of lost relationships is strongly related to the second but focuses specifically the relationships between individuals. As staff comes and goes, individual relationships are disrupted and knowledge of the supplier capabilities/the agenda going forward is lost. This directs the communication between the actors to the portals and other indirect means which the suppliers do not see as adequate or sufficient. Those lost relationships also create a perceived lack of responsibility of the purchasing staff. The paper draws from the supplier-development literature but also from the network literature in an attempt to explain the results of the empirical study.

3.5 The analysis to answer the research questions

The introduction with the purpose and research questions outlines the direction of the analysis for the main thesis. The purpose of this thesis is addressed through the two research questions treated separately in chapter five. Parts of the literature review (chapter two) and the empirical data from studies four and five (presented in chapter four) form the basis for the analysis aiming to answer research question one (RQ1). Parts of the literature review and the findings of papers one, two and three (appended) is the basis for the analysis answering research question two (RQ2). A presentation of how the
research questions relate to the literature review, the different papers and the empirical data in chapter four is presented in Table 6 below.

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Literature review</th>
<th>Findings (empirical or from the papers)</th>
<th>Type of analysis in thesis frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1. How do suppliers experience and perceive supplier development?</td>
<td>Primarily 2.1 from the literature review feeds into the analysis.</td>
<td>Empirical findings in terms of suppliers' experiences and perceptions of supplier development feeds into the analysis. The empirical findings are presented in chapter 4, &quot;Empirical findings&quot;.</td>
<td>The analysis is a &quot;first level analysis&quot; building on empirical data. The analysis results in descriptive accounts of supplier development as experienced by the suppliers. The accounts are structured in three themes identified through the empirical data. Some tentative explanations for the findings are given.</td>
</tr>
<tr>
<td>RQ2. What types of barriers and enablers do suppliers perceive and what tentative explanations can be offered for the perceived barriers and enablers?</td>
<td>Primarily 2.2, 2.3 and 2.4 from the literature review feeds into the analysis. The abstraction levels of supplier development pictured in 2.5 (derived from 2.1) steers the presentation.</td>
<td>The findings/results of papers one, two and three in terms of identified barriers and enablers feed into the analysis.</td>
<td>The analysis is a &quot;second level analysis&quot; as it builds on the findings/results of appended papers. The analysis results in an increased understanding of what types of barriers and enablers suppliers experience on different supplier development abstraction levels. Tentative explanations as to why they arise are offered.</td>
</tr>
</tbody>
</table>

Table 6. How the research questions relate to the literature review, findings and analysis in the main thesis

A further discussion of the actual findings, research question by research question follows under headings 3.5.1–3.5.2 below.

3.5.1 Suppliers’ experience and perceptions of supplier development

RQ1 focuses on the understanding of how suppliers experience and perceive supplier development. The analysis elaborates on the supplier’s descriptions of what supplier development is to them and how they perceive it ought to be. The inputs to this analysis is empirical data from studies four and five (presented in chapter 4) and the sections in the literature review focusing on supplier-development practices and programs together with the network approach. The analytic strategy is primarily that of developing a case description (Yin, 2014), based on the categories of content and structure of the
supplier development and complexities in supplier development due to the many actors involved. The resulting descriptive accounts (Merriam, 2009) and visualizations are relevant in and of themselves as contributions to the supplier-development literature; however, understanding how the suppliers experience supplier development is an important piece of also understanding the barriers and enablers at play.

3.5.2 The barriers and enablers in supplier development

RQ2 deals with identifying barriers and enablers in supplier development and creating an understanding of the barriers and enablers. The analysis is an extension of the analysis carried out in papers one, two and three (barriers) and one and two (enablers). The inputs to this analysis are the findings from papers one, two and three in terms of identified barriers and enablers, the sections in the literature review focusing on the barriers and enablers and the section focusing on the factors affecting supplier development and related barriers and enablers.

The findings in the papers can be seen as organized descriptive accounts and categories (see e.g. Merriam, 2009) of barriers and enablers; this analysis builds on those categories and focuses on identifying patterns (Merriam, 2009) and the construction of propositions that could further increase the understanding of the identified barriers and enablers.

Barriers in paper one are related to a specific supplier-development practice, in paper two to a specific supplier-development program and in paper three to supplier development when looking at it as the experienced total of supplier development as perceived by suppliers, i.e. the papers focus different abstraction levels of supplier development. The same logic applies to enablers. This analysis offers an organization of barriers based on the different levels of ‘supplier-development abstraction’ from the very detailed level (practice) to the more overarching, higher level of abstraction (total), looking at supplier development from a network approach point of view. The presentation logic of the findings and discussion follows this organization. The findings related to the barriers/enablers on practice level is presented first, then findings on programs are presented and finally those on the experienced total of supplier development. An initial conclusion is made as to whether barriers differ by any means when looking at them on different supplier-development abstraction levels, and it also results in a proposition as to whether, and if so how, different factors such as sourcing geography matter.
3.6 Research quality

As the research in this thesis is primarily qualitative in nature, a quality criterion suitable for this kind of research has been considered. Trustworthiness implies some form of correspondence to a reality outside of the researcher’s perception. The following section relates this research to the four embedded sets of evaluation criteria for trustworthiness: credibility, transferability, dependability and confirmability (Bryman and Bell, 2014; Halldórsson and Aastrup, 2003). In addition to those criteria for research quality, I have chosen to make a brief remark on research ethics at the end of this section.

3.6.1 Credibility

Credibility is related to the truth value of the research (Halldórsson and Aastrup, 2003; Bailey, 2007) and regards how well the researcher represents the informant’s view of reality. Credible research enriches depth, meaning and understanding of the phenomena under investigation. A credible account rings true to the members of the setting as well as to a reader. The informants play important roles in ascertaining credibility, hence letting the informants correct the picture of the reality that the researcher draws is an important component in striving for credibility. To control for and strengthen the credibility (Halldórsson and Aastrup, 2003) of the accounts, most interviews were recorded, transcribed, summarized into ‘case descriptions’ and sent to the informants for commentary (study three and study four). The informants gave input where they saw a need to explain or further clarify their accounts. For specific questions, additional interviews were carried out in order to verify and create the necessary clarity. For the few interviews where no recordings were made my fellow researcher(s) took notes allowing me to engage properly in the interviews.

Another way of strengthening the credibility of the findings is triangulation. Bryman and Bell (2014) describe different types of triangulation—source, methods and investigator triangulation. Multiple respondents enable source triangulation (Barrat, et al., 2011) present in study three four and five, and hence in papers one, two and three. Additional data sources such as documents complemented the interviews in studies three and four presented in papers one and two. Investigator triangulation was also present in the different studies. A minimum of two researchers were involved. For study three, the interviews were carried out individually by the two researchers; however the analysis was done jointly. For study four, all but one supplier interview (main interviews) was done collectively. During study five, three researchers were involved in the data collection phase where one was taking notes and the other two were moderating and observing during the focus group interviews. Although the
two additional researchers have not been directly involved in the analysis nor the writing, they have later read the materials, and given input based on their interpretation of the focus group interviews (see also dependability below).

3.6.2 Transferability
Transferability refers to whether the research can make general claims about the world, i.e. if it can be applied in another context or the same context at another point in time (Bryman and Bell, 2014; Halldórsson and Aastrup, 2003). One type of transferability is known as naturalistic generalizability, where it is up to the reader to decide whether or not there is transferability. This is based on the similarities of the context described and the context to which the reader would like to transfer the ideas. Therefore, it is important to describe the context and give detailed accounts of what has been examined (Bailey, 2007). In the respective papers, I have aimed at creating accounts of the context and of the supplier perceptions of barriers to and enablers of supplier development in order to illustrate where transferability to other contexts or settings is possible. To the best of the author’s ability, industries have been identified, the type of buyer/supplier relationship e.g. in terms of the products (generic, customer-specific, components or products for re-sell) are cited and have been defined.

3.6.3 Dependability
Dependability refers to the extent to which the study can be replicated with the same or similar results (Bryman and Bell, 2014) and concerns the stability of data over time (Halldórsson and Aastrup, 2003). It also regards whether different researchers draw similar conclusions from the same data (Bailey, 2007). According to Lincoln and Guba (1986), it regards the process rather than outcome of the research. Different measures have been taken in the quest for dependability in this research and for the possibility to make a dependability judgement of the same. The interview guide in study three allows for another researcher at another point in time to ask the same or similar questions. In study three both researchers separately reviewed interview notes and transcripts, and the analysis of data was done through thorough discussion and judgement of the data. The first independent and then collaborate assessment of data promoted different interpretations. A close relationship has been kept with the tutoring committee, and their input on the research has been taken into consideration. As most of the data collection has been recorded, there is a possibility of going back to the data. All in all, this means that the research has been subject to external audit throughout the research process, and a possibility for further auditing has been provided.
3.6.4 Confirmability
According to Halldórsson and Aastrup (2003), confirmability refers to the objectivity of the research, meaning that the researchers did not let personal biases or values affect the research. Complete objectivity is not possible in case studies as there are close interactions between researcher and the data, and complete objectivity is also not always sought for (Bailey, 2007). It is however important that it is clear that findings are supported by data. The confirmability criterion is hence concerned with the product (data and reconstructions), rather than the process (Lincoln and Guba, 1986). Confirmability relates to the degree to which the results could be corroborated by others. The steps taken to secure confirmability is by individual and joint analysis work (in study three), ongoing discussions of interpretations with the tutoring committee as well as fellow researchers (study three, four and five) and by letting faculty members in logistics, supply chain management and industrial marketing, as well as industry representatives read the drafts throughout the writing process. The papers (not necessarily in their final form) have also been presented and discussed at conferences; hence, researchers have had the opportunity to question interpretations and give input on the studies and their findings strengthening the confirmability of the research.

3.6.5 Research ethics
As the research in this thesis is empirical, research ethics related to e.g. confidentiality, informed consent, and deception are important topics to consider (Vetenskapsrådet, 2011). Researchers should ensure the confidentiality of the informant’s records and the anonymity of accounts if requested to do, so and, if requested, firms involved in the research should be anonymized to not allow for identification. In this research, firms are anonymized and informants are presented based on their functional responsibility. There are multiple possible dimensions to anonymity in this research. A first dimension is the anonymity of the firms in relation to those who come across and read this thesis and papers, a second dimension could be the anonymity of the supplier firms in relation to the buyer, and finally the anonymity of the informants themselves. In study three the potential anonymity aspects to consider is the anonymity of the firms to the reader. As the suppliers were selected and known by the buyer, they did not have the opportunity to be anonymous in this regard. Informants are mentioned with their functional responsibility, but no statements are tied to a specific informant. None of the informants presented any wish to be anonymous but as no specific benefits of presenting firm names were apparent, the choice to not present firm names was made.

As to the anonymity of the firms in study four, the buyer did not present any concerns and only one supplier informant expressed the wish to be presented
without the firm name—this is the main reason not to present firm names from study four. No specific request to be anonymous to the buyer was presented. Informed consent regards the informants’ opportunity to make informed judgement about their involvement and whether or not they allow interviews to be recorded. In this research, the informants have been informed of the aim of the research, asked if they wish to continue with the interviews, and informed of any recordings. As they have also been able to read the case descriptions afterwards, they have had the opportunity to ensure that misunderstandings have been avoided. Deception can be avoided by explaining the true nature of the research and trying not to mislead the informants. However, as the research takes turns and as new features of the research reveals itself, this is impossible to avoid altogether. To the best of my ability, I have however tried to explain my motives going in to each interview situation.

3.7 The researcher’s contribution to the papers and thesis

This licentiate thesis consists of parts that are self-authored—papers two and three and the main thesis and one co-authored paper—paper one. The following describes how the work has been divided between the researchers/authors, focusing on the writing process as the research process is described above.

3.7.1 Paper one (published)


This paper is in all aspects an equal effort by the two authors. In terms of generating idea generation, the second author was the driving force. The outlining of the paper was done jointly. The written literature review was performed in collaboration where some sections were initiated by the first author and finished by the second and vice versa. The writing of the case studies was done in the same manner as the data collection—the second author wrote about the Nordic supply chain and the first author about the global supply chain. The analysis was developed jointly whereas the first author did the majority of the writing. The reviews were managed jointly and based on discussions and agreements between the authors.
3.7.2 Paper two (submitted to renowned journal for logistics and purchasing research with double blind review process)

The appended paper is self-authored. I am responsible for anything from idea generation through the analysis to the writing of the paper. A previous paper building on studies one and four[^4] was co-authored with the researcher colleague with whom I conducted joint data collection. The appended version of paper two has a different purpose, builds on more data from the study and contains none of the parts written by my co-author of the previous paper (first draft of methodology section).

3.7.3 Paper three (conference proceeding)

The paper is self-authored and the author’s own product from idea generation to the writing of the paper.

4. Empirical findings

The purpose of this thesis is addressed through the two research questions. The empirical findings presented in this chapter stem from studies four and five and are the basis for the analysis aiming to answer research question one (RQ1). First empirical findings from the case study (study four) are presented, structured supplier by supplier. Next the findings from the focus groups (study five) are presented—the findings from each focus group are presented jointly as one descriptive account. Empirical findings to answer RQ2 are found in the three appended papers.

4.1 Empirical findings from the case study—The heavy vehicle industry suppliers

4.1.1 Supplier A

Informants are the Quality Manager and the Sales Manager. The supplier has multiple production sites and delivers to the whole buyer group. The relationship with the focused buyer has been well-established over the course of twenty years.

The supplier development experienced by the supplier representatives is focused on measuring and following up on supplier performance. According to the quality manager, the amount of measuring and following up the buyer is performing has been increasing over time, specifically the follow up and control that demands are met has increased. The buyer has a lot of different auditing and evaluation tools which the buyer uses, e.g. when the supplier is going to be certified according to different industry standards. The quality manager however questions if this really ought to be perceived as supplier development.

“Is it supplier development to place demands on the supplier to work according to a certain standard”? [Quality Manager, Supplier A]
The supplier rather perceives that supplier development is the active involvement in solving actual problems or foreseeing potential problems and working preventatively to solve those. The supplier acknowledges the importance of geographical proximity for the buyer to be able to manage this on-site presence.

“Supplier development for me is when the buyer is present at our premises, working together with us on non-urgent matters”. [Sales Manager, Supplier A]

The more problem-based emergency visits are not necessarily perceived as supplier development from the supplier’s side; however, the supplier still presents the following as a successful supplier-development effort.

The example is when the buyer and supplier jointly made a development effort initiated by a crisis situation. The starting point was a non-conformance between demands, buyer expectation and supplier performance. The buyer had a person assigned to support the supplier in their internal work, as well as the work with the involved sub-supplier. According to the supplier, the buyer did what they could in terms of supporting the improvements; they also listened to the needs of the supplier. The buyer placed demands, supported the supplier with production-related knowledge during site visits and made site visits together with the supplier to the sub-supplier. The expectation in return was swift development and problem solving. The person assigned to help solve the problem had a technical- and production-related background, which according to the supplier is key.

“[ . . . ] anything else would be useless in a situation like this. With that experience you have a lot to give to us, as well as internally, when handling claims like this”. [Quality Manager, Supplier A]

The initial aim was to stop the flow of non-conforming items from the sub-supplier. The first step was to create a filter for quality control. The buyer representative was the one to set the level of the quality control, to make sure the inspection was made on the right level. The buyer representative was responsible for creating an ‘interpretation manual’ of how to interpret the standard. Responsible persons were assigned and follow up was made weekly. Education of the supplier staff was also made for how to interpret the demands from the standard. The next step was to create an action plan, to make sure the production could stay in control, to show progress to less non-compliance, and to secure the level for the future.
Prior to the industry crisis in 2009, the experienced supplier-development work was more active and involved. It took years for the buyer to recover and to start getting involved in supplier development again. At the present time, supplier development is driven by the supplier-development engineer (SDE) focusing primarily on logistics matters with a focus on delivery precision. The SDE has instigated monthly meetings driven by a scorecard with key performance indicators (e.g. quality deficiencies, delivery precision). The meeting also addresses what quality tools to implement or what has been implemented in order to locate quality deficiencies before they occur. The focus is on the process and how the supplier secures quality for all items at all times.

In supplier development, the points of interaction with the buyer are many. The primary contacts are the purchasers for different segments or different projects. Another main point of contact is the supplier-development engineer (SDE). The supplier experiences that the buyer’s staff is continually changing. This creates arm’s length relationships between the buyer and supplier staff despite the facts that the relationship on firm level is old and the supplier is a preferred supplier. The supplier perceives that the constant change of staff in purchasing positions affects the supplier development negatively as it reduces the supplier to a price cell in an excel sheet. It is seen as difficult to get any focused development work when personal relationships are lacking. In order to create functioning development work, the communication and availability of people is vital, and personal relationships are important to reaching that point.

“Having someone on the phone screaming at you is not development”. [Sales Manager, Supplier A]

The supplier acknowledges that not everything the buyer wants to do in terms of supplier development is possible for them to accomplish. The supplier needs to put focus on activities where the payoff is big enough. All changes take time and energy to implement. As production is very complex, one small change in a process creates a lot of ripple effects, and it takes time before the routines have set and it is possible to reap the benefits of the different initiatives.

“Development and change is faster on paper than in reality”. [Sales manager, Supplier A]

In the aftermath of the crisis, the supplier was re-segmented, making earlier supplier-development efforts useless. The supplier experience is that the segment is not defined for the benefit of the supplier. Due to re-organizing and
re-structuring at the buyer’s end, the supplier has ended up in a segment that is narrower than it used to be, not using the full potential of the supplier.

The supplier delivers 500 item numbers to the buyer; hence, it is not one item number that makes the buyer a customer to this supplier, but rather a full range of products. The supplier experiences that the amount of item numbers increases the buyer’s patience with the supplier as it poses a big problem to move that many item numbers from one supplier to another. The supplier also perceives this is one reason the buyer works with supplier development.

“It is less expensive to develop us rather than to terminate us”. [Sales manager, supplier A]

4.1.2 Supplier B

Informant is the Sales Manager. The supplier has multiple production sites and delivers to the whole buyer group. The relationship with the focused buyer is, more than twenty-years old.

The supplier perceives that the buyer uses high demands as a supplier-development practice, expecting the supplier to develop and deliver accordingly—without the intervention of the buyer. The current focus for the supplier development is quality and capacity. The buyer is currently not doing anything within the suppliers’ operations; instead they follow up and expect the supplier to report.

When things are not working, the buyer is also lending support with their knowledge and expertise. When problem situations are at hand, the buyer and supplier employees discuss and test different solutions, and the sales manager perceives this as good supplier development.

“As they have an overview, they also compare us with look-alike companies and give ideas on what to do, ‘think about this, do that, maybe it can help you’”. [Sales manager, supplier B]

If serious problems or deviations are at hand, the buyer issues a report, and the supplier is asked to respond within 24 hours with short term actions and root cause analysis.

Within ten days, the supplier should be able to secure, or plan for, long-term solutions. The supplier usually proposes the solutions themselves, but if the buyer is not pleased with the proposed actions, they interfere with proposals or with demands.
“The cause needs to be isolated, and answers like ‘it was the human factor’ are not accepted as a cause”. [Sales Manager, Supplier B]

If the supplier experiences multiple deviations, the supplier-development engineer always visits the suppliers’ production to assist in the investigation, to propose changes, and to create action plans. In these instances, the SDE is part of the work group at the supplier’s; supporting, asking questions, measures, taking samples and sharing the overall impressions he/she has of the suppliers’ operations. Sometimes the supplier is aware of the deficiencies pointed out by the SDE; however, for different reasons, they may not have been prioritized. The created action plans are presented by the SDE to the management of the buyer. All proposals should be approved by the management in the buyer organization. The SDE also follows up on the action plans and makes sure the supplier works in accordance with them. The supplier experiences that the work of the SDE is primarily reactive. The supplier has requested the buyer to run the ‘buyer production system’ (BPS) at the supplier premises as during the implementation the supplier expects the buyer to focus on more things, also seeing risks and potentials in areas where there are no current problems. The supplier sees the BPS as a means for the buyer to share their knowledge, utilizing the bigger bank of resources that they have.

In terms of supplier development, the primary contact points are the SDEs, quality staff and different purchasers in the buyer organization. The former responsible buyer and the supplier agreed to start meetings every quarter to put more focus into supplier development and the business relationship. One meeting per year takes place on the supplier’s premises and the other three at the different buyer production units. The supplier perceives the quarterly meetings to have had immense positive effect on the supplier development and the relationship as such.

“[ . . . ] all problems have been solved within three months. Before the next meeting nothing is forgotten, the full agenda is worked through”. [Sales Manager, Supplier B]

The quarterly meetings were a joint initiative between the supplier and buyer. Due to the big volumes and big turnover between the two companies, both buyer and supplier agreed it was necessary to give structure to the communication and cooperation between the two firms. The agenda of the meetings is rather fixed, where both buyer and supplier inform of what has happened since the last meeting. The key performance indicators are agreed on, and the last points on the agenda may include new components, buyer quality problems where the supplier’s components may be involved, supplier
quality problems, etc. Depending on the last points on the agenda, any function may be represented in the meetings; however sales, purchasing and supplier-development engineer always attends those meetings along with planners from the respective sites.

“We have meetings every quarter with the team. One meeting per year at our premises; the other in different buyer sites. [. . . ] The balanced score card is discussed. [. . . ] Sales and purchasing attend every meeting, and the supplier-development engineer. [. . . ] Planners and development engineers might attend based on what's on the agenda. [. . . ] The buyer informs of what has happened, and what will happen, we do the same. Key performance indicators are emphasized. At the end we often go into new components, quality problems that the buyer has where our components are involved and our quality problems”. [Sales Manager, Supplier B]

As the supplier is a preferred supplier, they expect the buyer to involve and share their resources and competences. The supplier mentions that when the buyer puts their energy and muscles into issues, they are very strong, very professional and can make a huge difference for the supplier.

“The buyer has teams working with nothing but lean [. . . ], and if you are a preferred supplier, I think this should be included. It is one way for them to pay back for having an efficient and cost effective current and future supply. [. . . ] They have a bank of resources that we suppliers will never have. It is things like this that makes us want to work even more closely with them [. . . ]. [Sales Manager, Supplier B]

They have teams working with nothing but lean and agility or production or layout issues. The supplier acknowledges that it cannot be possible for the buyer to invest resources in this way with all their suppliers as they have many. However, as they are a preferred supplier, the supplier perceives this should be the case as it is one way for the buyer to pay them back for having an efficient and cost effective current and future supply.

“They don’t earn anything by changing suppliers, as well as it is costly for us to lose a customer”. [Sales Manager, Supplier B]

### 4.1.3 Supplier C

The informant is the Sales Manager. The supplier has a single production site and delivers to multiple buyer group firm sites. The relationship with the focused buyer is established, well over twenty years.
The supplier-development work of the buyer is primarily connected to the demands put on the supplier to develop. Those demands regard development in different areas. It can be related to price, quality, and delivery precision. Volume flexibility is very important for the customer and a focus of development. The response time connected to quotations and prototypes is also being emphasized. The different types of third party certifications are often a prerequisite to get new and continued business. Another important aspect of the supplier development is the longevity of the buyer/supplier relationship.

“In order to secure the development progress, the longevity of the business relationship is a prerequisite”. [Sales Manager, Supplier C, study four]

According to the supplier, the supplier development of the buyer is a joint effort between the category buyer and the SDE. The category buyer is perceived to own the supplier-development agenda. The buyer and supplier have quarterly meetings on supplier premises and at different buyer sites. The meetings have an agenda for quality, news from supplier and buyer, quotations, etc. The supplier perceives the meetings to be very important and rewarding. Supplier staff tries to always prioritize those meetings. The supplier is usually represented by the sales manager, the key account holder, the quality manager, and the planning manager. From the buyer, the purchasers and supplier-development engineers attend the meetings. If needed someone from quality or planning may also join. The quarterly meetings are a rather new initiative, only a few years old, and the sales manager tries to recall who initiated the meetings:

“It is most likely a joint initiative, based on an identified need during discussions”. [Sales Manager, Supplier C]

Additionally, there are frequent meetings with different purchasers and the SDE; however, these are not scheduled with any certain frequency. The meetings with the SDE takes place as needed, most often when there is a problem. If there is a problem at hand, the SDE always visits the supplier’s premises.

The internal processes are expected to be developed by the supplier itself to reach the productivity increase planned for. The supplier works with lean, and this is one way to reach higher efficiency. The buyer rather determines the demands and requirements.

The supplier does not experience that the supplier developer is ‘in their neck’, and interprets this as having a fairly problem-free situation. If problems arise,
the supplier developer is there. Suppliers with problems have a lot of discussions with the SDE. Purchasers as well as the SDE visit the supplier production at times, discussing certain items. According to the supplier, this is real supplier development.

“[ . . . ] when the buyer gives advice, asks questions and proposes changes, this is when things are happening”. [Sales Manager, Supplier C]

The sales manager closes the interview by saying:

“The customer has a good strategy for supplier development; the staff is experienced and knowledgeable. They understand production and have a broad experience of different processes. The customer is good at supplier development”. [Sales Manager, Supplier C]

4.1.4 Supplier D

The informant is the Quality Manager. The supplier has a single production site, however they belong to a larger supplier group. They deliver to different buyer firm sites of the ‘the focused buyer’. The buyer is the only customer account within the buyer group. The relationship with the focused buyer is approximately 15 years old.

According to the supplier, the buyer’s supplier development means that the SDE is following the supplier’s performance and actions are taken by the buyer after a problem has occurred.

“Little is done to develop us before the fact”. [Quality Manager, Supplier D]

If there are quality problems, the SDE gives inputs to the action plans presented by the supplier. If the problem is perceived to be serious, the SDE requests an action plan in different steps; when accomplished by the supplier, the SDE verifies the plan. Those instances may render a buyer visit to the supplier premises. For really serious issues, an 8D report is issued and is the most important signal a supplier can get from the buyer in terms of quality issues.

The supplier has not experienced any time when the buyer has invested a lot of resources and time in order to help to solve problems at the supplier’s. Much information is shared via the portal. After the crisis (2008–2009), the buyer was more active with supplier-development activities and other forms of cooperation. They were present at the supplier’s site, trying to help out. Now the focus has shifted back to profitability or low cost. The supplier-development engineer visits the supplier every now and then and has frequent
phone meetings. There are, however, no planned or scheduled meetings. Occasionally the supplier is invited to the customer’s premises, usually to go over the supplier performance and to receive information.

“We have frequent phone meetings with the supplier-development engineer . . . there are no planned or scheduled meetings. Occasionally we are invited to the customer's premises. [ . . . ] Normally this is to go through the performance and to receive information”. [Quality Manager, Supplier D]

The supplier perceives that real supplier development would be if the SDE would lobby for the supplier’s point of view in the buyer organization and initiate meetings with the design engineers to collaborate around the component specification and to propose components that suite the supplier’s production equipment. With the current SDE, this is not happening. According to the supplier, certain SDEs are better than others when it comes to this. The lack of support from the SDE when it comes to transferring knowledge about the supplier and supplier capabilities into the buyer organization is seen as a barrier. With the correct information about supplier production equipment and capabilities, it would be easier for the buyer to make constructions that suit the supplier, and the supplier would be able to quote for items that are a good fit as the quotation process is time consuming.

### 4.1.5 Supplier E

Informants are the Quality Manager and the Sales Manager. The supplier has multiple production sites and delivers to the whole buyer group. The buyer is the supplier’s smallest customer account within the buyer group. The relationship with the focused buyer is 15 years old.

The supplier experiences the supplier development to be focused on demands and requirements from the buyer for the supplier’s development, rather than active involvement in the development work. The majority of the active supplier-development work is also said to be done in a reactive fashion when there is already an identified problem.

“We have another customer outside the buyer group with initiatives to educate their suppliers, sharing knowledge on what they have seen, what the suppliers can improve. They have workshops in their own factories and invite supplier staff. This is a more proactive buyer, looking at the long-term perspective, even though it is a new endeavor for them as well”. [Quality Manager, Supplier E]

When problems are at hand, the 8D-principle is used. The routine procedure when a claim situation arises is that the buyer informs the supplier, requests
information on cause, short-term action and long-term actions using the 8D principle common in the automotive industry. The working method is implemented, but the supplier perceives the interest and feedback is lacking from the buyer.

“It is out of focus, not prioritized; primarily the formal feedback is lacking”. [Quality Manager, Supplier E]

If necessary to solve the problems, the SDE may get involved in the development work.

From a supplier-development perspective, the current SDE is said to be unique, both in the buyer group and as seen over time in relation to the buyer as (s)he was the first to initiate monthly meetings offering structure to the supplier-development work.

“The SDE is working in a very structured manner; this is not happening in the rest of the buyer group—neither historically with this buyer. We have requested monthly meetings with SDEs from the other buyer group firms now”. [Quality Manager, Supplier E]

The focus of the supplier-development agenda is the quality and delivery precision, followed up during the recently initiated monthly meetings. The supplier has representatives from the quality and logistics functions in those meetings.

Until recently, the buyer has not paid attention to the internal improvement work of the buyer. It is only the latest SDE who has started to ask questions regarding how the work is being done. According to the supplier, sharing only limited opinions of how it should be done and asking only few questions as to why the work is done in the current way. As most supplier-development work is reactive, the supplier experiences that the SDE is not the only contact for supplier development and for ad hoc issues, other, unofficial channels are most frequently used. Old relationships on a personal basis are the best to utilize to find the right information and to get things done.

“Our employees who have been working since the start of the projects—they know people in the different buyer’s sites; those in turn know the components in and out. This is by far the quickest and easiest information exchange—and means of getting things done! The official information channels exist, but it is normally the unofficial that solves problems”. [Sales Manager, Supplier E]
Recently some more proactive supplier-development practices have been initiated—the supplier has been involved in buyer projects for improving the performance of the buyer vehicles. The team around the supplier developer, and the project buyers located in Sweden have started to be more active and drive different matters. Those development efforts are not driven by the category buyer, which the supplier believes is the responsible purchaser. Rather it is understood as a local project buyer initiative.

The segment to which the supplier belongs used to have a category buyer assigned who resigned a few years earlier. Until this time the relationship was functioning well and both parties had a very high knowledge of the components, commercially as well as in details. When this purchaser resigned, the buyer had problems replacing the purchaser of this type of components. The result was a buyer/supplier relationship that the supplier experienced to be in a vacuum; contacts between the buyer and supplier were basically non-existent. Contacts happened only informally on a grass-roots level. The buyer finally put the buying of all segment components with one purchaser, located in Germany.

“The relationship works but it is very formal with very few face-to-face meetings. The purchaser is a very concrete, professional, a one-liner type of guy. Currently there is no deeper relationship between us and the buyer on this level—it is more of a maintenance-mode”. [Sales Manager, Supplier E]

Much of the information is shared through the supplier portals. The buyer group firms have different portals separate from one-another. The scorecard is a weighted total from all the buyer group firms presented on the different portals. Quotations and claims are handled separately.

“[ . . . ] which is rather confusing”. [Sales Manager, Supplier E]

“All together, this buyer is rather confusing, maybe because we are not such a giant company ourselves”. [Sales Manager, Supplier E]

The supplier portal is also said not to function very well in terms of information exchange. The supplier experiences that they do not get feedback to proposals submitted via the portal, and it is not clear whether the buyer is satisfied with proposed solutions.

“As we are not in contact very often there is no clear response from the buyer. There is no “This is great, why don’t you implement this initiative in other parts of the production as well”. [Quality Manager, Supplier E]
The lack of feedback is said to lower the motivation of the supplier. “Other customers require answers and give feedback more promptly; those questions are followed more carefully. [. . .] It is the same internally; if there is no real demand for an action or a response, things seem not to happen”. [Quality Manager, Supplier E]

**Complexities of being developed by many**

The supplier experiences a supplier-development situation with many different buyers having interest and stake in their developments. The buyer group is perceived to be especially complex. The supplier works with multiple buyer group firms (BGFs) with multiple production sites. The perceived primary stakeholders in supplier development are purchasers (on different levels) and supplier-development engineers (SDEs), but also construction engineers and other BGF representatives do affect and have a stake in the development of the supplier. Within the buyer group alone, the supplier has relationships with 16 purchasers, including the three purchasers of the buyer. The purchasers have different responsibilities for e.g. running a range or new developments. For each specific BGF, one purchaser has the overall responsibility of the supplier account. Five different SDEs work with the supplier. The communication structure is experienced as fragmented with many interfaces and unclear responsibilities. In addition to the buyer group, the supplier works with other customer accounts—single firm or group accounts.

Different buyers and the different BGF have diverse demands and requirements for the developments of the supplier. The BGFs are said to approach the supplier with different supplier-development agendas and contradictory requirements. The supplier finds it problematic to relate to all the different views of the BGFs and all the different contracts they have signed with the BGFs in addition to the overall frame agreements. The supplier experiences that the buyer group does not share a common view. Despite having one purchaser with the overarching responsibility for the supplier and the relationship with the supplier, the supplier experiences that the buyer group does not have a total overview and understanding of the supplier and its specific abilities and capabilities. The supplier then questions how the buyer, as it is rather small in relation to its sister companies, can run its own agenda separate from the buyer group. Also, despite the ambitions of the SDE, the supplier questions his/her possibility to dig into questions that are important to the buyer.

In order to manage the many—and at times contradictory—buyer requirements for their development, the supplier mentions that their integrity and their way of doing things are important. It is important to the supplier that
they, themselves manage their own business and do not act without consideration on any new request from a buyer.

“[ . . . ] we can’t have one buyer here one day telling us how to do [things] and another customer another day telling us something different”. [Quality Manager, Supplier E]

Despite the complexities involved in having many buyers partaking in development activities with the supplier, the supplier mentions the importance of getting access to best practices from different buyers. The supplier has the possibility to consider implementing the practices in their own operations with the support of the buyer.

“What we do get though is the access to best practices from different customers, and we can consider implementing them. [ . . . ] If needed, we get the buyers’ support to do so”. [Quality Manager, Supplier E]

The supplier experiences that the buyer frequently re-organizes, which creates changes in responsibilities of the buyer staff.

“They have lost themselves in the re-organizations and moves between factories”. [Sales Manager, Supplier E]

The changes are seen to obscure the communication channels between the buyer and supplier as the staff on different positions changes, and relationships on personal basis are lost. In relation to the buyer group, it is not clear to the supplier who has the overarching responsibility neither for the supplier relation as such nor for the development agenda of the supplier. The supplier experiences they are often left to use contacts on a grass-root level to get feedback and decisions taken.

“We can honestly say we don’t know whom to contact”. [Sales Manager, Supplier E]

The supplier experiences that the supplier-development working methods are not firm-specific, rather related to the individual at the SDE position as the different SDEs work with different working methods. The supplier experiences that the SDEs change frequently and without thought from the buyer’s side with the result that the supplier business and the operations is not really developing. Instead the supplier development is perceived to go in waves from one focus to another without a clear aim or goal communicated, nor with a transparent agenda.
“First, you focus on an FMEA-model; this was the case when I started in 2010. Six months later this stopped, and a new guy came. He was a doer and wanted to be in our production—a lot of visits, and everyone in our production was expecting him to be around most of the time. Then he disappeared. Another guy came; he had been working with airplane engines—everything needed to be 100% or the plane would go down! All documents needed to have the right numbers; this was the time for documentation. When he left, a consultant came. He was a pragmatic. Had had his own business: ‘I’ll sign everything, let’s clear everything, to make sure we get things going!’ The current guy is a bit laid back, and of course focuses on root-cause analysis. That is the agenda these days”.

[Sales manager, Supplier E]

In relation to the changes in purchaser and supplier-development staff, the supplier acknowledges that the internal improvement work is not highly affected by the buyer employees, but rather managed by the supplier according to their own development agenda.

“[...] if it were, we would need to re-organize all the time. [...] It is more what the management staff needs to focus and put forward at different times that are affected by those people”.

[Quality Manager, Supplier E]

Any new requirement from the buyer is handled by the management staff, often through reporting. As supplier-development engineers change, new forms for reporting are implemented and more often than not the supplier experiences that the old forms are not discontinued, creating frustration in the supplier organization.

“It is impossible to run development projects if the project manager is constantly changing, [...] filling out new excel forms without the old ones being discarded; it creates frustration”.

[Quality Manager, supplier E]

The supplier experiences a lack of continuity, or lack of pulse but experiences that the current SDE of the buyer is trying to create this through the more formalized supplier-development agenda. Continuity in the supplier-development agenda together with personal, face-to-face meetings and supplier developer presence in the production gives a good basis for improvements according to the supplier.

In order to deal with the experienced situation, the supplier currently focuses on how they are dealing with their business and customers. The common denominator and theme is buyer visits in order to create a deeper understanding of the buyers. The networking and understanding of who takes
what decisions where is perceived to be very important in order to be able to approach the right people.
“If we are sending proposals and don’t receive a response, we need to understand where the decisions are made”. [Sales Manager, Supplier E]

4.1.6 Supplier F

Informants are the Quality Manager and the Sales Manager. The supplier has a single production site and delivers to different buyer firm sites of the “the focused buyer”. The buyer is the only customer account within the buyer group. The relationship with the focused buyer is over twenty years old.

The supplier-development practices are not very intense nor face-to-face according to the supplier. The buyer primarily uses the supplier portal and different materials there for their development activities. The supplier however experiences that if the supplier is in need of support and asks for it, the buyer will give the needed support. The support may regard problem solving but also, e.g. 5S or lean applications.

“If you meet the requirements from the buyer, the buyer doesn’t interfere. If you don’t fulfil the requirements, however, then things might be happening!” [Sales manager, Supplier F]

The supplier receives monthly information on how they are performing in certain areas, based on the supplier scorecard. The information regards which criteria are fulfilled and which are not, e.g. in terms of delivery precision and quality. The supplier experiences that as long as the demands are met, the buyer does not interfere. When demands are not fulfilled, the SDE may visit the supplier premises and join the improvement efforts. The supplier understands that the SDE is assigned to them as they are a preferred supplier of the buyer. The supplier perceives that the SDE works with too many suppliers and doesn’t have the capacity to focus on development outside the problem areas.

“The SD is too busy focusing on problems, so this is why you don’t get access to their full knowledge. If you don’t have any real problems, you don’t get any focused development work”. [Supplier F, Quality Manager]

As the supplier has not had any real production-related problems lately, the buyer has not sent any task force to the supplier to solve any problems. However according to the supplier, the buyer has communicated that this may happen. One example of a supplier-development activity performed lately that the supplier perceives as a good example is that the buyer supported the supplier with their quotations. The supplier and buyer jointly worked with the
cost structure of the supplier in order to generate a complete, in-depth, investigation of the supplier’s costs. It required open books from the supplier’s side. The buyer experience was that the supplier historically quoted too high in relation to their real cost with the inherent risk that the supplier would not get the business.

With this buyer, the supplier misses the frequent meetings that they have with other customers every quarter or monthly. Without the meetings, the supplier experiences a lack of continuity. During the scheduled meetings, the supplier experiences that they can raise questions and get reminders for issues at hand, and most importantly the meetings creates an arena for a dialogue that is bigger than the monthly written feedback sent from the SDE. Usually those meetings are attended by someone from quality, purchasing, logistics and production.

“This is a good way to get the right contacts. It is time saving, rather than sending questions around those big corporations trying to find the person with the yes or no button”. [Quality Manager, Supplier F]

The supplier experiences that those meetings with the face-to-face dialogue are crucial, perhaps the most important to develop together with the buyers, as it gives the opportunity to ask all important questions to the buyer.

The supplier perceives that the buyer staff often talks about improvement efforts that will be taken. However, as people change, priorities change, and the supplier experiences frequent changes in buyer staff.

4.2 Empirical findings from the focus group—SMEs in different industries

The attendees are mid- to top-level managers of SME suppliers to buyers in different industries. Their customers represent e.g. the heavy vehicle, automotive, toys and home and office furniture industries. A few suppliers in the focus groups work with buyers with a similar set up as the buyer/buyer group of the case with purchasers and SDEs; however, most have buyer relationships without the SDEs. The empirical findings presented here regard complexities in supplier development due to being developed by many SDEs.

The focus group attendees do, to some extent, acknowledge the experienced complexities of working with multiple buyers in supplier development. They do not however recognize the complexities with different demands and requirements coming from within buyer groups. Most of the suppliers in the focus group work with single customer accounts. The suppliers in the focus
groups acknowledge that different customers may come with different development agendas for the suppliers and that it is up to the supplier to try to manage this.

“It is quite common that different buyers come with different production systems to develop us”. [Logistics Manager 1, Focus Group 2]

Some suppliers try to push back when this happens, as they want to manage their own operations in the way they see fit.

“[. . . ] well they [the buyers] cannot come and tell us how to do things—only what to do. If they, for example, demand tree weeks of delivery lead time, it is up to us to find a way to do this”. [Managing Director 1, Focus Group 2]

The focus group attendees experience frequent changes in purchasing as well as supplier-development staff of their buyers and that relationship building is getting much more difficult than it used to be. The understanding is that those changes in staff are scheduled and in line with what focus group three refers to as “American business practices”.

“[. . . ] every three years the purchasing staff is changed; often the whole team and a new team enter the game”. [Managing Director 1, Focus Group 3]

The practice is said to be present at most of the larger buyers’. The suppliers acknowledge that the frequent change in buyer staff disrupts any development work between the buyers and suppliers.

“[. . . ] every second year they change all their purchasing staff [. . . ] no developments take place, we barely get to start” [Quality Manager 1, Focus Group 3]

The suppliers also acknowledge that it creates uncertainties, as what will happen when the purchasing team changes, is never clear. This negatively affects the suppliers’ possibility to invest as the direction of the buyer/supplier relationship is not clear.

“[. . . ] this means that everything you work on for a specific buyer has to be finalized by the end of year three since the staff and the organization of the buyer will not be the same year four”. [Logistics Manager 1, Focus Group 3]

The suppliers believe that the staff rotation is happening to avoid any relationship on a personal level between a buyer and its suppliers and to make
sure that the relationship between the buyer and supplier is not maintained due to personal contacts.

“[ . . . ] this is true— the pieces should be interchangeable”. [Quality Manager 1, Focus group 3]

The changes in staff have been seen to initiate some misguided development initiatives due to a lack of understanding for the supplier and their operations in the new purchasing team. As the time is rather long before the individuals in the relationship is up to speed in terms of understanding the supplier, their products, and so forth, not much development is said to take place.

“That period is rather long”. [Logistics Manager 1, Focus Group 2]

With the frequent changes in buyer staff, the suppliers experience that the buyers do not take responsibility for the developments of the supplier.

“The purchaser seems to avoid making decisions. As the purchaser will soon leave the position anyway, it will be up to someone else”. [Managing director 2, Focus group 2]

The suppliers experience that the purchasers and other involved parties seem to focus on keeping the relationship afloat until they move onto their next assignment rather than focusing on the developments of the supplier. The suppliers experience a lack of honesty in the relationship and a lack of decision making.

As the problems with changes in staff primarily regards the bigger buyers, most of the suppliers experience that they have a good understanding for who to contact in different matters and that most communication is personal. However, again the larger buyers seem to hold a certain amount of complexity and the supplier portals seem to be the preferred method of communication and that this at times obscures the more direct communication channels.

“It is very important that the communication works. The customers want direct feedback and answers, and so do we. If you are working on a problem, you need instant feedback to be able to proceed”. [Managing Director 2, Focus group 2]

“[ . . . ] then those emergency visits may reduce. However, they will always happen”. [Logistics Manager 1, Focus Group 2]
Due to the lack of personal relationships and communication through the portals, the suppliers experience problems with receiving information and answers from the right staff. “It can take six months to find the right person”. [Site Manager 1, Focus Group 3]

The suppliers are troubled by the trend that communication is less and less personal.

“It is important that the portal does not take over the personal communication. We need to find the people, the decision makers”. [Sales Manager1, Focus Group 2]
5. Findings and discussion

This section of the thesis presents the findings and discussion in order to answer the research questions. To the highest possible extent, the findings are separated in order to answer the two research questions separately although the questions and answers are, to a certain extent, intertwined and not always easily separated. The first section (5.1) presents the findings to describe how supplier development can be understood based on suppliers’ experiences and perceptions (RQ1). The second section (5.2) presents the findings as to what types of barriers and enablers of supplier-development suppliers experience and gives tentative explanations for those barriers and enablers (RQ2). In order to increase the understanding of supplier development further, the findings and discussion also holds a section (5.3) where definitions of supplier development from extant literature are dissected and a new definition of supplier development is proposed, building on the findings of this research in order to increase the understanding of supplier development and as such secure the fulfilment of the purpose.

5.1 Understanding supplier development based on the supplier’s experiences and perceptions

This part of the discussion is presented in three themes identified through the analysis of the empirical findings. The themes are supplier development in terms of content (5.1.1), structure (5.1.2) and complexities (5.1.3) in supplier development due to many actors involved. Content refers to the practices implemented (i.e. similar to the abstraction level ‘practice’), structure refers to how the supplier-development program is carried out (i.e. similar to the abstraction level ‘program’) and the experienced complexities relate to the ‘experienced total’, the final abstraction level of supplier development treated in this thesis. Empirical data from studies four and five (presented in chapter four) together with the literature review are the basis of this discussion. The
discussion is directed towards answering RQ1. Each subsection is concluded with a synthesis.

5.1.1 The experienced supplier development in terms of content

This section builds on the empirical data from study four viewed in the light of the supplier-development literature.

The supplier development experienced by the suppliers in this research builds on the indirect supplier-development practices of the buyer. The practices are e.g. the communication of requirements, the formal follow up and evaluation of the supplier’s related performance, and trainings via the supplier portals. Also making the suppliers preferred suppliers can be seen as an indirect supplier-development practice through the promises of future business that it holds, looking at it through the lens of influence strategies as Wagner (2010) does. The suppliers experience that the supplier development is primarily focused on the increasing buyer demands and requirements and on the measurement and follow up in order to secure that requirements are met. According to the suppliers, this is a practice that is growing in importance. The suppliers do perceive that the increased demands and requirements force the suppliers to improve, and as such can be seen as supplier development. They do however question whether it is really ‘supplier development’ and not just the supplier’s own development work. The studied suppliers instead perceive that supplier development requires active involvement on the buyers’ behalf, i.e. aspects of direct involvement need to be present in order for the supplier to perceive supplier development. A similar finding can be seen in Arroyo-López et al. (2012), which state that supplier development based on higher involvement is more likely to lead to supplier performance improvements. The suppliers propose supplier development being when purchasers and supplier-development engineers are visiting the production site, discussing certain products, giving advice, asking questions and proposing changes.

Indirect supplier-development practices are seen as the basis of supplier-development programs; however, supplier-development program also hold subsequent direct supplier-development practices. The supplier-development engineer follows the supplier’s performance through the performance measurement scorecard, and if quality or delivery problems occur, the buyer not only refers to the importance of meeting the requirements, they will also get involved. This is in line with the conclusions of Wagner (2006), who states that indirect forms of supplier development in terms of formal evaluation is often followed by direct supplier-development practices in terms of human/capital support. The direct supplier development in the study comes in
the form of joint-development efforts, site visits (in either direction) and audits.

Within the same supplier-development program, the suppliers experience different levels of involvement from the buyer. The suppliers in study four give different views of how supplier development is carried out. Some say the buyer is expecting the suppliers to propose solutions to problems themselves, and if the buyer is not pleased with the proposed actions, they interfere more directly with proposals for actions or with clear demands for actions. Others say that the supplier-development engineers are supporting the suppliers through their on-site presence and knowhow; the buyer and supplier are discussing and testing different solutions together. There are different plausible explanations to those differences. They can be understood either through differing working methods of the supplier-development engineers, even though they represent the same buyer organization, or by that the suppliers are experiencing different types of problems the supplier-development engineer does or does not see the need to interfere with. The latter is however less likely as the supplier representatives state that the buyer may interfere if they are not pleased with the proposed actions. The perceived level of supplier capability may also act as an explanatory factor in instances of more- or less-involved supplier development.

A large part of the supplier development in the study can be said to be remedial (using the vocabulary of Krause et al., 1998) instead of proactive in the sense that capabilities of the suppliers are not necessarily developed beforehand in order to strengthen the competitive position of the firm. Rather, the suppliers agree that most supplier development takes place “after the fact” and that the supplier-development engineers focus on areas where there are already identified deficiencies. This finding is interesting as the supplier-development program of the buyer in study four can be said to be strategic, again using the terminology of Krause et al. (1998), as it involves identifying critical (in case of the studied suppliers: preferred) suppliers and commodities and focuses the supplier-development resources on those selected suppliers. It also involves a formal performance measurement system to formally assess e.g. the supplier’s cost, quality and delivery service performance. The suppliers’ preferred supplier status together with the assignment of a supplier-development engineer speaks in favor of the interpretation that the buyer is not only expecting the supplier development to be remedial and focused on the suppliers with poor performance. The suppliers however experience that the buyer expects the supplier itself to develop internal processes to reach the planned productivity increase.
Preferred supplier status is seen as an informal recognition (see e.g. Lascelles and Dale, 1990) of a supplier with opportunities for expanded or new business and should work as a motivator for the supplier. In the specific case, it seems as if the ‘supplier status’ rather creates expectations of a supplier-development effort the buyer either does not intend or is unable to deliver. As the suppliers are preferred suppliers, which is the buyer’s ‘highest’ classification of suppliers, the suppliers expect something else in addition to the primarily remedial supplier development they experience. The classification is supposed to aid the buyer in focusing their resources on the right suppliers, but also on conveying the right message to suppliers of their current and future status with the buyer. The discrepancy between expectation and experience is hence tentatively understood as created by the buyer’s classification system of suppliers. As the suppliers are component and sub-assembly suppliers and do not deliver items that would be considered critical in terms of complexity, the more focused and long-term developments of supplier capability are directed towards another group of suppliers. That group of suppliers could be seen as both preferred and ‘critical’ in terms of product and/or supplier complexity. The more capability related supplier development is transferred to suppliers through trainings in the buyer’s production system, where e.g. lean or agility trainings are components.

To synthesize the experienced supplier development in terms of content:
This part of the discussion paints the picture of a supplier-development experience that builds on indirect supplier-development practices of the buyer followed by any subsequent direct supplier-development practice implemented. Even the direct supplier-development practices can be seen as remedial, as most take place after deficiencies of the supplier have been identified. Based on the supplier’s actual performance, the suppliers are to a large extent expected to secure their own developments in order to reach the performance expectation.

Depending on the supplier-development engineer (the individual actor), the buyer may work closely with the supplier to solve any problem at hand, or the buyer may expect the supplier to come up with a development plan to reach the expected performance level. In other words, the buyer’s level of involvement differs, seemingly based on the individual actor(s) in the buyer/supplier relationship.

Even though the buyer’s supplier-development program on many accounts can be said to be strategic, there is no clear evidence that the suppliers experience it in this way despite being classified as preferred suppliers. This is tentatively explained by the fact that the suppliers cannot easily be perceived as ‘strategic’ or ‘critical’ suppliers. The coming paragraph goes deeper into the
experienced structure of the supplier-development efforts, as experienced by the suppliers.

5.1.2 The experienced supplier development in terms of structure

This section builds on the empirical data from study four viewed in the light of the supplier-development literature.

The studied suppliers experience different supplier-development program structures, despite technically partaking in the same program of the focused buyer. All suppliers mention the performance follow up where the results are communicated to them via the supplier-development engineer. This is however where the similarities across the group of suppliers end. Two suppliers have formal quarterly meetings together with the buyer, where both buyer and supplier are represented by different functions connected to the flow of materials. Two of the suppliers have monthly meetings with the SDE connected to the release of the KPI results. The other two suppliers have no formalized meeting structure but rather meet with buyer representatives on an ad hoc basis or when there is a problem at hand. Then the supplier-development engineer normally visits the supplier’s premises and joins the improvement effort.

Based on the similarities of the suppliers—e.g. classified as preferred suppliers, delivering large numbers of components or lower level sub-assemblies—no evident explanations for the different working methods of the different supplier-development engineers and purchasing teams based on supplier or component characteristics have been identified. Again, what seems to be at play here is rather the factor of the individual actor(s) in the buyer/supplier relationship involved in supplier development resulting in different working methods and tools between the supplier-development engineers. Hence, despite being subjected to the same supplier-development program, the suppliers do not experience the program in the same way, and the program structure seems to be based on the individual supplier-development engineer rather than that of the buyer.

The difference in supplier-development meeting structure can be seen as different degrees of formalization of the supplier-development work and communication structure. Formalization can be seen as the degree of formal rules and standardized policies and operating procedures (see Daugherty et al., 2006) in the working relationship. According to Prahinski and Benton (2004), executives at supplying firms perceive standardized procedures and formal channels of communication of supplier evaluations positively and in this research absence of or lower level of formalization increases the uncertainties
in the business relation. The suppliers who experience no formal meeting structure perceive most of the supplier-development work to take place through different educations available through the supplier portal. They further wish for a more formalized meeting structure as it sets expectations of what should be done and offers an arena to give and receive information and to create a common agenda going forward. The uncertainties in supplier development can be argued to be higher with lower degrees of formalization.

**To synthesize the experienced supplier development in terms of structure:**
This discussion provides an additional aspect of supplier development in that this thesis argues that, despite the suppliers being subjected to the same supplier-development program of one specific buyer, they do not experience it in the same way. The program structure differs and seems to be related to the individual supplier-development engineer or purchasing team rather than being buyer/firm specific. The formalization of supplier development can be understood to set expectations of what should be done, as it creates the opportunity to give and receive information and to create a common agenda going forward. The uncertainties in supplier development can be argued to be higher with lower degrees of formalization.

In the coming paragraphs, the discussion of the supplier’s perspective of supplier development is continued; however, the focus shifts to the complexities of being developed by many actors (firms and/or individuals) at a certain point in time and over time.

**5.1.3 The experienced supplier development in terms of complexities of many actors**

*This part of the findings and discussion of descriptive accounts of complexities builds on the empirical data from study four (primarily supplier E) and study five (the focus groups), viewed in the light of the network literature. It aims to give additional detail to the picture of the experienced supplier development.*

From the studied suppliers’ perspective, there are added complexities to those of just complying with or participating in one specific buyer’s supplier development. This is in line with Gadde et al. (2010), who state that the supplier development ought not to be viewed in isolation. In this research, Supplier E (study four) experiences, or expresses the most complex supplier-development situation with many actors involved. The actors in supplier development are both firm actors and individual actors (see e.g. Ellegaard et al., 2003).
Buyer firm actors

The involvement of many firm actors in supplier development creates a complex situation where demands and development efforts (Krause and Ellram, 1997a) are initiated by many buyers simultaneously. Firm actors involved in the supplier development of the suppliers in study four include the focused buyer (referred to as ‘the buyer’ in papers two and three), the other buyer group firms (firms belonging to the buyer group), the buyer group itself and other single customer accounts and customer groups. The experienced supplier development of supplier E (study four) is pictured in Figure 8 below, where the buyer, the other buyer group firms and the buyer group are presented in the middle (the buyer and other buyer group firms are presented as different layers of the buyer group), and other customer(s) and customer groups are visualized with the dashed lines. Their supplier-development efforts, whatever practices and programs it may be, are visualized in blue.

All of those firm actors may have interest and stake in the developments of the supplier in line with what Holmen et al. (2013) proposes. The experienced supplier development, throughout all practices and programs of different buyers does, however, not only promote complexity, it also brings added benefits to the supplier in addition to those created by a specific buyer’s supplier development. In line with what Holmen et al. (2013) states, if the buyers have similar needs, the supplier can leverage this development.

Zooming in further into the experienced supplier development, the complexities increase. Supplier E (study four) not only experiences the supplier development of the different customer accounts (buyers or buyer groups), the buyer group firms (BGF) also have different sites (BGF site) that
may or may not have their own supplier-development engineer, or purchasers involved in the supplier development. This is visualized in Figure 9 below where the supplier may receive development signals not only for the buyer group or the buyer group firms but also directly from the different buyer and buyer group firm sites. Again, the supplier development—may it be a specific practice, a requirement (which technically is a practice), or a coordinated supplier-development program—is visualized in blue.

Figure 9. Supplier development on-site level (lower level firm actors)

The empirical findings propose that being developed by many firm actors means that the supplier has to prioritize and make their own best judgement of what routines to implement and what activities to carry out. This is also pointed out by Holmen et al. (2013): when there are competing demands from multiple customers, the supplier may not be able to be responsive toward the needs of the different buyers. For the supplier, it is not always possible for them to change their operations or ways of working depending on the different buyers’ wishes, requirements or demands. Roloff et al. (2015) note that a typical mistake made by buyers is the micro-management of suppliers with an approach that is too prescriptive or too controlling. If this is present in the supplier development when being developed by many different buyers, the situation requires integrity, as the quality manager of supplier E (study four) puts it.

As the supplier-development programs do not take place in isolation but rather takes place concurrently, what goes on in one supplier-development program will influence and be influenced by what goes on in another program (see e.g. Gadde et al., 2010). The supplier needs to be selective as they cannot
necessarily cater to all the needs of buyers within their buyer network, they also need to ensure that they leverage common denominators.

**Individual actors**

The suppliers also experience supplier development by individual actors (Ellegaard *et al.*, 2003). The perceived individual actors in supplier development in this research are primarily different types of purchasers or supplier-development engineers. The suppliers state that within the automotive and heavy vehicles industry, an assigned supplier-development engineer is customary, whereas in other industries, often depending on buyer size, the purchaser and the purchasing team may be the only actors working with the developments of the supplier. The larger buyers and buyer groups are said to have the function of supplier-development engineer in their organizations.

A visual representation of how the supplier may experience the individual actors in supplier development is pictured in Figure 10 below. The figure is based on the descriptions from the Quality and Sales Managers of Supplier E (study four). Again, the representatives of this supplier experiences or describes the most complex supplier-development situation. The focus is the buyer group with the individual buyer group firms (BGF) of which one is the (focused) buyer. The buyer group, the buyer group firms (BGF) and BGF sites are all visualized in the figure. Within this already complex organization, are the individual purchasers with different levels of responsibility: the category purchaser (with an overarching responsibility for the supplier), the responsible purchaser of the BGF, and the local purchasers (connected to either a certain site within the BGF or to new developments, regardless of which they are located at a specific site). The purchasers are all pictured in red, and ‘level of responsibility’ goes from left to right in the figure. Additionally, the BGFs have (a minimum of) one supplier-development engineer (pictured in green) assigned to the supplier.
Figure 10. Individual actors in supplier development, purchasers and supplier-development engineers

The suppliers perceive that the working methods and agenda of the supplier-development engineers and purchasing staff differ based on the individual rather than the firm they represent. This implies that when a new supplier-development engineer or purchaser is assigned to the supplier, the supplier has a limited understanding of what will come next, and the future interaction between buyer and supplier is difficult to anticipate. This is especially problematic when there are frequent changes in supplier development as well as purchasing staff. Changes in buyer staff means that actor bonds (Gadde, et al., 2010) are disrupted, implying that new relationships need to be established, indicating that any ongoing supplier development is at risk as different individual actors can have different ideas of what capability attributes (Ross et al., 2006) of the supplier are important and how they want to utilize and develop those capabilities.

The frequent changes in staff increases the uncertainties of ‘future episodes’, using the terminology of Gadde et al. (2010), but also makes the development at any specific point in time (or episode) less likely as the buyer staff is seen to not take the full responsibility of the developments of the supplier and the relationship with the supplier. A visual representation of the individual actors that changes over time is presented below in Figure 11, again based on the descriptions by the Quality and Sales Managers of supplier E (study four). Like in the previous figure, the purchasers are pictured in red and the supplier-development engineers in green. As the individual actor changes, they are pictured as blue in the figure, whereas when they return to their original color it indicates the new individual is in the same position the coming year. Staff moving between sites, something that happens frequently according to the supplier representatives of Supplier E, is also visualized.
Figure 11. Changes in individual actors over time

To synthesize the experienced supplier development in terms of complexities of many actors: This discussion provides the overall view of supplier development this thesis argues for—that of complexities created by the many actors involved, including firm actors as well as individual actors. There are also indications that the suppliers can experience benefits from being developed by many, as they are being reached by the best practices of many different buyers. Different buyer firms may try to direct the supplier in different directions and the supplier’s responsiveness can be put to test, the demands and requirements may be especially difficult to cater for if the buyer is too prescriptive or too controlling. The individual actors in supplier development affect the day to day operations, as they approach the supplier with different methods and tools, related to their own personal view and knowledge. As the individual actor changes, the content, and structure of the supplier development also changes, making the future interaction between buyer and supplier difficult for the supplier to anticipate.

5.2 Perceived barriers and enablers on different supplier-development abstraction levels

This section builds on the findings of papers one, two and three; the empirical data to support this discussion is found in the respective papers. The discussion is directed towards answering research question two (RQ2). Barriers to and enablers of supplier development are identified on the three
levels of abstraction. Barriers and enablers related to a supplier-development practice are presented in 5.2.1 and 5.2.2 respectively. Barriers and enablers related to a supplier-development program is presented in 5.2.3, and barriers related to the experienced total are presented and discussed in 5.2.4. The identified barriers and enablers are elaborated on further in order to increase an understanding of the barriers and enablers at play and of where and why they appear. In 5.2.5, a final discussion is presented in order to conclude about the barriers and enablers on the different abstraction levels of supplier development.

From the literature review, it can be concluded that suppliers are subjected to or participate in different supplier-development practices (Krause and Scanell, 2002) through more or less systematic and coordinated efforts of a specific buyer. The effort is referred to as the supplier-development program (Hahn et al., 1990; Krause et al., 1998). Building on the empirical findings from this research, the supplier may not be subjected only to one specific supplier-development program, but rather to the supplier development (practices and programs) of multiple actors at a certain point in time and over time. Therefore, what the supplier experiences in terms of supplier development is not only a relationship- or transaction-specific (Li et al., 2012) practice or program, but rather the totality of all supplier-development efforts of the different actors in the supplier’s network of buyers. This is in line with what Gadde et al. (2010) propose. Therefore when looking at supplier development from the supplier’s point of view, it is reasonable to look at what goes on not only in terms of one single practice or one single program, but also to how the supplier experiences all the practices and all the programs in the supplier’s network of buyers. Also, barriers (and enablers) can be related to a specific supplier-development practice or to the supplier-development program between a buyer and supplier. Differing target levels for the same metric used in evaluating the supplier can be perceived as a barrier related to the supplier-development practice performance management as proposed by Forslund and Jonsson (2009), and the barrier lack of trust can be perceived to be related to the supplier-development program (Handfield et al. 2000). Barriers (and enablers) can also be perceived in relation to the experienced total of supplier development from a supplier’s perspective.

The findings and discussion section is structured based on papers one, two, and three and hence the different abstraction levels of supplier development.

5.2.1 Perceived barriers to performance management—A supplier-development practice

Barriers (and enablers) to the supplier-development practice performance management in two textiles industry supply chains are identified in paper one. The supplier development under investigation can be understood as primarily
indirect. However, it is important to note that the performance management process does involve analyzing and acting on the results of the analysis, and whenever actions are taken, they may very well involve more direct forms of joint development work between the buyer and supplier. See Table 7 for a summary of the perceived barriers presented in paper one. (G) and (N) respectively denotes global and Nordic supply chains to show where the barriers are perceived.

<table>
<thead>
<tr>
<th>Barriers related to</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Supply chain interfaces (G)</td>
</tr>
<tr>
<td></td>
<td>Internal competition (G)</td>
</tr>
<tr>
<td>The entire process</td>
<td>Difficulties in developing a collaborative culture (N)</td>
</tr>
<tr>
<td></td>
<td>Lack of trust (N)</td>
</tr>
<tr>
<td></td>
<td>Lack of understanding (N)</td>
</tr>
<tr>
<td>Selecting metrics</td>
<td>Differing metrics within and/or between supply chain actors (G) (N)</td>
</tr>
<tr>
<td>Defining metrics</td>
<td>Difficulties in linking metrics to customer value (N)</td>
</tr>
<tr>
<td>Setting targets</td>
<td>Differing target levels within and/or between supply chain actors (G) (N)</td>
</tr>
<tr>
<td>Measuring</td>
<td>Lack of IT support for data capturing and reporting (N)</td>
</tr>
<tr>
<td>Analyzing</td>
<td>Weak analysis due to differing metrics definitions (N)</td>
</tr>
</tbody>
</table>

*Table 7. Barriers to performance management as identified in paper one*

**Understanding the perceived barriers to performance management**

The barriers are understood to be related to the context, to the performance management process itself (the entire process) and to the separate activities in the process. The context is understood as the business relationship and the supply chain structure where the business relationship takes place, similar to the views of Papakiriakopoulos and Pramatari (2010). The business relationship and supply chain structure are seen as the entities ‘surrounding’ the performance management process, i.e. the context. Other barriers can be seen to be related to the relationship between the buyer and supplier, e.g. lack of trust, lack of understanding and differing metrics within and between supply chain actors, in line with the findings of Forslund and Jonsson (2009) and Handfield et al. (2000). Barriers related to the firm actors have also been identified such as lack of IT support for data capturing and reporting, evident both in buyer and supplier in the Nordic supply chain. This barrier is internal to the actors, in keeping with the findings of Gotzamani and Theodorakioglou (2010) and Handfield et al. (2000), and can be understood to be related to operational tools in line with the findings of Forslund and Jonsson, 2009.

The context barriers *supply chain interfaces* and *internal competition* are found within the global supply chain, and they add complexity to the performance management process as individual actors with differing views are
involved. The actors in the different sourcing organizations have differing views of what level of performance is expected from the supplier; Ross et al. (2006) have noted similar findings though investigating the perceived importance of supplier-capability attributes. The internal competition between different local sourcing organizations in the global retail chain is seemingly the driver of differing metrics within supply chain actors and differing target levels for the supplier’s performance set by central and local sourcing respectively. A barrier on one level (context) is hence seen to give rise to lower level barriers in the specific activities (selecting metrics and setting targets). The context barriers could be seen to relate to the size of the buyer (see e.g. Sancha et al., 2015), and the complexities of such a large organization can be seen to hold steady. Therefore, the (large) buyer size can be understood to add complexity in supplier development in terms of increased number of firms—as well as individual actors (see e.g. Ellegaard et al., 2003) in supplier development.

Looking beyond context barriers, the majority of the identified barriers are found in the Nordic supply chain. The barriers lack of trust and lack of understanding seemingly affect the following steps of the process where communication of e.g. targets is deliberately avoided, neither is there communication of the measured and/or estimated performance. Again, this indicates that higher level barriers affect and give rise to lower level barriers. The case shows evidence of lack of IT support for data capturing and reporting; a manual performance management process is instead performed. Looking to extant literature for guidance, a tentative explanation for this is that the barriers are related to the (smaller) buyer’s size and a subsequent lack of resources (Krause and Ellram, 1997b). The lack of resources at the buyer level could hinder the buyer from running the performance management process efficiently. Lack of resources can be related to low profit margins common in the textiles industry (Bruce et al., 2004).

The sourcing context (see e.g. Busse et al., 2016) is not specifically addressed in paper one, but a possible rival interpretation to that of lack of buyer resources is the fact that the buyer in the global retail chain has a local presence in the sourcing market through its local trading office and the Nordic chain does not. The cooperation (or lack thereof) in the Nordic chain could be argued to stem from linguistic and cultural distance, similar to the findings of Busse et al., 2016. Industry is not seen as the creator of any specific barriers as concluded in paper one; however, the suppliers in the textiles industry are oftentimes said to be developed below average (Wagner, 2006). Judged by the performance management process of this specific Nordic buyer, the supplier in the Nordic supply chain is developed below average in relation to both human and capital support, in line with Wagner’s (2006) proposal. Whether this is an
effect of buyer size and related resources or an effect of the level of supplier development in the industry is difficult to say at this point. What can be noted is that the global retail chain, due to its presence within multiple industries may not show the traditional characteristics of a textiles retailer. Hence industry could explain the low level of supplier development taking place in the Nordic supply chain. The business type (see e.g. Krause and Scanell, 2002) is another factor that could affect supplier development and the related barriers where service firms, including retail firms, are said to rely on competitive pressure to drive supplier improvement. As the global retail chain is running their performance management process with good precision from selecting metrics to analyzing and acting, it cannot be said to rely solely on competitive pressure. The global retail chain rather invests resources and time in the developments of their supplier through performance management, but also from direct involvement (Wagner 2010). The steps of analyzing and acting in the performance-management process can be seen as direct involvement. Therefore, even though the Nordic retail chain does not perform any direct supplier-development practices, the same cannot be said about the global retail chains, and consequently, based on this study, no clear conclusions as to how the business type matters has been drawn.

To synthesize barriers to performance management: Barriers related to context, to the relationship between buyer and supplier as well as internal barriers within the buyer or supplier (e.g. related to operational tools) have been identified. A barrier on one level seems to create lower level barriers. The many supply chain interfaces, with competition between sourcing organizations, give rise to different measurements between the sourcing organizations, as well as differing goals for supplier performance. The lack of IT support can also be seen to give rise to weak analysis.

Buyer firm size is seen to affect the barriers at play for the supplier-development practice performance management; this is also where the two supply chains are clearly different. Complexities are created by the large buyer size, giving rise to barriers that would perhaps not have been expected. The supply chain, with the smaller buyer seems to be negatively affected from a resource point of view and barriers evident from this supply chain can be seen to depend on the smaller buyer size. Based on previous research (Krause and Scanell, 2002; Wagner, 2006), the less developed supplier development and possibly the presence of the many barriers could be explained by the retail as well as textiles industry context (process). Hence, a relatively poor performance management process with many perceived barriers may also be related to industry and business type.
5.2.2 Perceived enablers to performance management—A supplier-development practice

Enablers\(^5\) of the performance management process are presented below in Table 8. (G) and (N) respectively denote global and Nordic supply chain to show where the enablers are perceived.

<table>
<thead>
<tr>
<th>Enablers related to</th>
<th>Enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Collaboration in business processes based upon power (G)</td>
</tr>
<tr>
<td>The entire process</td>
<td>Hierarchical collaboration (G)</td>
</tr>
<tr>
<td>Selecting metrics</td>
<td>Agreed metrics (G)</td>
</tr>
<tr>
<td></td>
<td>Limited number of metrics (N)</td>
</tr>
<tr>
<td>Defining metrics</td>
<td>Metrics dictionaries in simple form (G)</td>
</tr>
<tr>
<td>Setting targets</td>
<td>Shared and specific targets (G)</td>
</tr>
<tr>
<td>Measuring</td>
<td>Good/integrated or at least automatic data capturing and reporting (G)</td>
</tr>
<tr>
<td></td>
<td>Frequent exchange of measurement outcome (G)</td>
</tr>
<tr>
<td>Analyzing</td>
<td>Collaborative improvement actions sharing of action plans (G)</td>
</tr>
</tbody>
</table>

Table 8. Enablers of performance management as identified in paper one

**Understanding the perceived enablers of performance management**

Similar to the barriers, the enablers are found to be context-related, related to the entire process or to the specific activities performed within the process. The enablers’ power and hierarchical collaboration are understood to be related to the context, based on the views of Papakiriakopoulos and Pramatari (2010). Those enablers can however be argued to rather be related to the relationship between the buyer and supplier more in line with the discussion above regarding barriers such as lack of trust. Enablers such as agreed metrics, shared and specific targets and frequent exchange of measurement outcomes can also be seen as being related to the relationship between the buyer and supplier. The enablers limited number of metrics, and metric dictionaries in simple form are related to the buyer in the buyer/supplier relationship, where metric dictionaries can be seen as a firm-specific capability in line with Sancha et al. (2015).

Hierarchical collaboration (Ferreira *et al.*, 2012), where one powerful supply chain partner often controls the collaborative performance management process while the other partner follows, evident from the global supply chain, is enabled by the context-related enabler buyer power. The global retail chain displays the characteristics of the powerful retailer often present in the textiles industry (Bruce *et al.*, 2004). Buyer firm size (Sancha *et al.*, 2015) can be

\(^5\) Though presented as best practices in paper one, the main thesis uses the term enabler as they (the enablers) assist the supplier in achieving the intended developments. Many also have their mirror image presented as a barrier (see 3.4.1 for an elaboration)
argued as at least a partial explanation for this displayed enabler. Through the large buyer’s available resources (Krause and Ellram, 1997b), visible through the IT-support tools they possess, the performance management process is enabled. Hierarchical collaboration can also be understood as an enabler as it enables agreed metrics (defined by one supply chain actor, accepted and followed by the other), metrics dictionaries, shared targets and so forth. All the lower level (tied to the specific activities) best practices could be argued to be enablers of the next step in the process. As the performance management takes place in a partly local context, where the analyzing and acting happens in part locally (supplier and local sourcing) and in part regionally (supplier and central sourcing), the relatively short spatial and linguistic distance and smaller cultural differences (Busse et al., 2016) promotes smoother collaboration compared to if the sourcing had been global or purely regional.

In the Nordic supply chain, a limited number of metrics are seen as a potential enabler; however, this is not leveraged due to above-mentioned barriers.

**To synthesize enablers to performance management:** As with the barriers, enablers are identified in the context, in the performance management process itself and as connected to the different activities within the process. They are seen to be related to the context, the actors and the relationship between the actors. An enabler on one level is seen to affect and support the establishment of enablers on lower levels. Related to enablers of the performance-management process, the large buyer seems to positively affect the enablers at play in the global supply chain. Buyer firm size manifests itself in buyer power that sets the agenda for hierarchical collaboration and steers what goes on in the rest of the activities of the performance-management process. The local sourcing presence of the global retail chain can also be understood to affect the later stages of the performance management process positively.

**5.2.3 Perceived barriers to and enablers of the supplier-development program**

Barriers to and enablers of the supplier-development program of one heavy vehicle industry buyer are identified in paper two. The supplier development includes both indirect and direct supplier-development practices such as performance management and the involvement of supplier-development engineers in improvement efforts. See Table 9 for a summary of the barriers (B) and enablers (E) identified in a local sourcing context as presented in paper two.
Understanding perceived barriers and enablers of the supplier-development program

The barriers lack of long-term goals and agenda and lack of proactive supplier development can be seen to relate to the buyer/supplier relationship, a type of barrier identified in Handfield et al. (2000) as well as in Jonsson and Forslund (2009). The communication-related barriers can also be seen to relate to the interaction and the relationship between the two firms; using the vocabulary of George et al. (2016), they can be seen as organizational. The enabler formalization of the communication is also understood as relating to the relationship between buyer and supplier. The customer attractiveness however is related to the buyer in terms of its attractive features, in keeping with the findings of Routroy (2016). The barriers and enablers experienced and perceived by the suppliers are to a large extent understood to revolve around uncertainties and ambiguities of what will come next as the suppliers experience a lack of direction, drive and agenda for their developments.

The experienced lack of long-term goals and agenda is seen as a barrier to supplier development as the suppliers’ commitment and engagement to the buyer may be negatively affected thereby. In this research customer attractiveness works as an enabler of supplier development as it secures the supplier’s commitment to the supplier-development effort and can therefore be understood to offset the barrier effects to a certain extent. The importance of customer attractiveness is also emphasized by Mortensen and Arlbjørn (2012) underscored by the fact that a supplier is motivated to develop itself toward the most valuable and attractive customers, and as long as the buyer is attractive enough, the supplier is likely to commit to the supplier development sponsored by the buyer. This seems true even as the lack of proactive supplier development...
development is perceived to disrupt the full value potential of the relationship between the buyer and supplier. The attractiveness of the buyer in the case is likely to be explained by the buyer size (see e.g. Sancha et al., 2015) as the buyer represents big volumes and has knowledge and resources the suppliers themselves may be lacking. The customer attractiveness also stems from benefits outside the buyer/supplier relationship itself, created by being a preferred supplier to this buyer, i.e. the competitive edge this may give on the market.

The communication-related barriers—lack of information sharing, lack of feedback and lack of media richness—are all perceived to obstruct the developments of supplier performance and/or capability. None of the contextual barriers—spatial and linguistic distance and cultural differences between buyers and suppliers supposed to obstruct communication (Busse et al., 2016)—is present to any higher degree, yet the lack of communication and information sharing appear to be important barriers for supplier development.

The experienced enabler of supplier-development formalization of the communication can be said to remedy some of the barrier effects of the information- and communication-related barriers. The barriers materialize in a supplier-development context where the buyer sources customer specific products as components for their own final product. This makes product quality critical and the need for deep understanding of requirements, in line with Lascelles and Dales’ (1990) suggestion, and joint problem solving are perceived to be important. The distant communication through portals is not perceived to be enough, rather the personal contact seen as a rich communication medium (Carr and Kaynak, 2007) with many cues for interpretation is required.

To synthesize barriers and enablers of the supplier-development program: The barriers and enablers experienced by the suppliers to a large extent revolve around uncertainties and ambiguities of what will come next as the suppliers experience a lack of direction, drive and agenda for their developments. Barriers and enablers related to the relationship between buyer and supplier are identified based on the findings in paper two. In part they can be seen as organizational, i.e. created by how the cooperation between the buyer and supplier is organized. The customer’s attractiveness based on the buyer’s attractive features is identified as a buyer-internal enabler. The customer attractiveness seems related to the buyer size as the buyer presents big volumes, knowledge and resources. Communication-related barriers are identified, despite small spatial and linguistic distance between buyer and suppliers. The formalization of communication is seen as an important enabler.
5.2.4 Perceived barriers to the experienced total of supplier development

Barriers connected to what is referred to as the experienced total of supplier development are identified in paper three. The phenomenon of being developed by many at a specific point in time and over time is something the suppliers are experiencing. The experienced supplier development consists of both indirect and direct supplier-development practices such as performance management and the involvement of supplier-development engineers in improvement efforts with the weight towards the less involved practices as a few of the suppliers in the focus groups work with assigned supplier-development engineers. Related to the complexity of being developed by many, three barriers are identified that are understood to obstruct the translation of supplier-development efforts into outcomes. The barriers are presented in Table 10 below.

<table>
<thead>
<tr>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>The barrier of contradictory interests</td>
</tr>
<tr>
<td>The barrier of lack of continuity</td>
</tr>
<tr>
<td>The barrier of lost relationships</td>
</tr>
</tbody>
</table>

Table 10. The barriers related to the experienced total of supplier development as identified in paper three

Understanding perceived barriers to the experienced total of supplier development

The many actors in supplier development, as described earlier are firm actors and individual actors alike (Håkansson and Snehota, 1995). The first barrier, that of contradictory interests, regards firm actors in the suppliers’ network of buyers and how they try to direct the suppliers’ strategy and operations in different directions; it also regards the contradictory interests between the supplier and the buyers in the suppliers’ network. Based on the views of Papakiriakopoulos and Pramatari (2010), barriers related to the network of buyers can be seen as a context barrier. The barriers related to lack of continuity and lost relationships primarily stem from the individual actors and their different working methods and agenda. As individual actors change, development starts over again rather than building on what has already been accomplished. Knowledge is lost from the relationship. The barriers can be understood to be related to the relationships between the buyers and supplier and as such to the network context in which the buyer/supplier relationship takes place. Most importantly, the barriers are connected to the individual actors in the relationships and their respective agenda for supplier development.
In line with the findings of Holmen et al. (2013), the suppliers in this research experience competing demands from different buyers or customer accounts. This seemingly prohibits the supplier from responding to certain buyer needs. This research proposes that any diverse customer requirements may create contradictory interests that are difficult for the supplier to cater to. However, the risks associated with contradictory interests between buyers may be higher when they appear within the same buyer group. Not being able to cater to certain buyer groups’ requirements may put the supplier’s future business with the buyer group at risk. Adaptation to certain requirements may affect the supplier’s adaptability towards others (Jahre and Fabbe-Costes, 2005); this is exemplified by Supplier E (study four). The supplier cannot cater to all requirements from all buyers interested in making changes to their operations. Instead, the supplier makes changes on the surface in terms of what information and how it is reported to the buyers in accordance with their requirements, etc.

The barriers are identified in a local-regional sourcing (see e.g. Busse et al., 2016) context, however, the geographical sourcing context has not been seen to explain the experienced barriers. The heavy vehicle buyers and buyers in many of the other industries represented are operating in a global sourcing context where the purchasing practices of the buyers could be referred to as ‘global sourcing practices’ (with a cost efficiency/cost effectiveness focus) where the most attractive offer from a supplier (in terms of price, quality and service) is the major supplier selection criteria with little focus on e.g. innovation in line with the views of Brandes et al. (2013). The supplier development taking place, focusing on performance management and direct involvement practices in terms of on-site work etc. are, according to Batson (2008), customary practices in the heavy vehicles and automotive settings represented in the research. The heavy vehicles and related industries with their OEM buyers with internal product development abilities (Bard et al., 2010) are, according to the studied suppliers, strongly influenced by what they refer to as “American business practices”. With American business practices, the supplier representatives mean e.g. the frequent turnover of staff to avoid any relationships on a personal basis between buyer and supplier and a focus on lowest price rather than lowest total cost. This view of the OEMs is shared by Brandes et al. (2013), who state that the OEMs may need to consider the relationships with suppliers that over the years have become more arm’s length and are not expected to last forever. Evidence of similar purchasing practices was revealed to be present in other buyer firms as well, indicating that this may be a rather general purchasing practice, reaching far outside the heavy vehicles and automotive industries.
For the case supplier (supplier E, study four) specifically, there are many interfaces to individual actors which in themselves create difficulties in managing relationships on a personal level. The focus group suppliers also acknowledge complexities with larger buyers in terms of receiving responses and getting things done, as it is difficult to find the right person in the organization to make the necessary decisions, whereas the suppliers in the focus group have easier access to the right buyer staff of the smaller buyers, indicating that buyer size (Sancha et al., 2015) matters. The additional complexities created by the changes in individual actors over time can also be argued to further the difficulties in creating and maintaining relationships on a personal basis, something the suppliers experience to obstruct any development effort under way.

To synthesize barriers to the experienced total of supplier development: The supplier’s own network of buyers and differences in their requirements affects the barriers at play. Contradictory interests stem from the network itself; therefore, this research concludes that the supplier’s network of buyers may be seen as a growing ground for barriers. The perceived barriers, lack of continuity and lost relationships, are related to the relationship—or lack thereof—between the suppliers and their buyers, i.e. they appear in the interface between the suppliers and their respective buyers. Large buyers seem to add complexities as the many different interfaces create difficulties in forming personal relationships, which is perceived to be necessary for successful supplier development. The addition of frequent buyer staff changes incurs added difficulties to creating and maintaining personal relationships and is seen to obstruct any development effort under way.

5.2.5 Viewing barriers and enablers on the different levels of supplier development abstraction simultaneously

This section builds on the previous sections of the discussion and presents a synthesis of the barriers and enablers on the different levels of supplier development abstraction. It aims to show what types of barriers and enablers have been identified and the similarities and differences between the different abstraction levels. For barriers, investigated at the three abstraction levels, two ways of understanding them are offered.

Different types of barriers and enablers have been identified on the different abstraction levels of supplier development. The barriers and enablers are related to context, to the relationship/interface between buyer and supplier and to the firm actors themselves. The barriers and how they relate to context, relationship or actor and the abstraction level of supplier development where they have been identified is presented in the table below (Table 11).
The majority of the identified barriers are found to be relationship or interface related; this is also where barriers have been identified for all the abstraction levels of supplier development, barriers related to context and to the (firm) actors have also been identified.

Another way of understanding of the barriers is to look at them based on their similarities (common denominators) and differences. The barriers related to context carry a lot of similarity. Those barriers seem to pertain to contradictory interests within and between supply chain actors. Within supply chain actors, the multiple supply chain interfaces and internal competition creates complexities; mixed messages in terms of the required developments reach the supplier. The sheer size of the buyer(s) can be seen to create those complexities. Between supply chain actors, the supplier’s network of buyers creates similar complexities and resulting contradictory interests, as the different buyers in the network may see different current and future development paths for the supplier. The barriers are identified when investigating the abstraction level practice and experienced total. See Table 12 below to find the barriers and their common denominators.

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Barrier related to</th>
<th>Abstraction level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply chain interfaces</td>
<td>Context</td>
<td>Practice</td>
</tr>
<tr>
<td>Internal competition</td>
<td></td>
<td>Experienced total</td>
</tr>
<tr>
<td>The barrier of contradictory interests</td>
<td></td>
<td>Practice</td>
</tr>
<tr>
<td>Difficulties in developing a collaborative culture</td>
<td></td>
<td>Practice</td>
</tr>
<tr>
<td>Lack of trust</td>
<td></td>
<td>Program</td>
</tr>
<tr>
<td>Lack of understanding</td>
<td></td>
<td>Experienct total</td>
</tr>
<tr>
<td>Differing metrics between supply chain actors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties in linking metrics to customer value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differing target levels between supply chain actors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak analysis due to differing metrics definitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of long term goals and agenda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of proactive supplier development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of information sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of rich communication mediums</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The barrier of lack of continuity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The barrier of lost relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differing metrics within supply chain actors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differing target levels within supply chain actors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of IT support for data capturing and reporting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 11. Context, relationship and actor related barriers*
The barriers that arise in the interface between the buyer and supplier can be grouped together based on their similarities. One group regards the lack of long term agenda for supplier development, and affects the supplier’s knowledge and understanding of what can be expected of the future interaction between the buyer and supplier. The barriers are identified on abstraction level ‘program’ and ‘experienced total’. One group seems to pertain to the lack of relationships between individual actors, identified when investigating practice and experienced total. Another group of barriers relate to the lack of communication and information sharing, affecting the day to day operations of the supplier, where the lack of access to necessary information complicates the operations. Those barriers are identified on practice and program level. Related to relationship/interface one more group can be identified; this group relates to the lack of efficiency in the supplier development practice as such. The barriers seem to stem from the barriers of contradictory interests (between supply chain actors), i.e. as presented earlier a barrier on one level seem to create lower level barriers. Looking at the barriers in this way highlights the questions of whether the lack of long term agenda for supplier development is one of the reasons behind the lack of individual relationships between individuals, which in turn promotes the lack of communication and information sharing obstructing the efficiency of the supplier development practices implemented.

The barriers that arise within the firm actors themselves are divided into two distinct groups. The first group relate to the efficiency of the supplier development practice implemented, same as above (presented in the same box in Table 12, above), and can again be seen to stem from the barriers related to

<table>
<thead>
<tr>
<th>Barriers related to</th>
<th>Barriers</th>
<th>Common denominators of barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Supply chain interfaces</td>
<td>Contradictory interests within and between supply chain actors</td>
</tr>
<tr>
<td></td>
<td>Internal competition</td>
<td>Lack of long-term goals and agenda for supplier development</td>
</tr>
<tr>
<td></td>
<td>The barrier of contradictory interests</td>
<td>Lack of long-term agenda for supplier development</td>
</tr>
<tr>
<td></td>
<td>Lack of proactive supplier development</td>
<td>Lack of relationships between individual actors</td>
</tr>
<tr>
<td></td>
<td>The barrier of lack of continuity</td>
<td>Lack of communication and information-sharing</td>
</tr>
<tr>
<td></td>
<td>Lack of trust</td>
<td>Lack of efficiency of the supplier-development practice</td>
</tr>
<tr>
<td></td>
<td>The barrier of lost relationships</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difficulties in developing a collaborative culture</td>
<td></td>
</tr>
<tr>
<td>Relationship/interface</td>
<td>Lack of information sharing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of rich communication mediums</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of understanding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Differing metrics between supply chain actors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difficulties in linking metrics to customer value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Differing target levels between supply chain actors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weak analysis due to differing metrics definitions</td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td>Differing metrics within supply chain actors</td>
<td>Lack of supporting operational tools</td>
</tr>
<tr>
<td></td>
<td>Differing target levels within supply chain actors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of IT support for data capturing and reporting</td>
<td></td>
</tr>
</tbody>
</table>

Table 12. Common denominators for barriers
contradictory interests (*within* supply chain actors). The barrier lack of IT support for data capturing and reporting has been identified as a barrier related to lack of operational tools to support the supplier-development effort. This is understood to be related to the smaller buyer’s lack of *resources* for supplier development.

The sourcing geography (local or regional sourcing) has not been shown to affect the barriers at play, whereas the local sourcing presence of the global retail chain in paper one is proposed to support the activities in the later stages of the performance management process. Despite not being presented as such in the paper, sourcing geography can be seen as an enabler of the performance management. The same is valid for buyer power, which can be seen as an enabler of the whole performance management process. Enablers related to context, to the relationship between actors and to the individual actors have been identified as presented in the table below (Table 13).

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Enabler related to</th>
<th>Abstraction level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration in business processes based upon power</td>
<td>Context</td>
<td>Practice</td>
</tr>
<tr>
<td>Hierarchical collaboration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreed metrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited number of metrics</td>
<td>Relationship/interface</td>
<td>Practice</td>
</tr>
<tr>
<td>Shared and specific targets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic data capturing and reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent exchange of measurement outcome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborative improvement actions sharing of action plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalization of the communication</td>
<td>Program</td>
<td></td>
</tr>
<tr>
<td>Metrics dictionaries in simple form</td>
<td>Actor</td>
<td>Practice</td>
</tr>
<tr>
<td>Customer attractiveness</td>
<td>Program</td>
<td></td>
</tr>
</tbody>
</table>

*Table 13. Enablers related to context, relationship and actor*

The majority of the enablers are identified as being connected to the interface between buyers and suppliers. This is similar to the findings for barriers. Enablers have been investigated only related to practice and program. The enablers are understood to relate to *buyer power* or *customer attractiveness*, *collaboration*, i.e. joint development work, *formalization* of the communication and to *resources* in terms of *supportive operational tools*. The buyer power/customer attractiveness work as enablers as they motivate the supplier to adhere to/take part in the supplier development with the buyer. The collaboration and joint development work opens for actual development of supplier supplier performance but also supplier capability. Formalization is seen to lower uncertainties in supplier development and it creates opportunity for shared views and understandings of e.g. metrics and performance follow up. Buyer resources are likely a contributor to customer attractiveness.
5.3 Revisiting the supplier-development definition

Building on the experiences gained through this research process and hence on the suppliers’ experiences and perceptions of supplier development, this thesis argues that there is a need to revisit the supplier development definitions in the extant literature in order to incorporate the dual perspective of both buyer and supplier. This section dissects the definitions of supplier development in extant literature; the definitions are understood to hold six different dimensions. The dimensions derived from the definitions are discussed based on the experiences and views of the suppliers gained through this research. This section aims to create a definition of supplier development that builds on extant literature yet takes the perspective of the supplier into consideration.

5.3.1 Dissecting the supplier-development definitions and incorporating the supplier’s view

The definitions of supplier development in the extant literature can be seen to comprise the following dimensions: type of activity, expected outcome, specified timeframe, supplier-development orientation, targeted suppliers and the beneficiary of the developments. The definitions may differ in scope in each dimension. The dimensions will now be elaborated on further.

1) The first dimension regards the type of activity described as supplier development in the literature. The definitions in the extant literature differ as to whether it is ‘any activity’ (e.g. Krause and Ellram, 1997a; b), ‘formal activities’ (Hartley and Choi, 1996) or ‘cooperative activities’ (Watts and Hahn, 1993) between buyer and supplier that is supplier development.

What the suppliers in this research experiences as supplier development is not far from Krause and Ellram’s (1997) any activity; the suppliers may not regard it as supplier development, however. Many examples of ‘increasing the demands and requirements of the supplier’ have been presented as the buyers’ supplier-development practice of choice.

Looking at supplier development from the supplier’s point of view, proposes that certain supplier-development practices such as putting the suppliers to competition, or merely increasing the demands or requirements of the supplier, are not to be seen as supplier-development practices at all. As presented earlier, the suppliers are also questioning this type of practices in terms of it being supplier development. The supplier’s perception of what supplier development ought to be is instead focusing on the more cooperative dimensions and the buyer’s direct involvement in the development work.
2) The second dimension regards the expected outcome from the supplier development. The definitions focus on supplier performance and/or supplier capabilities, stressing that performance (short-term improvement in e.g. cost, delivery quality, etc.) and capability (long-term improvement in e.g. managerial, operational and innovation capability) are both central aims of supplier development (Handfield et al., 2000; Krause and Ellram, 1997a; b; Sako, 2004; Wagner and Krause, 2009). Most definitions include both, and even when capability is not specifically mentioned (Watts and Hahn, 1993; Krause et al., 1998), continuous improvement is mentioned, which can be seen as just another way of saying capability.

3) The third dimension in the supplier-development definitions regards the specified timeframe of the supplier-development efforts and outcome. This relates to whether the efforts undertaken are long-term (Watts and Hahn, 1993; Trent and Monczka, 1999) or unspecified (Krause and Ellram, 1997a; b). The timeframe in terms of effects can be said to be both short and long-term as the definitions stress both performance (short term) and capability (long-term). In other words, it is the view of this thesis that time frame can be seen in two ways.

As performance and capabilities will change only gradually, supplier-development efforts must take place over an extended period of time to be successful (Busse et al., 2016). Watts and Hahn (1993) also emphasizes the long-term dimension of the effort, whereas no such timeframe for the effort is explicit in the definition by Krause and Ellram (1997a; b). What is explicit, however, is the time frame of the expected outcome of supplier development. In this research, the suppliers see the need for long-term efforts both in terms of business relationships with the buyer and in terms of the engagement in the supplier-development effort itself. The continuity in supplier development is, however, often perceived to be missing. Also, the view is that the continuity of the supplier-development effort is disrupted when buyer staff is exchanged, resulting in desired developments of performance and capability not occurring. Efforts that shift from one focus to another are rather understood to burden the suppliers instead of benefitting them.

4) The fourth dimension pertains to the supplier-development orientation, meaning whether the definition has an ‘outcome’ (Krause and Ellram, 1997; Hartley and Choi, 1996) and/or ‘process’ orientation (Krause et al., 1998). Most definitions focus on the outcome and do not specify through what means the supplier performance and capability improvement is supposed to take place. Krause et al. (1998) presents that it takes place through the ‘identification and measurement’ of the supplier performance, and hence in
their definition measurement is central to supplier development and the resulting developments of the supplier.

From the supplier’s perspective, measurement and follow up are important and integral parts of the buyer’s supplier-development work. The delivery precision, quality level and different certifications together with passing the supplier audits is said to be what has rendered the suppliers in study four their position as preferred suppliers. Hence the measurement and follow up is important for supplier development, both as a supplier-development practice and in terms of receiving other types of more direct supplier development and support. The studied suppliers receive monthly feedback on their performance in terms of the supplier scorecard where the performance measurements are presented. The scorecard is a part of their monthly or quarterly meetings with the buyer and may be a signal for development work, either jointly or for the supplier.

5) The fifth dimension regards the targeted suppliers, whether it is ‘any supplier’ or suppliers ‘not meeting expectations’ (Routroy and Pradhan, 2013) that are targeted by the supplier-development effort. Not meeting expectations indicates a focus on suppliers where capabilities are lacking or performance outcome is less than expected. Implicitly many of the definitions hold that lacking supplier performance or capability (Busse et al., 2016; Krause and Ellram, 1997a; b; Krause et al., 2000) is the reason for supplier development. Krause et al. (1998) do differ between strategic and reactive supplier development where strategic supplier development is not remedial but takes place in order to secure the competitive position of the buyer long-term. The interpretation made here is that supplier development is not necessarily only for suppliers not meeting expectations but could be for any supplier important for the future success of the buying firm. It is important to note that as buyers are putting efforts into the developments of the supplier and as buyer resources are not unlimited (Holmen et al., 2013); either current capabilities or performance are lacking or the buyer perceives a risk that future capabilities or performance will be lacking. Hahn et al. (1990) differ between new or potential and current suppliers; the focus in this research is the current suppliers. The experiences of the suppliers in this research are that the supplier-development effort of the buyers is primarily focused towards them when their performance is not meeting expectations. The suppliers however express the desire for a different type of involvement and a more proactive supplier development.

6) The sixth and final dimension of the supplier-development definitions as identified in this research is the beneficiary of the developments, and it regards whether it is specified to be the buyer (Krause and Ellram, 1997a; b) or
whether it is not specified at all (Watts and Hahn, 1993). The frequently used definitions (Krause and Ellram, 1997a; b; Krause 1997; Krause et al., 2000) specify the beneficiary of the development efforts as the buyer, possibly explained by the buyer-centered research in supplier development (Mortensen and Arlbjorn, 2012; Nagati and Rebolledo, 2013).

This thesis argues that in order to be successful, the benefits from supplier-development efforts also need to be perceived and experienced by the supplier. The benefits created through supplier development are in many instances controlled by the buyer through the evaluation of supplier performance and the improvement direction set by the buyer, and this may, according to Ellegaard and Ritter (2006) demotivate the supplier. The suppliers in paper two perceive that the supplier development brings benefits, both in terms of their actual developments but also in terms of it leading to benefits in relation to other existing and potential customers. This is understood to favor the suppliers’ commitment towards the supplier-development effort. In line with this finding, it is argued that the supplier needs to benefit from, or at least perceive itself as a beneficiary of, the supplier-development work as it promotes the supplier’s commitment to the effort.

In Table 14 the supplier-development definitions presented in chapter two are dissected in relation to the different supplier-development dimensions.

<table>
<thead>
<tr>
<th>Source of Definition</th>
<th>Type of activity</th>
<th>Expected outcome</th>
<th>Specified timeframe</th>
<th>Supplier development orientation</th>
<th>Targeted suppliers</th>
<th>Beneficiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hahn et al. (1990)</td>
<td>systematic</td>
<td>capability</td>
<td>Effort: #</td>
<td>Outcome: long term</td>
<td>outcome</td>
<td>new and existing buyer and supplier (discussion)</td>
</tr>
<tr>
<td>Watts and Hahn (1993)</td>
<td>cooperative</td>
<td>capability</td>
<td>Effort/Outcome: long term</td>
<td>outcome</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Hartley and Choi (1996)</td>
<td>formal</td>
<td>performance and capability</td>
<td>Effort: #</td>
<td>Outcome: long term</td>
<td>outcome</td>
<td>existing (implicit)</td>
</tr>
<tr>
<td>Krause and Ellram (1997a; b)</td>
<td>any</td>
<td>performance and capability</td>
<td>Effort: #</td>
<td>Outcome: long term</td>
<td>outcome</td>
<td>&quot;not up to standard&quot; (implicit) buyer</td>
</tr>
<tr>
<td>Krause et al., 1998</td>
<td>any</td>
<td>performance and capability</td>
<td>Effort: #</td>
<td>Outcome: long term</td>
<td>process and outcome</td>
<td>#</td>
</tr>
<tr>
<td>Trent and Mončika, 1999</td>
<td>conscious</td>
<td>performance and capability</td>
<td>Effort: #</td>
<td>Outcome: long term</td>
<td>outcome</td>
<td>key supply chain members (existing) #</td>
</tr>
</tbody>
</table>

Table 14. Dissecting the supplier-development definitions

If the dimension is not mentioned in the definition, nor clearly stated in the related text, ‘not applicable’ is presented in the table, symbolized by #.
To synthesize the supplier-development definition and incorporate the supplier’s view: Based on the above discussion, the definition that this thesis proses to better take the supplier’s point of view into consideration is: “Supplier development is a cooperative effort between a buying firm and its suppliers over time in order to improve the short- and/or long-term performance and/or capability of the supplier for the benefit of the buyer and supplier alike.”

This definition, as any definition would, has implications for how supplier development is to be perceived and includes some aspects of the investigated phenomena while excluding others. The definition emphasizes the cooperative effort, which the suppliers in this research experiences to a certain degree, but also expect more of in order to increase the value potential of the supplier-development relation. The definition emphasizes the long-term effort, which this thesis argues is a prerequisite for supplier-development success. Long-term relates to the buyer-supplier relationships, to the supplier-development effort as such but also to the continuity of the supplier-development agenda; this is also where the suppliers in this research perceive a gap between what they experience and how they perceive supplier development out to be. The definition also emphasizes the supplier as a beneficiary where the minimum level is that the supplier perceives itself as a beneficiary of the supplier development. If this is not the case, there is a risk that the supplier’s cooperation is lost. This thesis claims that the question of the beneficiary is especially important. The suppliers in this research do, to a certain extent perceive themselves as beneficiaries of the supplier development efforts promoted by the buyer(s). However, when the supplier development goes in waves from one focus to another, without clear logic to the supplier, the suppliers rather experience a gap between what is and what ought to be as their workload increases without clear benefits for themselves nor, in their view, for the buyer.
6. Conclusion, implications and suggestions for future research

In order for supplier development to be successful, the importance of understanding the suppliers’ experiences of supplier development and their perceptions of barriers and enablers cannot be overstated. This section provides a concluding discussion and presents implications for research and practice. Suggestions for future research paths are also presented. The conclusions are presented in relation to the two parts of the purpose: 1) increased understanding of the supplier’s experiences and perceptions of supplier development and 2) understanding of the related barriers and enablers.

6.1 Supplier’s experiences and perceptions of supplier development

This research builds on previous research in supplier development that focuses primarily on the buyer. When focusing on the supplier, certain aspects of previous research can be recognized; the content of the supplier development in terms of follow up on supplier performance as a supplier-development practice in itself, and as a stepping stone for more direct supplier development, has been seen also in this research. The suppliers’ point of view has however created additional insights into how suppliers experience and perceive the supplier development they are subjected to.

The findings of this research indicate that the buyers’ level of involvement and the structure and content of the supplier-development program are dependent on the individual actor(s) in the buyer/supplier relationship and their related area of expertise. It is therefore not understood to be the buyer firm or their overall goals for supplier development that steers the supplier-development agenda. This ‘individual actor dependence’ risk creating uncertainties in terms of the future development agenda for the suppliers. This is also why the proposed definition of supplier development emphasizes the long term supplier development, both in terms of effort and agenda. The findings also indicate that the suppliers do not perceive ‘any activity’ with potential effects on the supplier’s performance and capability developments as supplier development; therefor the cooperative efforts are emphasized in the proposed supplier development definition. The findings indicate that increased levels of formalization (e.g. through formalized communication or meeting structures) is understood to lower uncertainties in supplier development as it sets
expectations and creates the opportunities to give and receive information in a structured manner. It can be seen as a ‘governance mechanism’ in that it secures adherence to the supplier-development agenda in both buyer and supplier, and this thesis suggests that increased formalization of supplier development makes the supplier development less dependent on the individual actor.

The suppliers’ experiences and perceptions has given focus to the complexities of many actors involved in the developments of the supplier which are not clearly addressed in supplier-development research with a buyers’ focus. The findings of this research indicate that supplier development is not just relationship-specific practices or programs—from the supplier’s point of view, it is rather the totality of the supplier development they are subjected to that sets the stage for their developments. It is in relation to this experienced total that they need to manage and/or adhere to different requirements for their developments. The complexities relate to firm actors and individual actors alike, and the findings indicate that contradictory interests between firm as well as individual actors may affect the supplier-development. This may very well have explanatory power for the sometimes lackluster results of a supplier-development effort.

Based on those first conclusions, this research proposes the following:

- The experienced content of supplier development builds on the indirect practice of performance management on which more direct involvement practices seem to be based.
- The experienced content and structure of the supplier-development program is understood to be dependent on the individual actor, rather than the firm the individual actor represents.
- Complexities related to many actors involved in supplier development (experienced total) at a specific point in time and over time is a perfect growing ground for barriers.
- A higher level of formalization of the supplier-development program is understood to reduce the uncertainties in supplier development.

6.2 Barriers and enablers in supplier development

Barriers and enablers have been identified on the three supplier-development abstraction levels of practice, program and experienced total as investigated in this research. Barriers related to the context, the relationship or interface between the actors and related to the actors themselves have been identified, i.e. three broad types of barriers have been identified. For the supplier-
development practice performance management, context-related barriers and enablers, barriers and enablers related to the performance management process itself and barriers and enablers related to the specific activities in the process are identified. Barriers and enablers on ‘higher level’ e.g. context are seen to create lower level barriers and enablers. Identified barriers are e.g. (multiple) supply chain interfaces, internal competition and difficulties in developing a collaborative culture. Identified enablers are e.g. buyer power and hierarchical collaboration, i.e. collaboration based on buyer power. Related to the supplier-development program, barriers such as lack of long term goals and agenda and lack of information and feedback are identified. Formal structure of the communication and customer attractiveness are seen as enablers of the supplier-development program that assist in achieving development. The barriers and enablers identified in relation to supplier-development programs evolve around communication and the need for human interaction; systems are not seen as solutions to performance or capability-related problems. On the highest level of abstraction the experienced total, the barriers of contradictory interests, lack of continuity and lost relationships are identified, revolving around the strategic agenda of buyer and supplier and relationships between individual actors.

The context related barriers relate to contradictory interests of supply chain or network actors. The supplier’s network of buyers has hence been concluded to affect the barriers at play through its potential creation of conflicting interests between actors. The interface or relationship related barriers pertain to lack of long term agenda for supplier development, lack of relationships between individual actors, lack of communication and information sharing, and finally lack of efficiency in the supplier-development practice. The actor related barriers also relate to the lack of efficiency in the supplier-development practice and to the lack of supporting operational tools.

Buyer firm size is proposed to affect barriers and enablers through 1) the creation of complexities, 2) buyer firm power and customer attractiveness and 3) the lack of or the availability of resources. It is important to note that through the creation of complexity firm size (large) may affect supplier development negatively. This research has therefore drawn attention to whether there is an optimal buyer size where the positive effects of scale are present without the necessary complexities of a very large firm. The findings of this research give some support to previous research insofar as the industry and firm type have been seen to possibly affect the supplier development present in the buyer/supplier relationship. Increased investments in supplier development and involvement in the same is perceived more from the heavy vehicles buyer than from the textiles and other industry buyers present in this research. The heavy vehicles case is also focused on suppliers delivering components for
assembly into the buyers’ own products, whereas the textiles buyers source products for resale though in the case of customer specific products. Taking into consideration that managers and employees move between industries and firm types and can be expected to undergo similar education and training programs, it is however possibly becoming harder to argue that industry and firm type are actually strong influencing factors in regard to supplier development. Instead practices can be expected to move across industries and firm types and rather be related to the available resources of the buyer firm and the type of products sourced in the buyer/supplier relationships.

Sourcing geography has not been shown to have a clear impact on barriers. It is proposed to have some positive effects when the sourcing is local; this still supports that the factor is relevant and needs to be considered in supplier-development research.

Based on this conclusion this research proposes the following.

- The types of barriers and enablers in supplier development are proposed to be context related, relationship related or actor related.
  - The context related barriers relate to contradictory interests of supply chain or network actors.
  - The interface or relationship related barriers pertain to lack of long term agenda for supplier development, lack of relationships between individual actors, lack of communication and information sharing, and finally lack of efficiency in the supplier-development practice. The lack of efficiency is also present on the actor level.
  - The additional actor related barrier is the lack of supporting operational tools.

- Barriers and enablers seem to give rise to other barriers and enablers respectively. Enablers are seen to offset some of the barrier effects.

- Firm size affects barriers and enablers in supplier development.
  - Large buyer size affects barriers in supplier development through the subsequent complexities it may bring.
  - Large buyer size affects enablers of supplier development through the subsequent buyer power/customer attractiveness it brings.
  - Small buyer size affects the barriers in supplier development through the subsequent lack of resources.
6.3 Defining supplier development taking the suppliers’ experiences and perceptions into consideration

Based on this research, a supplier-development definition that reflects also the suppliers’ point of view is presented. “Supplier development is a cooperative effort between a buying firm and its suppliers over time, to improve the short- and/or long-term performance and/or capability of the supplier for the benefit of the buyer and supplier alike”. This definition emphasizes three aspects that are not clearly stated in what seems to be the most cited definition of supplier development (Krause and Ellram, 1997a; b). It emphasizes the cooperative effort. The indirect practices with low buyer involvement experienced by the suppliers in this research and discussed under the umbrella of supplier development are not, in their own right, perceived as supplier development by the suppliers. The definition further specifies that the supplier development is an effort over time. ‘Over time’ is supposed to convey the message of continuity that, based on this study, seems to be frequently missing in supplier development. The final piece of this definition that requires attention is the question of the beneficiary. The supplier needs to perceive itself as a beneficiary of the supplier development; otherwise, there is a risk that the supplier’s cooperation will be lost.

6.4 Implications and limitations of this research

6.4.1 Implication for research and practice

The focus on the suppliers’ point of view has created implications for research. It has put focus onto the three different levels of abstraction through which supplier development can be studied and understood. Barriers and enablers are shown to be mirror images of one another in many instances where lack of formalized communication can be seen as a barrier and its presence an enabler, suggesting that an open mind towards the concepts is required. A definition of supplier development has been developed, taking the dual perspective of buyer and supplier clearly into consideration. It centers on the notions that seem central to supplier-development success from the supplier’s point of view. This definition has implications for how supplier development can be understood and addressed in research as well as practice.

Though this research has focused on the suppliers in supplier development, there are practical implications for buyers. In order for supplier-development success to occur, supplier development needs to be long-term, not only in regard to the effort itself, but also related to the continuity of the specific supplier-development agenda. This has implications for buyer firms in their
design of their supplier-development efforts and the supplier-development organization set to deliver it. Also, in order for supplier development to be successful, the suppliers need to perceive themselves as a clear beneficiary of the supplier development. This research has shown how complex the supplier development may be in the eyes of the suppliers—having this understanding as a buyer may create increased awareness of and understanding for failures and successes in supplier development. If the supplier-development content and structure is to be more in line with a long-term goal for the developments of the supplier, this research suggests that increased formalization of supplier development and the turnover of supplier-development (and purchasing) staff are important issues to focus on as a buyer. This also directs interest towards the development of common working routines for the supplier-development organization to be able to run a development agenda over time. The identification of common denominators for barrier: the contradictory interests, the lack of supplier development agenda, the lack of relationships between individual actors, and lack of communication offers practitioners a lens through which they can analyze their own supplier development in order to identify and mitigate barriers.

The understanding that the supplier’s network of buyers affects what is possible to accomplish through supplier development is an important implication of this research for buyers and suppliers alike. This research suggests that the buyers invest time in understanding how different buyers’ needs and requirements contradict or complement one another. This research also suggests that suppliers should be aware of and manage their customer base through the proper understanding of the buyers’ needs and requirements and the alignment with the strategic agenda of the supplier. This has clear implications for practice.

6.4.2 Limitations

This research, as any research would, has certain limitations. The results were not created through some large-scale, survey-type method to secure transferability across contexts (industry, firm types etc.); this can be seen as a limitation. On the other hand, it does provide reasonably deep descriptions of the setting where the supplier development and barriers to and enablers of supplier development take place, giving any reader of this thesis the opportunity to reflect on the transferability of the research results. The research is based on suppliers of components, sub-assemblies and simple finished products, i.e. not complex, strategic items for which the supplier may be in a completely different power situation in relation to the buyer. This may have affected the outcome of the research as it may very well have shown a different level of involvement in supplier development from the buyers’ perspective. The suppliers in the different studies represent different industries
and manufacture different types of products (sub-assemblies and final products), but mostly customer-specific products, giving some indications that the results may not be very specific, which could indicate that the findings are relevant across different contexts. Could the fact that the majority of suppliers are Swedish or Sweden-based have affected the findings of this research in such a way that it will not be transferable across the Swedish borders? Both buyers and suppliers involved in this research can be seen to act in a local as well as international context, which supports being able to transfer the research results across the borders. In terms of the proposed definition believing that only Swedish suppliers need to perceive themselves as a beneficiary of the developments or perceive the importance of long term cooperative efforts seems far-fetched.

The increased understanding of barriers and enablers in this research has stopped at identifying them, somewhat describing them, classifying them into different types as related to context, to the relationship or to the actor, and attempting to somewhat explain their presence. It would have been possible to go further and to look into different management strategies to mitigate or leverage them. How far the research work has progressed in terms of creating understanding can always be seen as a limitation. Would it not have been possible to do more?

The lens of ‘the network’ is used, and through it the complexities in supplier development are perceived. A specific lens always has benefits but also limitations. Other lenses could have been used in order to try to understand the experiences and perceptions of the supplier. The one chosen for the purpose of this thesis however allows for, and supports with tools to describe and hence understand the complexities at play. The picture painted in this research is merely one picture of the complexities the suppliers experience. There could have been other. However, as in any project, there is a time and a place to wrap things up and conclude the deal. Thus, this is where this research ends. However, before this thesis comes to a final stop, let us look at some possible extensions and paths for continuing the research in supplier development taking the perspective of the supplier into consideration.

### 6.5 Suggestion for future research paths

This research has contributed to research as well as practice in showing that supplier development can be perceived on three different levels of abstraction based on the experiences and perceptions of the supplier. Taking the path of ‘the experienced total’ further could render a better understanding of the successes and failures of a specific buyer’s supplier-development effort. The investigation of suppliers’ perceptions on how the different efforts of a buyer
complements or contradicts efforts of other buyers taking place simultaneously would be an interesting endeavor for further research. It would require direct access into the core of the supplier’s organization and might hence be a challenging yet fruitful path to follow in order to further understand the complexities in supplier development. Investigating the suppliers’ mitigation and leveraging strategies could increase our knowledge, not only of how the efforts contradicts or complements one another, but also what it means in terms of supplier actions, and supplier-development outcome or lack thereof.

Understanding complexities through other lenses or through the same lens with a sharper focus is another potentially fruitful path. As many of the complexities seem to regard the personal relationships (or the lack thereof), lack of responsibility for the relationship, etc., going deeper into the social interaction of actors comes to mind as a view through which the complexities could be focused even further.

Investigating the barriers further focusing on how they relate to, and stem from one another is another research opportunity that comes to mind. Is there a relationship between conflicting interests, lack of long term agenda, lack of relationships, lack of communication and information sharing, and lack of efficiency in the supplier-development practices? If so, what does it look like?

Expanding this research to take into consideration other types of suppliers, e.g. those that could be referred to as strategic suppliers, can give much needed insights into whether the findings of this research are valid under differing supplier-development conditions. With more strategic products under scrutiny, would the content and structure of the supplier development differ? Would the experienced barriers and enablers differ? Building a survey instrument that captures the findings and tests them in different contexts gives the possibility of further investigating the generalizability of the results.

Finally, making the studies of supplier-development dyadic, allowing for more than one actor’s point of view, would give new insights to what supplier development is and how it is to be understood. Looking further into the intention (of the buyer) vs. the experience (of the supplier) would be an interesting yet challenging path to pursue. Also, as with the first suggestion for further research, access close to the core of the buyer’s supplier development and the supplier’s operations would be required.
Epilogue—A final note before closing this thesis

Although the majority of the suppliers encountered in this research have been positive towards ‘being developed by a buyer’, not all suppliers have agreed to the fact that it is favorable to have buyers trying to develop the suppliers’ performance nor their capabilities. It is not necessarily self-evident that it is the buyer’s job to develop supplier capabilities. When the buyer chooses to become involved in supplier development, the buyer is aiming to secure its short- and/or long-term supply needs. What the buyer is looking for is an increased output at the present time and overtime to fulfil a certain need. If the buyer manages to specify clearly what they want in such a way that the supplier is able to deliver to it there should be no explicit need for the buyer to become involved in the capability developments of the supplier. There is risk associated with reaching too far into the supplier’s organization, and this may result in a push back. It should be remembered that the supplier is an independent firm with their own strategic agenda. In relation to one of my initial questions of whether supplier development is forced onto suppliers by the strong and powerful buyer, there is no simple and straight forward answer. Yes, the supplier development is promoted and to a large extent controlled and steered by the buyer; on the other hand, it cannot be said to be simply forced onto the suppliers. The majority of the suppliers encountered in this research do welcome the initiative of the buyers; they even ask for more. Regardless, it would be fair to say they wish for a more structured and clear supplier-development agenda communicated to and understood by the suppliers.
List of References


Boston Consulting Group (2013). Majority of large manufacturers are now planning or considering “Reshoring” from China to the U.S. Retrieved March 10, 2017


Chidambaranathan, S., Muralidharan, C. and Deshmuk, S.G. (2009). "Analyzing the interaction of critical factors of supplier development using Interpretive Structural


Machinery in Europe, 2014: Medium and heavy trucks in Europe, 2014


Appendix 1 Interview guide—Performance management in textiles/retail supply chains

Note 1. The order to delivery process (red arrow below, in a made-to-order-process) is a common process with a number of sub processes and many actors that influence the performance.

Order to delivery process and sub processes
**Note 2.** The performance (for example delivery service, costs, and environmental effects) in the order-to-delivery process is important and need to studied/measured to be improved. We use the term “the performance management (PM) process” and focus on the activities that occur place in the interface between companies.

---

**Note 3.** All actors, (customer, supplier, freight forwarder) could be participating in the PM-process/measurements/improvements. Research around this has in the best cases involved a customer and a supplier but rarely a freight forwarder/transportation companies.
How would you describe the size/scope of your logistics performance management system? Company internal? Including customers? Suppliers? Transportation companies? The customers’ customer? The sub-supplier of your supplier? How often do you re-visit (consider) the scope? Do you see any trends?

One PM-activity at the time

Strategy
Studies show a gap between strategy and measurement systems in practice, while theory of course speaks in favor of a logical connection between the corporate strategy/logistics strategy and the measurement system. From where do you receive strategic input to your logistics measurement system. How, and how often? Do you perceive any problems? Any opportunities? Do you see any trends?
Selecting measurements/performance variables
We have seen in our previous research of Swedish production companies that delivery precision is the dominating measurement in the order-to-delivery process.

What measurements are critical for you, i.e. what measurements is your logistics system built upon for your own operations and for the specific supplier/customer? What do you see as order qualifiers/order winners? How do you communicate about those measurements/performance variables? How often? Through contracts? What problems do you perceive? Opportunities?

Examples of measures from literature:

Delivery service: Lead time length
Delivery precision (reliability/on time delivery/time keeping)
Delivery security (right amount, undamaged)
Service level/fill rate (ability to deliver from stock)
Flexibility/responsiveness (handling of change)
Return/claims
Management of express orders
Information/delays
Cost
Cost of transportation
Tied up capital
Safety stock/stock levels
Capacity utilization
Environment
Emissions (CO₂, other)
Fill rate (transportation)

Define measurements/Performance variables
We have seen big problems in defining measurements and have found that the actors need to take many aspects into consideration (for example where in the process to measure) to be able to see the same results. Most often this is not done, but the different actors measure in different ways and are often not aware of this or why it happens.

Do you discuss different ways of defining the logistics measurements with the supplier/customer? Who initiates? How often? Do you have common definitions? Do you have support systems/the possibility to adapt your measurements to different ways of defining the measurements? Is this contracted? What problems/opportunities do you see?
Example
Delivery precision:
- Measurement object (order, order line, piece, value, etc.)
- Place of measure (Loaded at supplier, available at customer site, at point of consumption)
- Time unit (week, day, hour, window)
- Comparison (related to wished or confirmed time)

Setting goals
Swedish companies are normally good at setting goals, but the goals are normally not synchronized with their supply chain partners.
How and how often are goals set for the critical logistics measurements? Are the goals shared with the supplier/customer? Contracted? What problems and opportunities do you see?

Measuring
Our research has shown that companies, to a large extent, work manually with measuring and creating performance reports.
Is data collected automatically? Does it create good reports? How often do you create reports? Do you have common reports with supplier/customer? How often are they transferred? What are the problems and opportunities?

Analyzing/acting
This is an important activity in the PM process if any improvements are to take place. There is a big variation in the practical applications, but it is common due to different definitions/measures not being able to measure any improvement in the work.
What type analyses do you do with the results of the measurements? Together with supplier/customer? How often? What type improvement work can you see as a result of the measurements? How often is the supplier/customer a part of the improvement work? How is/are cost/benefits shared? Problems and opportunities?

Other
Trends—going back—going forward?
Who/what drives the development? Who/what holds it back?
What type of research is needed?