LEVEL OF INVOLVEMENT IN RELATIONSHIPS WITH SUPPLIERS
"A Comparative Case Analysis of ABB M&G, Scania CV & Volvo CE"

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ABSTRACT

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Title: Level of Involvement in Relationships with Suppliers "A Comparative Case Analysis of ABB M&G, Scania CV & Volvo CE"

Research Question: How does ABB M&G, Scania CV and Volvo CE perceive either close or arms-length relationships with their suppliers?

Purpose: This study is a description and analysis of different strategies used in relation to high and low involvement in supplier relationships by comparing three manufacturing firms based in Sweden. The research was carried to identify different criteria used for selection of suppliers and why either close or arms-length relationships are encouraged over the other.

Method: The study was carried out using a comparative case analysis drawing on the qualitative data, where the authors interviewed key personnel in ABB M&G, Scania CV and Volvo CE, to relate to theories for a conclusive analysis.

Conclusion: The three companies have both close and "arms-length" relationships which clearly help them decrease dependencies on certain suppliers. They all have both high and low levels of supplier relationship involvement. The level of involvement was dependent on the importance attached to the component or material needed, the higher the importance, the higher the involvement, the lesser the importance the lower the involvement. All in all, the analysis showed that the three companies have seen the benefits of both relationship orientations, however, they all made it clear that close relationships is their preferred orientation when it comes to key components where it is necessary to be highly involved.

Key Words: Global Sourcing and Purchasing, Supply Management, Supplier Relationship Strategies, Arms-length, Close Relationships, Supplier Relationship Orientations, High and Low Relationship Involvement.
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1 INTRODUCTION

Nowadays, it has become increasingly important for firms to strategically acquire the materials and services that will improve their abilities to meet the needs of their customers. This is seen in how most manufacturing corporations put high emphasis on the role of supply-chain management. Most literature seems to point towards the upcoming trend to reduce the supplier base; however there are instances where firms are more comfortable with increasing it. In this regard, the authors carried out a comparative study on three international manufacturing firms based in Sweden, namely; ABB M&G (Asea Brown Boveri Motors & Generators), Scania CV (Scania Commercial Vehicles) and Volvo CE (Volvo Construction Equipment).

This study has uncovered different choices made in how suppliers are selected, managed and the level of involvement attached to it. As Baily (1987:3-4) states, the direction of purchasing and supply is changing as factors which include, conformance quality standards, just-in-time approaches to material availability, long-term relationships with fewer suppliers and a win-win approach to negotiations instead of more traditional adversarial or win-lose approach, continue being upgraded and are part of the changes in the way procurement is managed. However, in highly competitive world markets, the atmosphere is not static but dynamic, in this aspect, corporations need to consistently update and revise their purchasing objectives. Coming up with solutions for old products when they are discontinued does not give an organization any competitive edge. “Proactive, rather than reactive, dynamic rather than static, is the way in which the purchasing role is now conceived. Better quality, in more suitable quantities, just in time for requirement, from better suppliers, at prices which continue to improve, are the sort of aims set by the dynamic purchasing function today.”

1.1 BACKGROUND

Different researchers have come up with different models on supplier relationship management. A multinational firm is likely to be faced with high uncertainties regarding different key suppliers, later on how to manage them. Aggressive competition in the current global business environment is pushing most firms into coming up with innovative ways in achieving long term competitive advantage, this means all parts of the organization must be well integrated. For the sake of this study, the part the authors focused on is how international manufacturing firms manage their relationships with their core suppliers and the importance attached to these relationships as well as the benefits of having either arms-length or close relationships. A lot of theories regarding supply-chain management have come up of late. How should suppliers be organized and managed in order to achieve the optimal flow of the right materials for different parts of the manufacturing process in a global firm? When is it appropriate to increase the supplier base and when is it not? If the supplier base is decreased the relationships with the few will be close and the opposite is also true when the supplier base is increased.
1.2 RESEARCH QUESTION

How does ABB M&G, Scania CV and Volvo CE perceive either close or arms-length relationships with their suppliers?

1.3 PURPOSE

This study is a description and analysis of different strategies used in relation to high and low involvement in supplier relationships by comparing three manufacturing firms based in Sweden. The research was carried to identify different criteria used for selection of suppliers and why either close or arms-length relationships are encouraged over the other.

1.4 TARGET AUDIENCE

This research was initiated to give an academic insight to fellow business students with an interest in matters of supply relationship management. However, it can also serve as a tool to management of corporations the study was carried on, in order for them to understand their supplier relationships from a theoretical perspective and hopefully help manage them.

1.5 DELIMITATIONS

This thesis would have been more conclusive if the suppliers’ perceptions were also induced as it would have given a clearer picture of the business relationships. However, due to the time factor, we were only able to get the buyers perceptions of their suppliers.

1.6 RESEARCH DISPOSITION

The authors started off by reading theories from which the research problem was developed, thereafter looked for empirical evidence to connect for a conclusive analysis, conclusion and recommendation. Figure 1.6, is an outline of the study disposition.

Fig. 1.6 Source: authors own creation inspired by Lindhult & Liljefors’ Triangle of Analysis (Lecture on Problem formulation process 14^{th} February, 2012)
2 METHOD

The authors constructed this study based on theories and empirical data, where the empirical data was drawn from interviews the authors conducted as well as website information on the companies chosen. The theories are based on literature, where books and scientific articles regarding supplier relationship management and purchasing strategies were reviewed.

2.1 CHOICE OF TOPIC

The inspiration for choosing this particular topic arose when the authors conducted a bachelor thesis on corporate innovation management strategies, where the supplier relationship issue in the three companies chosen was brought to light and became interesting for future study. The interest was further enhanced when the authors studied an advanced level course on Marketing Systems, where managing business relationships was the objective.

2.2 CASE STUDY

The authors conducted a case study on three different multinational companies namely; ABB M&G, Scania CV and Volvo CE to get an in-depth study based on a real life situation. These companies were chosen due to their global establishment in the manufacturing industry and exposure to different business relationships for their operations.

Research based on cases in business studies are mostly useful when the problem under investigation is not easy to study out of its ordinary setting and also when the concept as well as the variable that is being studied is not easy to quantify. Case study is an account of an administrative condition and frequently involves collecting primary data through sources which includes private interviews, verbal reports and observations. It also involves collecting data through sources such as financial reports, files, as well as budget and operating statements (Ghauri & Gronhaug 2010:109). This view is shared by Yin (1994:1) in his statement that, “Case studies are the preferred strategy when how or why questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context.”

In relation to the above, Bryman and Bell (2011:59-60) mentioned that "The basic case study entails the detailed and intensive analysis of a single case. The case is an object of interest in its own right, and the researcher aims to provide an in-depth elucidation of it." Winstanley (2009:162) also noted that “A case study is an in-depth look at a particular person or particular situation and often involves using a range of methods for collecting empirical data such as questionnaires, sampling and observation.” Furthermore, Fisher (2010:204) explained that with a case study, one gives a well explained account of the topic under investigation ranging from the information collected. However, the practical aspect is about putting into use such information that helps in gathering all the difficult issues that organizational life is all about.
2.3 COMPARATIVE STUDY

The authors carried out a comparative study on three different multinational companies namely; ABB M&G, Scania CV and Volvo CE. In doing so, we compared the three companies’ supplier relationship orientations from which we came up with a conclusive result as we noted down differences between them.

In quoting Bryman & Bell (2011:63) who states that multiple-case studies are to a large extent undertaken for the purpose of comparing the cases that are incorporated. As such, allowing the researcher to make comparisons and contrasting the results developing from each of the cases. This encourages the researcher to consider what is exclusive and what is common among the cases and mostly promotes theoretical evidence on the results. Bryman & Bell further point out that in essence a multiple case study arises whenever the number of cases being studied is more than one. This is a popular research design in business studies which normally looks at two or more organizations as cases for comparison, however on certain occasions people could be used as cases.

2.4 DATA COLLECTION

The authors used a qualitative interpretative method in conducting this study. In citing Fisher (2010:72), qualitative interpretative method is the type in which a researcher precedes the interview with the broadest view on the direction the conversation might take as such may encourage the one being interviewed to decide the direction of discussion. Supporting this notion is Ghauri & Gronhaug (2010:104-105) who refer to qualitative research as “a mixture of rational, explorative and intuitive, where the skills and experience of the researcher play an important role in the analysis of data.”

We infused both secondary and primary data in this study. The secondary data incorporated past research papers, literature reviews and company websites. Where as the primary data incorporated qualitative semi-structured interviews with relevant key personnel in the three companies the study was based on. The distinction between secondary and primary data is made below:

2.4.1 Secondary Data

In order to gain information around our research problem as well as to better understand the research area, the authors started off by collecting secondary data by reviewing earlier studies on supply management. The studies reviewed included scientific articles, business books and websites.

According to Winstanley (2009:85), secondary data is the kind that was previously collected and recorded by other researchers. It includes the use of journal or news paper articles, books, etc. Ghauri & Gronhaug (2010:94 -96) have listed down both advantages
and disadvantages for secondary data among others, the main advantage is that secondary sources help the researcher to formulate and understand the research problem as well as broaden the base from which scientific conclusions can be made. This makes the verification process faster and enhances the reliability of the information and conclusion. However, one of the main disadvantages is that the data is collected for other purposes and may not completely fit with the researcher’s problem. Hence, the need for the researcher to identify their study area; what they know about the topic and where extra information is needed. The following gives a summary of databases and websites used in reviewing some of the secondary sources:

**Databases & Websites**

Ghauri & Gronhaug (2010:51) point out that a practical approach in the early stage of a task is by exposing oneself to a range of sources that have dealt with the topic at hand. This includes reviewing journal articles, reading textbooks as well as discussions with experts. Table 2.4.1 is a summary of databases and websites visited to access scientific articles regarding the topic at hand.

<table>
<thead>
<tr>
<th>Database/Website</th>
<th>Topic</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerald</td>
<td>Business</td>
<td><a href="http://www.emeraldinsight.com/">http://www.emeraldinsight.com/</a></td>
</tr>
<tr>
<td>Google Scholar</td>
<td>Business</td>
<td><a href="http://scholar.google.se/">http://scholar.google.se/</a></td>
</tr>
</tbody>
</table>

Table 2.4.1 Summary of Database & Websites
(Source: authors own creation)

**Key Words:**

Since the topic of interest for this study is supplier relationship management, the authors used the words supply management in searching for articles and books on the subject. To get a wider view, the authors also incorporated words like global sourcing and purchasing, supply management, supplier relationship strategies, arms-length, close relationships, supplier relationship orientations, high and low relationship involvement etc. For concrete results, the keywords were combined throughout the search for articles and books.

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**2.4.2 Primary Data**

Since the authors could not only rely on secondary data to answer the research problem, we decided to collect the data that was relevant to our study by interviewing key personnel in the companies the research was carried out, as well as retrieved information from their websites and company publications. The interviews were semi-structured and included email, telephone and face-to-face. The authors started off by sending research proposals via emails, which were followed by phone enquiries on how the study was going to be conducted and which areas the authors were mainly interested in. Having gone over those aspects, dates for face-to-face interviews were then agreed upon. It was helpful for the authors to carry out face-to-face interviews with the respective respondents as this brought out more flexibility on the theme. Thereafter,
follow up interviews were carried out via email and telephone for clarity and accuracy. According to Fisher (2010:175) semi-structured interviews are simple as the interviewer is engaged in an informal discussion with the interviewee regarding a specific topic of concern. The interviewer in this case always has an agenda to be reminded of the most important aspects or areas that need to be covered by the interviewee. Semi-structured interviews give the interviewee the flexibility to answer questions in a rational or wise manner.

The main advantage for primary data according to Ghauri & Gronhaug (2010:51), is that it is collected for the actual problem at hand, as such more consistent with the research questions and objectives. In agreement to this, Winstanley (2009:86) points out that the kind of data that is collected by researchers themselves is primary. It consists of interviews, observations, documentation, summaries, etc and is the data that is used to carry out an analysis of a study. Ghauri & Gronhaug (2010:51) also noted that the main disadvantage is that it is time consuming and costly, because it is challenging to find key people willing to cooperate and answer questions for the research.

**Interview Process**

The authors started requesting for collaboration with the three companies in February 2012, by sending out research proposals on the topic at hand through contacts that we had made from an earlier study (bachelor thesis). These were shortly followed by telephone calls to ensure that the proposals were received as well as to emphasize the importance. Since the topic at hand was not in line with the earlier contacts’ areas of expertise, the authors were then referred to the key personnel in the right positions, to collaborate with.

The authors then prepared an interview guide (see appendix) based on the conceptual framework to help gather the right data needed to analyze and conclude the study. The guide consisted of 20 questions that helped in the process. The first face-to-face interview was carried out with Scania CV on the 17th of April 2012, followed by Volvo CE on the 6th of May 2012, whereas the interview with ABB M&G and the second one with Volvo CE were on the 11th of May 2012.

The authors interviewed two respondents at Volvo CE and one at ABB M&G and Scania CV. This is due to the fact that, after interviewing one respondent at Volvo CE, the authors felt the need to carry out another interview due to the magnitude that Volvo CE covers in their purchasing operations. After transcribing the face-to-face and telephone interviews, the authors sent the scripts to the interviewees for clarity and accuracy before including them in this study. All the interviewees responded in good time.
Interviews

The benefit that interviews give is the flexibility in providing the researcher to direct the dialogue in accordance with unanticipated important information which might come up during the process (Winstanley, 2009:145). In order to avoid misquotations, the authors recorded all the interviews by using digital recorders to safeguard against any kinds of technological problems, we also jotted down important information. The authors used a uniform interview guide with the chosen companies for a fair analysis and authentic conclusion. We were and remained neutral throughout this process as issues concerning business relationships could be sensitive and for this reason we avoided being bias.

Interviewees

We carried out interviews with Tobias Grimerö, ABB M&G’s Local Division Supply Manager in Västerås, Tom Björklund, Sourcing Manager Global Purchasing Parts at Scania CV in Södertälje, Peter de Mander Volvo CE’s Global Core Manager as well as Niclas Carlevad Volvo CE’s Project Buyer in Eskilstuna. These respondents were selected based on the positions they hold in these companies, which are related to the topic at hand. In other words we used snowball sampling, which Fisher (2010:184) identifies as one in which the interviewer connects to the interviewee through personal contacts who could be in positions to identify the suitable personnel to interview based on the topic in question.

Table 2.4.2 presents a summary of the interview schedule;

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Date &amp; Time</th>
<th>Respondent</th>
<th>Designation</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB M&amp;G</td>
<td>11-05-2012 (08:25am-09.05am)</td>
<td>Tobias Grimerö</td>
<td>Local Division Supply Manager</td>
<td>Västerås, ABB - Motors &amp; Generators</td>
</tr>
<tr>
<td>Scania CV</td>
<td>17-04-2012 (11.15am-12.25pm)</td>
<td>Tom Björklund</td>
<td>Sourcing Manager Global Purchasing Parts</td>
<td>Södertälje Scania CV</td>
</tr>
<tr>
<td>Volvo CE</td>
<td>06-05-2012 (18.00-19.05) 11-05-2012 (14.00 -15.00)</td>
<td>Peter de Mander Niclas Carlevad</td>
<td>Global Core Manager Project Buyer</td>
<td>Eskilstuna Volvo CE</td>
</tr>
</tbody>
</table>

Table 2.4.2 Summary of Interviews (Source: authors own creation)
3 THEORETICAL REVIEW

This section introduces theories on supply management and more specifically on models of arms-length and close relationships.

3.1 SUPPLY CHAIN MANAGEMENT

In their view of supply chain management, Fawcett et al., (2007:8) described it as the “design and management of seamless, value-added processes across organizational boundaries to meet the real needs of the end customer.” The processes must be managed well inside the focal firm before they can be managed effectively up and down the supply chain. This implies that within any company, it is the responsibility of different functions to make decisions that will determine the amount of value created. The responsibility of the supply management function is to coordinate the upstream supply base, finding the right suppliers and building the right relationships with them.

Eltantawy (2008:152-3) cites Goffin et al., (1997) and Wagner (2003), who mentioned that supply management encompasses “organizing the optimal flow of high-quality, value-for-money materials or components to companies from a suitable set of innovative suppliers.” Some major responsibilities of a supply management task include management of the supplier base, which are the choices of suppliers and their validation, supplier development which is the long-term efforts of a business to improve the performance of its suppliers as well as supplier integration which means bringing together internal resources with those of the firms major suppliers (Antonette et al., 2002; Wagner, 2003 cited in Eltantawy 2008:153).

Most companies are striving for economies of scale by outsourcing the activities of manufacturing and logistics to contract manufacturers, intermediary service providers and vendors. The outcome of this is the expansion of the supply chain by means of additional intermediaries and inter-organizational relationships than previous. As the supply chain becomes more difficult, the efficient flow of information as well as materials among organizations within the chain becomes more critical. For this reason, it is vital to know how to accomplish flourishing effective relationships involving these organizations in the chain. This is proper for joint venture and also for transactional low involvement relationships, to evaluate present supplier relationships and determine the main factors that influence fulfillment which might guide manufacturers or dealers to inquire and adjust the ways of dealing with suppliers, resulting in enhancing relationship satisfaction in the long-run (Jonsson & Zineldin, 2003:224).

3.2 GLOBAL SOURCING

Global sourcing according to Das Handfield (1997) cited in Christopher et al., (2011:69) has an increasing strategic importance for firms whose aim is to compete and source globally. Christopher et al., also cites Monczka and Trent (1991: 3) who state that global sourcing is “The integration and coordination of procurement requirements across
worldwide business units, looking at common items, processes, technologies and suppliers.”

Dobler & Burt (1996:292) have mentioned that a firm’s approach to international sourcing progresses from a reactive to a proactive mode. In the reactive mode to source internationally, a company responds to any opportunities in the market where a good or service that is sourced and produced internationally usually becomes the target, hence being purchased. This point is in line with Pressey et al. (2007:283) who state that strategic purchasing calls for the purchaser to assume a much more proactive role in convincing suppliers to provide the required needs.

3.3 STRATEGIC PURCHASING

Reality shows that corporations lie in the middle of networks of relationships, which have an effect on how far they can go, as such these networks become an important source of competitive advantage. This entails that the success of a firm’s product or service to a large extent depends on the complementing assets as well as actions of other parties (Chesbrough & Teece 1996:72).

A study that was carried out by Johnson, (1999:14) as a result of the increasing importance of interfirm relationships (IFR) in firm strategy and strategic planning, shows among others one managerial implication, that in order to appreciate the strategic integration benefits, the firm must develop the right type of interfirm relationship. The study also reports that there is a possibility of positive outcomes in IFR. To be specific, the research findings have suggested that dependence, whether by choice or necessity, gives a platform for strategic integration to be developed. Secondly, along with dependence, strategic integration is also encouraged with certain positive relationship characteristics. These findings imply that IFRs displaying flexibility and durability are likely exposed to become strategically integrated. Third, strategic integration, meaning, the individual organization’s use of the liaison as a strategic asset and competitive tool, brings an economic payoff for the individual organization. As such, strategic integration brings about enhanced economic incentives for the firm.

The ways in which companies plan, implement, evaluate as well as control the strategic and operating decisions to purchase and direct every activity and function in this regard, headed for any opportunity that is reliable with their capability in accomplishing enduring goals is strategic purchasing (Carr & Smeltzer cited in Pressey et al., 2007:283). Among other models, one interesting model that the Industrial Marketing & Purchasing (IMP) Group (1982:391) came up with is the purchasing strategies and supplier relationships model. The authors distinguished between the buyer’s problem solving strategy and the buyer’s transfer strategy. Purchasing strategies were classified with respect to the buyer’s exploitation of the supplier’s general and adapted abilities. Four problem solving strategies and four transfer strategies were proposed as presented in figure 3.3.
a. **Low Direct Costs** - A strategy used when all appropriate aspects of the buying company's problem linked to the price and to the cost of the exchange. As such the purchasing company will try to buy from the cheapest and will not pay any special attention to the quality or technical assistance. The vital part of this purchasing strategy is that the buyer is free to change suppliers whenever there is a price difference. It is useful when the buying firm's needs are standardized and there is little or no advantage gained from adapting the product. The buyer is not dependent on individual suppliers.

b. **Low Indirect Costs** – This strategy is useful when there are substantial indirect costs connected to the purchase. The indirect costs are in the buying firm's own production or handling operations. The indirect costs can be reduced if the purchasing firm gets the supplier to adapt its product. In this case, the costs of the purchasing firm are likely to be more influenced by the effectiveness of the cooperation with the supplier they chose to buy from than the initial characteristics of the offering involved. The more effective the co-operation the harder it is for the buyer to change its supplier. Hence the buying firms handling issues are connected with developing the relationship in such a manner that its indirect costs are decreased. This encourages the supplying firm to develop long-term relationships with the buying firm.

c. **External Specialists** – This strategy entails that a purchasing firm seeks suppliers that are specialized in their fields. The buying firm has problems that are difficult to resolve, due to, for instance, advanced or complicated production process or advanced products. In addition, its own marketing strategy might be that of a specialist, as such, in need of experts as suppliers. Suppliers are henceforth assessed according to their overall abilities. Such suppliers are not easy to change, despite not having made any supplier adaptations. The problems are first of all, due to the fact that there are likely to be few specialists and secondly, due to significant investment involved when suppliers and buyers are getting acquainted to each other. The availability of suppliers with this type of expertise will be of crucial importance in relation to ‘make or buy’ decisions.
d. **Supplier Development** – This strategy involves integrating the supplier's resources with those of the buying firm. This could be due to the fact that the purchasing firm might not have adequate resources to cover all the fields that are vital to it. As such, it has to obtain these from outside, but the resources must be infused if they are to be effectively used. After developing this type of relationship it is very difficult and costly to change suppliers. Part of the most important handling problems are finding means in which to co-operate so that information exchange between the parties is made easier and less costly. The relationship maintenance costs can be extensive, hence important for it to be well organized. As such, for this strategy to work there is need for high technical competent suppliers in possession of satisfactory organizational abilities.

Organizational purchasing as defined by Baily (1987:4-31) is “the process by which organizations define their needs for goods and services, identify and compare the supplies and suppliers available to them, negotiate with sources of supply or in some other way arrive at agreed terms of trading," make contracts and place orders, and finally receive, accept and pay for the goods and services required."

From the survey conducted by Carter & Narasimhan (1996:7), it is noted that firms are realizing the importance of suppliers in possession of established manufacturing and technological capabilities. The demands for customization and the need for “quick response” in markets that are constantly changing, plays a big role in influencing firms to realize the strategic function played by suppliers and supply management in achieving a sustainable competitive advantage. Carter & Narasimhan also mentioned that the strategic view of purchasing and supply management is that it should be linked to the market and the customer, which would give headway to the expansion of its “reach” from the suppliers to the ultimate customer.

According to Carter & Narasimhan (1996:7) lean manufacturing insinuate that purchasing and supply management covers a wider range of activities than “traditional” buying does, it includes issues like, “supplier qualification, certification, and development, as well as strategic alliances, management of just-in-time deliveries, and closer coordination of inventories and material flows worldwide." The authors also pointed out that purchasing and supply management will progressively emphasize more on four other important areas: (1) a *product focus* by concurrent engineering and quality assurance; (2) a *process focus* by integrating with other organizations using electronic interchange of product and manufacturing process data; (3) a *market focus* by benchmarking and facilitating a firm’s marketing efforts via Total Quality Management (TQM) and customer satisfaction initiatives; and (4) a *customer focus* using quality function deployment. These activities’ character implies that the strategic reach of purchasing and supply management is on the rise. The more the firms outsource the more the need for coordination, communication, planning and control of interaction between them and supplier organizations.
The survey data collected by Carter & Narasimhan (1996:8), explains that external and internal incorporation drifts will increasingly become stronger with time. Consequently, a larger part of what used to be carried out internally will have to be done externally. Management of external organizations as such entails larger dependence like the use of compatible planning and data systems, information technology (IT) as well as the better need for sourcing strategically and managing supplies.

3.4 RELATIONSHIP INVOLVEMENT WITH SUPPLIERS

A survey result collected by Hausman (2001:615) showed that the effects of a successful relationship could be visible in terms of cooperation, and adaptability, quality of performance, satisfaction and durability of the relationship. A combination of trust, commitment and relational orientation on both sides leads to success. The preceding success factors are major contributors to building a successful relationship, aiding firms endure internal and external problems that might threaten the relationship and offset the effects of any contradictory goals or needs. There is need for each partner to show they are committed and trustworthy for a relationship to last.

Campbell (1997:8) notes that, as management is selecting business partners, they should pay extra attention to the competitive environment their trading partner is being faced with, as well as their corporate culture, scope of the relationship, plus the interpersonal relations of people involved. When in a relationship, these qualities can become stable or not, “depending on whether the relationship is characterized by weak or strong mutuality norms”. The weaker the mutuality norms the higher the uncertainties and the stronger the mutuality norms the lower the uncertainties, it is important to be attentive of the benefit of the norms.

Relationships as Ford et al., (2011:15-18) mentioned, "Are a mixed blessing" in that a company's relationship with its suppliers, customers or others are assets to it and at the same time a burden. The success or failure of every company's relationship is seen in how well it handles and manages them, as they constitute the outline of connections as well as the common nurturing of behaviors in due course involving their customers, suppliers or other businesses. In line with this Ford (1980) suggests that relationships in business-to-business (B2B) markets, develops eventually and to put its process into consideration, there needs to be a procedure to carefully manage it in order to gain the most excellent and potential value from them (Cited in Ford, 2002:7).

Several companies are gradually realizing that involving suppliers in developing new products could be useful, in making regards to the costs, time as well as quality of new products that are associated with developing them. As a result, suppliers are increasingly becoming involved in developing projects of their customers' and this participation might vary from giving slight suggestions in product design, for instance to make efficient the manufacturability of components in order to be accountable for the whole development, design and production of specific parts or sub-assembly.
Particularly regarding finished products that consist of parts from various suppliers, involving them might add to the complexity to manage development projects. An important issue in certain situations is determining the kind of involvement manufacturers must have with different suppliers that might be incorporated simultaneously in specific development projects (Wynstra & Pierick, 2000:49-50).

A study carried out by Vonderembse & Tracey (1999:33) on supplier criteria and involvement used by manufacturing companies, indicates that firms are using supplier selection criterion in building and strengthening their selection processes more efficiently in their relationship with suppliers. They also involve suppliers in improving decision making regarding designing products and continuous improvement capabilities. Such practices aid firms in enhancing communication, decision making improvements, knowledge sharing and also in upgrading supplier and manufacturing performances. In line with this, a survey carried out by McGinnis & Rafeekh (1999:43) showed that involving suppliers in developing and improving processes could contribute to firms' competitive advantage.

### 3.4.1 Arms-length Relationships (Low Involvement)

Relationships between buyers and suppliers play a vital role in any firm’s ability to respond to dynamic and unforeseen change. The more restrictive a relationship is the more difficult it will be to achieve flexibility and the more lenient, the more risk of opportunism presented. Arms-length transactions in general entail low trust levels and minimal collaborations (Hoyt & Huq 2000:750-764).

In relation to Hoyt, Ford et al., (2011:79) refer to the low involvement approach as one in which suppliers are considered to be somewhat efficient producers of matching inputs. As such the relationship requires limited coordination, adaptation and interaction. There are no adaptations made in either the product or service, hence baring very minimal resource ties. The activity links as well as the actor bonds in low involvement relationships are also weak, owing to the fact that the order processing and shipments are standardized and there are restricted interactions between individuals of both companies, because the focus is restricted to sales and purchasing alone. Low involvement relationships have limited coordination, adaptations and interaction.

Burgess et al., (2006) in Hornibrook et al., (2008:791) pointed out that arms-length relationships are considered to be suitable for simple, commodity type products. As cited in Dyer et al., (1998:57) Michael Porter describes arms-length model of supplier management as being the goal in purchasing “to find mechanisms to offset or surmount these sources of suppliers’ power...purchases of an item can be spread among alternate suppliers in such a way as to improve the firm’s bargaining power.” Dyer et al., further mention that the key implication of the “arms-length” model for purchasing strategy is for the buyers to purposely keep suppliers at “arms-length” and avoid any form of commitment.
3.4.2 Close Relationships (High Involvement)

The kind of relationship according to Ford et al., (2011:80-81) that is probably the most vital one for a company is high involvement. Such a relationship is focused on various options in purchasing competence, diverse observation of supplier functions as well as the nature of the relationship. Most companies are becoming more dependent on the resources acquired from external suppliers, hence coordinating their activities with them in their operations. The necessity to coordinate requires adaptation of certain activities involved and also the commitment to invest resources by the parties involved. Interdependencies arise in such relationships, making it impossible for customer’s to change suppliers regularly. Companies that have close relationships with their suppliers do not optimize price in the resources they get from them in any deal. As an alternative, they look forward to improve their operations for long term benefits through the use of these resources from such suppliers in more efficient ways.

A survey carried out by Vonderembse & Tracey (1999:33) in which the extent to how far supplier selection criteria as well as supplier involvement in manufacturing firms was investigated, shows that implementing supplier selection criteria and involving suppliers has a positive impact on performance.

Furthermore, Ford et al., (2011:86) mentioned that relationship with a single supplier have the tendency to add significantly in the company’s performance, hence making it a key resource. For that reason, a buyer’s supplier base that is well managed is its most important asset putting into consideration all its other relationships. The supplier base has considerably decreased with time and the three main reasons for this are;

i. **Greater attention to high-involvement relationships** has changed many companies’ fundamental purchasing approach to their purchasing from multiple sourcing to single sourcing, for the purpose of benefiting from supplier relationships as far as cost reduction and development are concerned. Since these relationships are resource-demanding, there is need for the supplier bases to be reduced.

ii. **The extended reliance on system-sourcing**, when companies outsource more of their functions they have fewer activities to focus on, as such, tend to be assemblers of components and systems produced by other specialized firms. As assemblers they assign a few ‘systems-suppliers’ to be answerable to the collective procedures of different operations, but increasingly develop to product development and design. This is a substantial reduction in direct transactions and relationship management for the customer.

iii. **The consolidation of purchasing often labeled “one-stop shopping”** by engrossing the sourcing of numerous items to a single supplier, the buyer reduces the amount of relationships to manage and in turn gains from the economies of scale.
Relationship Portfolio

More and more, customers strive to put together objective portfolio of consistent, beneficial and economical suppliers. In order to achieve this, such customers need to be more involved in managing external production and also build up new suppliers than compare bids or selecting the cheapest (Baily, 1987:157).

The perception behind relationship portfolio is that various buyer relationships of the company symbolize a significant and most expensive valuable asset acquired. A fundamental aspect in managing portfolios is the ability to locate appropriate supplier criterion to handle issues concerning resource distribution. Numerous suppliers distribute their resources on the basis of customer relationship criterion that are not apparent or precise (Ford et al., 2011:65-66).

In their study on portfolio and different supplier interfaces, Wynstra & Pierick, (2000:51) explain that supplier involvement portfolio is aimed at providing support to set priorities with regards to supplier’s involvement in development projects for new products. In order for it to be carried out, it requires utmost support in management capacity, which includes time and money spent to communicate or co-ordinate, whilst making the best possible use of suppliers’ expertise.

3.5 UNCERTAINTIES

In any business atmosphere as the IMP Group (1982:175-176) explains, the circumstance of having inadequate knowledge which makes it impossible to precisely explain the current, potential or likely result is uncertainty.

According to Arcelus et al., (2002:662), for most purchasing managers of global manufacturing firms, the existence of risk-sharing agreements still means purchasing price uncertainty, even though there is a contract at an agreed-upon purchase price in the buyer’s home currency. But, letting individual purchasing managers deal constantly with a whole range of uncertain prices without proper methodological support tends to critically weaken the salutary effect of risk-sharing contracts. Moreover, the nature of exchange rate induced uncertainties is normally similar across purchasing managers world-wide. Arcelus further notes that changing suppliers may very well eventually offset swings in foreign exchange, as literature on global sourcing suggests. But, if the currently preferred supply-chain management long-term contracts are enforced, distributing these fluctuations among parties may be a halfway step needed to avoid the costs of switching. It is often impossible to model such in the long-term. Arcelus also explains another reason for the existence of risk-sharing models as “that many products, namely, in high-technology fields, exhibit proprietary designs. Under these conditions, it may be extremely difficult, if not downright impossible, to have multiple sources of such items. In such cases, sharing the risk, rather than shifting it to alternate supply-chain partners, may be the only feasible alternative.”
In line with the above, Ford (2011:23) explained that uncertainty to a degree stems from the real circumstance, however the course of interaction in such relations is also dependent on it.

Figure 3.5 presents the uncertainties faced by both customers and suppliers in business relationships.

![Figure 3.5 The Uncertainties of Customers and Suppliers](source: Ford et al., 2011:23)

### 3.5.1 Customer Uncertainties

Buying and having inadequate knowledge of what is being purchased and the quantity needed, whether the kind of offerings accessible is rationally constant and also whether there are other suppliers to weigh purchasing options, is customer uncertainty (Ford et al., 2011:23). There are three types of customer uncertainties and they include the following:

**Need Uncertainty**

Customers having the difficulty to interpret the precise nature of requirement in acquiring raw materials, services, tools and machines for their companies by combining it with the actual need (Ford, 1997:54). In line with the preceding, Ford et al., (2011:23) mentioned that customers frequently find it hard to describe their problems and might not be acquainted with the solutions that are best for them, hence will have a big impact in the way they approach suppliers to do their purchasing.

**Market Uncertainty**

Ford (1997:54) states that when customers perceive their suppliers as alternatives to acquire resources, it is dependent on the level of dissimilarity involving the supplier's heterogeneity and the ways in which such difference transform eventually. The same view is shared by Ford et al., (2011:24) who indicates that customers are frequently faced with extensive and diverse solutions to a specific problem from various sources. On the other hand, customers might discover the rapid change in technology in the area
so as to facilitate the latest and diverse solutions which are fast growing within the marketplace.

**Transaction Uncertainty**

This involves the issues concerning logistics where the products are transported physically, legally and on time from suppliers and delivered to customers (Ford 1997:54). This notion is also suggested by Ford et al., (2011:24) that customers mostly make huge purchases based on the available offerings from various suppliers it has relationships with. However, these customers might always be unsure as to whether these suppliers shall accomplish what was assured in providing the right offer on time, in the right place, performance, at the price that was promised and be consistent with these aspects.

3.5.2 Supplier Uncertainties

Being unsure as to whether the offerings on the raw materials sold at present will be sold in the long-term, by forecasting how they are going to be used and if the customers are partners that are dependent on them, is supplier uncertainty (Ford et al., 2011:28). On the other hand Gupta & Sommers (1996) cited in Kumar et al., (2008:284), state that whenever there is uncertainty, sourcing flexibility eases quicker responses. Sourcing flexibility is defined as the ability to change sourcing decision like the quantity of suppliers per component and schedule of delivery; this in turn provides a positive effect on the flexibility to manufacture. Another way is the one suggested by Lee (2002:111) in his review, indicating that one way supply uncertainties can be reduced is by early design collaboration. Some corporations like Bose, have used “on-site” representative concept, in order to foster communication, this is when a supplier representative is stationed at the customer’s site.

Lee & Billington (1993: 835) pointed out different sources of uncertainties exist along a supply chain. They include demand (volume and mix), process (yield, machine downtimes, transportation reliabilities) and supply (part quality, delivery reliabilities). Inventories are often used to protect the chain from these uncertainties. Meanwhile Ford et al., (2011:28) also indicate three types of supplier uncertainties, which include the following:

**Capacity Uncertainty**

Suppliers are always unsure as to the exact nature of an offer they are capable of selling at any time. Capacity uncertainty in this regard, is probably going to elevate among suppliers whose cost to produce and develop is fixed, or those that have few key customers who dominate their operations in order to be provided with sales volume and guarantee.
Application Uncertainty

Being unsure as to the kind of customer problems suppliers need to deal with and regarding the ways in which what they offer could be used very efficiently and by which customers, is application uncertainty. Such uncertainty shall probably elevate as soon as what is offered is based on new technological improvement, whether there is the need for it to be incorporated into the customer's operation in a simple way or when the function changes swiftly.

Fulfilment Uncertainty

Suppliers are not always certain that customers really have an idea as to what they ought to purchase and at the same time might not have faith in them to cater for their demands based on this. There is also the doubt and lack of faith that customers would not acknowledge receipt of what was being ordered at the specific time and pays the exact price that was decided. When suppliers in this regard undertake significant progress in developing or adapting efforts on customer's behalf or if orders for their offerings are based on certain customers, fulfilment uncertainty is expected to be high. In such circumstances, suppliers should try to create relationships where there is high involvement with these customers, in order to be familiar with their supplies and possible activities.

3.5.3 Customer Abilities

Trying to influence the uncertainties of suppliers by making emphasis on the randomness of demand from other buyers for the offerings from such supplier's, which might convince them to value these customer's so much, are customer's abilities (Ford et al., 2011:28). The authors mentioned two types of customer abilities and they include the following;

Demand Ability

Customer's demand abilities allows them to give advice to supplier's regarding the kind of offers they must produce, as well as giving them the quantity and sort of demand required. These demand abilities on the part of customers is due to high-volume requirements, however it might also be the reason that they understand how to construct supplier's offerings and to incorporate them in their operations (Ford et. al., 2011:29).

Fulfilment Ability

Customer's fulfilment abilities are the reliabilities in providing the agreed kind and quantity of orders as well as informing these to suppliers, in order to be more effective in managing the relationship for mutual interests of both parties, since showing their abilities and making themselves worthy for supplier's as it creates efficiency (Ford et al., 2011:29).
3.5.4 Supplier Abilities

Suppliers try to control the uncertainties of customers as a reason for them to relate closer to the abilities in the relationship that they wish to exploit (Ford et. al., 2011:25). The authors mentioned two types of supplier abilities and they include the following:

**Problem-Solving Ability**

Supplier’s ability in designing, developing as well as assembling offerings from various sources as a result of providing solutions to customer’s problems. These includes addressing customer’s problem regarding offerings such as product, service, advice adaptation, logistics and price as well as costs, however aspects such as advising or adapting are probably going to be crucial. Such problem solving abilities from suppliers could probably be important to customers with difficult or vital issues to deal with and also when they are having a need or network uncertainty (Ford et. al., 2011:25-26).

**Fulfilment Ability**

Supplier’s fulfillment ability is mostly essential to customers that have high fulfilment uncertainties and measures the extent to which suppliers could fulfil their promises made on the offerings at the time, price as well as the flexibility customers anticipated. This fulfilment ability on the part of suppliers involves emphasis made on low costs for supplies, reliability, delivery and compliance to the requirement of standardized offerings (Ford et. al., 2011:26).
The conceptual framework is derived from the theories above and was used as a guide in collecting empirical data. Having reviewed the literature on supply management, we now provide definitions and relationships for the key concepts for this study.

**Purchasing Strategies** – Different firms use different purchasing strategies in sourcing raw materials for their operations. In this regard, the authors investigated how the companies in question strategize in purchasing their needs.

**Supplier Relationship Management** – Managing relationships with suppliers is a key aspect for a buying firm. As the companies being studied are all in the manufacturing industry, the authors investigated how they manage the relationships they have with their various suppliers. This helped to categorize different relationship orientations (high or low involvement) these firms have with their suppliers and how they manage them.

**Uncertainties** – Business Relationships are faced with different uncertainties, which play an important role in how companies choose the relationship orientations they have for their operations. Due to this, the authors uncovered the reasons certain relationship orientations are favored more than the other, as such uncovering uncertainties.
5 EMPIRICAL DATA

This section contains data related to the three organizations; ABB M&G, Scania CV and Volvo CE and is a consequent of interviews and website visitations. The interviews were face-to-face, telephone as well as email. The interviewees consists of ABB M&G’s Local Division Supply Manager - Tobias Grimerö; Scania CV’s Global Purchasing Manager – Tom Björklund; Volvo CE’s Global Core Manager – Peter de Mander as well as Volvo CE’s Project Buyer – Niclas Carlevad.

5.1 ABB MOTORS AND GENERATORS (ABB M&G)

ABB Motors & Generators (ABB M&G) is a business unit affiliated to ABB Group, which is amongst the world’s leading power and automation technology firms. The company’s product portfolio includes, light switches, robots, electrical transformers of different sizes, control systems for power networks and factories etc. (ABB Group Annual Report, 2011).

This business unit is located in Västerås and is focused on the production of big and small size motors and generators. ABB M&G with about 1000 employees consists of two units where all production takes place and has different kinds of production and set-up. The first unit is where tailor made big and small machines are produced, it has a platform to start with, but adjust due to the requirements and technical specifications that their customers and end users need in their applications. The other unit deals with low voltage motors and has the capacity of producing in huge quantities (Grimerö, 11-05-2012).

Purchasing Organization at ABB M&G

ABB M&G’s purchasing organization consists of Supply Chain Management Business Unit, Global Commodity Management, Local Commodity Management and Purchasing (in hierarchical order). All these units are cross functional as they work hand in hand to come up with the best solutions possible in purchasing. The functions are networked in about three dimensions; the first one consists of the Business Unit, Supply Chain Management, Global Business Unit, Global Commodity Management and the Local Commodity Management. The second one consists of the Global Business Unit, Global Commodity Management and the Local Commodity Management and then the third dimension includes the Local Commodity Management and the Purchasers (Grimerö, 11-05-2012).

The purchasing organization of ABB M&G consists of a group of people who often work directly with the raw materials. The unit negotiates and set up contracts with various suppliers the organization is in contact with. There are 10 people at ABB M&G who are in charge of dealing with the development of the supplier base and the company works together with about 550 suppliers throughout the year, to fulfill the needs of this local business unit (Grimerö, 11-05-2012).
5.1.1 ABB’s Purchasing Strategies

Suppliers are expected to comply with ABB Group’s code of conduct to be able to collaborate with them, otherwise the partnership would not work. Each supplier is obliged to fulfill this and also see to it that their sub-suppliers do the same. The basis for choosing goes beyond the supplier, by looking at the potential supplier’s suppliers as well, if they are in relationships that ABB Group considers unethical or not to their standard, then the collaboration is likely not to work. A Supplier Qualification Process (SQP) is used to identify suppliers at ABB M&G and they are then selected based on their levels. There is a standard procedure to be followed by would be suppliers and this is what they call gates, which is mandatory for them to fulfill (Grimerö, 11-05-2012).

Last year, ABB Group considered the need to define a way to have common value ground in looking for suppliers and a project was assigned to a summer trainee to come up with a "Supplier to ABB Book" which serves as a guidance for potential suppliers to follow if interested to supply to ABB AB. This book has been approved and shall be used as a handbook with a philosophy of supply management and will be placed at the ABB desks. The components of ABB M&G include copper, electrical steel, castings, bearings and forgings (Grimerö, 11-05-2012).

The different business units at ABB M&G are also divided into two product groups in order to keep a focus on people that are working with different applications. The reason for this division is to enable them work closely with customers as it is important for them to be aware of what their requirements are, especially for the future. There is a Global Supplier Management team at ABB AB, but there is also a Global Commodity Manager for different components for the M&G's business unit. For example, one unit could be a big consumer of a commodity for their operations, yet there are other business units that could also be working with the same component as a material. As such, it is the Group Commodity Manager’s task to negotiate with suppliers for different components and also set the rules as to how the different units are supposed to source. ABB M&G has an Operative Purchaser within the unit that takes care of the sourcing for components. In this aspect, all these managers collaborate regarding the sourcing for components for their different business units (Grimerö, 11-05-2012).

People who deal with global sourcing at ABB M&G require the right skills, but most importantly, it comes down to personality, which is being able to work as a Project Manager and in a way, all purchasers in this unit are production managers for all those supplier components. The overall target ABB M&G considers in supplier criterion is Total Landed Costs (TLC) and this is built up through different key performers, where the company considers price, quality, cooperation and performance as the criteria used in choosing suppliers for their components (Grimerö, 11-05-2012).
5.1.2 ABB’s Supplier Relationship Management

ABB Group builds relationships overtime, where the company carries out a supplier qualification process, in the form of contacts with their business units, purchaser and manager of these functions or through negotiations, all these opportunities for contacts are ways of building relationships with their close suppliers and everything should relate to business activities. For a relationship to work, supplier on time delivery is vital as Grimerö further points out, the company has a supplier relationship portfolio, where suppliers are categorized in different segments; A, B and C. The A category consists of suppliers that the company is in frequent contact with due to the nature of supplies and relationship, as such highly involved with each other; category B contains suppliers that are neither close nor arms length. The suppliers in this category could be considered back up in case of a problem with the highly involved suppliers; Category C suppliers are one time off or ones which ABB M&G is seldom in contact with. The relationship building process, involves monitoring and evaluating, if a supplier proves reliable and important, they are moved to the A category and vice versa if the relationship seems problematic (Grimerö, 11-05-2012).

Suppliers ranked A, are their strategic suppliers, B are their strategic area suppliers and C are their one-time purchase basis or sample suppliers for a particular customer. It is very seldom for the company to establish contacts with C suppliers and there could be a number of reasons for doing that, however it is very difficult to have or maintain the same kind of routines with the whole 550 suppliers. ABB M&G have an intranet where a request for or to change suppliers takes place. Strategic sourcing in determining the right supplier is about working really cross functional, which is involving more or less all the functions of the company to get what is needed, moreover the best solution. ABB's Research and Development (R&D) center should be aware of what their business units are doing and if they do not, then that’s not the best. This is because if groups meet for production and they don’t know what to do, then there might be difficulties which is not what ABB M&G wants. All the suppliers are ranked C in the beginning as they are always sample tested which is a principle and there is a process map shared by all colleagues within the purchasing department to reduce their uncertainties in handling different situations (Grimerö, 11-05-2012).

ABB M&G believes that relationships with suppliers should be kept at a certain level, not too close because there is a challenge in the market and that the company needs to have certain sort of tools in their box. The company tries to avoid dependence by using different suppliers for the same component at different times, if they collaborate with one supplier for a certain component at one time, it does not mean they will collaborate with the same in another transaction involving the same component. The company has a tendency of using different suppliers at different times and avoids using the same routine all the time because if suppliers get use to it, then there is a risk of dependency. The level of involvement depends on the kind of transaction, where the company's goal
is to create long-term relationships with their core suppliers. However, the company has arms-length relationships with some of its suppliers (Grimerö, 11-05-2012).

In managing key suppliers, ABB M&G monitors supplier performances where it considers the first deliveries as the final stage in the supplier qualification process. The company uses this as a baseline to forecast supplier's efforts to continuously improve. ABB M&G also monitors suppliers’ performances and trends, relating this to them regularly such as in cases of non-conforming materials, component, services or systems, where the company determines an excellent way of securing conforming supply to meet its production requirement. The company expects its supplier's to cooperate accordingly in order to reduce the impact of such problems and they are also held responsible for supplying non-conformance materials (Grimerö, 11-05-2012).

ABB M&G monitor supplier performances monthly, by reviewing its supplier base so as to give them support to improve and also identify areas as well as processes that need to be enhanced. These reviews are regular using a set of Supplier Performance Criteria (SPC) such as Supplier OTD, Product Quality, Cooperativeness and Cost to aid this process. The reasons for reviewing supplier performances for ABB M&G is that it is used as a tool to identify ways of improvement for both parties and also to strengthen their relationships, where the company achieves this by actively observing supplier and sub-suppliers to improve their SPC scores. ABB M&G also collaborates with its suppliers to reduce costs as well as develop new technologies. ABB M&G motivates its key suppliers whereby it acts as an excellent reference for their quality performance, by giving them the opportunity of becoming global players and can also supply to other divisions within ABB Group. Suppliers for ABB M&G are also given the chance to access and develop advanced technologies for their own benefits, as the company develops and produces high technology products. Trust is one of the key elements needed for ABB Group to rely on its supply chain. The supply chain is of critical importance in ABB’s operations as such the need to deal with suppliers they are able to trust (Grimerö, 11-05-2012).

ABB Group spent about $USD 40,210m on orders during the year ended 2011 (ABB Group Annual Report, 2011:53). This amount includes ABB M&G’s expenditure.

5.1.3 ABB’s Uncertainties

The aspects of the TLC which includes price, quality, cooperation and performance all go together in making demands to suppliers as they are on the basis of customer’s demands. This is because ABB M&G have to meet these as they do not have all the pieces to complete production and most importantly to enhance their company’s reputation on high end products. Lead times are other aspects in supplier selection criteria as it’s about the company having the components when they need them and also on-time-delivery where the components are to be received on time and at an agreed date according to their business rules. These deliveries could also take place three days ahead of the agreed date and should be zero-day late and this is because this can be handled in
circumstances where components are delivered late and that affects internal control as it is a cost of effort and money (Grimerö, 11-05-2012).

5.2 **SCANIA COMMERCIAL VEHICLES (SCANIA CV)**

Scania CV is part of Scania Group Global, one of the leading manufacturing multinational companies worldwide. The company manufactures buses and trucks for heavy transport applications as well as marine and industrial engines. With a sales and service organization that operates in more than 100 states with 37,500 employees, Scania also offers financial services in several markets. The head office is based in Södertälje, Sweden and its production units are situated in Latin America and Europe, with facilities for global interchange for both complete vehicles and components (Scania Group Annual Report, 2011:5).

**Purchasing Organization at Scania CV**

Scania Group's Global Purchasing head office is located in Södertälje, Sweden and it consists of Automotive Products, Non Automotive Products and Local Purchasing Office. There are 600 employees in the global purchasing department. The Purchasing Organization consists of automotive products that are connected to trucks or buses and Non Automotive products that are not mounted in the production facilities or sold as spare parts connected to oil and things that are not assembled on the trucks and engines. There is also a Commercial System in this unit (Björklund, 17-04-2012). The central purchasing department in Södertälje is supplemented by local purchasing procurement offices in the Czech Republic, Poland, Russia, China, Brazil and The United States (Scania Group Annual Report, 2011:5).

Scania CV ensures that all employees are equipped with the right tools to be able to deal with different kinds of suppliers. The purchasing functions in place are the tools for all personnel to use to arrive at the right Quality, Delivery time and Cost. These include Cost Engineering, Risk Management, Business Analysis and Purchasing On Line. Cost Engineering focuses on the costs. Risk management looks at different suppliers and ensures that they are financially stable. Business Analysis follows the prices of copper, steel and so on to reach conclusive decisions as they negotiate with suppliers. Purchasing On Line enables a 24 hour connection, solving production or quality problems with different suppliers in different time zones. The Commodity Purchaser, Project Purchaser and Quality Engineer work hand in hand in acquiring key components for production (Björklund, 17-04-2012).

There is also a local purchasing office, one in China, Poland and Czech, this is mainly because these countries have lot of suppliers and since the company is in Sweden, it is easier for their managers or representatives in these countries to deal with the suppliers as they also know their culture. Weekly telephone meetings takes place more or less between these managers and the ones at Scania CV to keep each other updated. There
are also meetings where the project production purchaser, spare part purchaser, quality and the local purchasing officer attend to discuss issues that are ongoing. Each and every purchasing department at Scania CV has a quality engineer who is connected to the department, responsible for monitoring the quality issues (Björklund, 17-04-2012).

5.2.1 Scania CV's Purchasing Strategies

Scania CV's focus is on small and mid-size suppliers, their basic philosophy is to use dual sourcing for all parts and components as well as long term relationships with their suppliers, based on mutual trust. The company prefers to own their dealers and quality is more important than cost as their brand is premium. Scania CV’s purchasing vision is to continue being the most efficient and attractive purchasing operation in the industry. The mission is to provide value to their customers by supplying required material, equipment and service to the right quality, delivery and cost (Björklund, 17-04-2012).

**Quality** is looked at in terms of Deviation, Purchasing On-Line and Commitment. Deviations are measured in terms of logistics and technical, both these are considered important and should be avoided by all means. Purchasing On-Line is a support for Scania CV and its suppliers, this function is connected to the purchasing department so that there is ease in communication with suppliers throughout despite the time zones. Commitment is a prerequisite and encourages a structured way of working with quality. As much as cost is considered important, delivering quality comes first at Scania Group; **Delivery** includes On-time, flexibility and logistics; On-time Delivery implies that deliveries should be 100 % right on time and 99 % is not enough. Flexibility suggests a level of high service and an increased focus on demand and logistics. Logistics looks at minimizing costs and the impact on the environment; **Cost** involves productivity, supply chain and part design; Productivity means continuously working with improvements in production supply chain, to continuously develop and challenge the supply chain. Part design involves the support and know-how to improve and lower the cost of Scania Group’s parts, in instances where the company might need the expertise of its suppliers to produce some parts (Björklund, 17-04-2012).

At Scania CV, the global purchaser is globally responsible for acquiring products for the company and with the day-to-day business, there is also local purchaser within the unit who discuss with the suppliers. The company tries to approach suppliers at the right levels both in terms of quality and delivery. The company has a tool box as a guide for new purchasers, in order for them to gain knowledge in making supplier evaluations before purchases are made. There are escalation models that are also used to escalate suppliers that are problematic. Supplier selection criterion at Scania CV is on the basis of different kinds of demand which is dependent on the company's need for more components or if supplier’s are unable to deliver to them. (Björklund, 17-04-2012).

In developing relationships with key suppliers, Scania CV makes visits to the countries where these people are based and suppliers do visit Sweden as well. Apart from this,
meetings via internet and teleconferencing are also ways in developing their relationship with suppliers. With key suppliers, regular collaboration takes place through internet and teleconferencing based on a project. Suppliers are treated differently depending on the dynamic of work (Björklund, 17-04-2012).

### 5.2.2 Scania CV's Supplier Relationship Management

There is a significant improvement noted as regards to delivery when Scania CV started working with its core suppliers more closely. Such collaboration with suppliers has increased quality in products and innovations. Suppliers are expected to show 100% commitment, must share the same basic philosophies as Scania CV and be able to participate in its improvement processes. Following the Organization for Economic Cooperation and Development (OECD) guidelines is mandatory and suppliers must possess ISO/TS 16949 and ISO 14001. However, if a supplier is competent but does not fulfill this, Scania CV helps them introduce the ISO requirements. Zero defects as a quality standard, measurement of non-conformance, 100% delivery accuracy as well as Framework Agreement for cooperation are also made known to suppliers (Björklund, 17-04-2012).

Supply Chain Controller in the production department has daily contacts and collaborations with its suppliers. Production Purchasing Department is more involved with the suppliers than the Spare Parts Department. They have a smaller amount of suppliers and they have continuous changes on the parts they produce as such more adaptations, encouraging frequent contacts. The company has a relationship portfolio, where suppliers that are producing components for their production and have frequent contacts with are ranked the key suppliers and there is high involvement with such. There are other suppliers that Scania CV has, but these are mostly used when there is the need, as some of the components used for production keeps on changing. The company favours close relationships, where there is respect, trust, honesty and collaboration. There is a philosophy in the purchasing organization, which is to treat suppliers in a standard way, in other words Scania is highly involved with its core suppliers (Björklund, 17-04-2012).

The company strives to build relationships with its suppliers by making regular personal contacts and making use of the supplier portal tool online. Through this, the company is able to work closely with its established suppliers as well as get to know them better. Potential suppliers are encouraged to fill in Scania Group's supplier self-assessment forms, providing them with information about many aspects of their business, which include how they manage social and environmental issues (Scania Group, Encouraging Suppliers – 2012).

As far as problem relationships are concerned, Scania CV's management tries to help suppliers that have problems delivering. Monitoring the suppliers until a problem is
solved is how they try to help. Trust is very significant in Scania Group’s relationship with its suppliers. Without trust, the partnership cannot work (Björklund 17-04-2012).

Scania Group spent about USD1,902m on raw materials, components and supplies during the year ended 2011 (Scania Group Annual Report, 2011: 110). This includes Scania CV’s expenditure.

5.2.3 Scania CV’s Uncertainties

There is a zero defect policy on performance, for instance in terms of quality the company is looking at logistical deviation as well as technical deviation and they work more and more with suppliers to avoid problems, regarding deliveries. Over the years, Scania CV built up a safety stock for suppliers that are not performing, in other words the company is paying for underperforming suppliers in order to monitor and add a hundred percent value to the delivery position and quality. In dealing with suppliers’ problems, Scania CV has an Escalation Model, where the company uses tools to monitor and identify suppliers that are performing and capable to supply or not. Where the latter happens, the company tries to escalate the suppliers in order to help them and monitor changes, which is a way to motivate suppliers for long-term relationships (Björklund 17-04-2012).

5.3 VOLVO CONSTRUCTION EQUIPMENT (VOLVO CE)

Volvo CE is one of Volvo Group’s business units and among the largest manufacturers of excavation equipment, road development machines and compact construction equipment. The company is multinational and is in the developing, manufacturing and marketing of construction equipment and similar industries. The product range includes hydraulic excavators, wheel loaders, motor graders, articulated haulers, soil, asphalt compactors, milling machines, pavers, backhoe loaders and skid steers. Apart from products the company also offers a broad range of customer solutions in financing and used equipment (Volvo Construction Equipment, 2012).

Volvo CE’s Purchasing Organization

Volvo CE’s purchasing organization consists of Plant Buyers, Project Buyers, Commodity Buyers, Operational Supplier Developers, Project Supplier Developers and Commodity Supplier Developers. The functions are in frequent collaboration to achieve the desired competence in product development for customer satisfaction, these are in two categories; 3 different kinds of buyers in one category and 3 different supplier developers in another.

Buyers

Plant Buyers are responsible for a purchasing portfolio in ongoing production activities at specific locations as well as managing the plant supplier base on a regular basis. Project Buyers are responsible for purchases in product development and industrial
projects depending on specific sourcing strategies and commercially accountable for new components in product development projects. Commodity Buyers are responsible for the overall strategic approach as well as managing the supplier base for specified sub-commodities. They are directly responsible for defining sourcing strategies and coercing the purchasing and supplier management pipeline for reducing costs in these sub-commodities. There is a strong collaboration with all stakeholders involved (Carlevad, 11-05-2012).

**Supplier Developers**

Operational Supplier Developers are responsible for the management and improvement of quality performance with the European supplier base in ongoing production and to resolve problems using problem solving methods, root cause analyses, Supplier Quality Development Process (SQDP) and are also responsible for supporting the product maintenance team; Project Supplier Developers are responsible for the Purchasing & Supplier Management (P&SM) deliverables linked to quality assurance of new parts in which Product Portfolio Development (PPD) projects are accomplished and also for securing the quality of new parts by applying the Advanced Product Quality Planning (APQ) process; Commodity Supplier Developers are responsible for supplier strategy from the Supplier Developer’s view point by ensuring that their key suppliers fulfill the quality demands upon selection. This function also supports the commodity strategies by applying tools to secure a supplier base and part quality via the APQ process for initiated projects in the pipeline. In short, Volvo CE has 5 main processes: Product Portfolio Development (PPD), Sales to Order (StO), Order to Delivery (OtD), Delivery to Repurchase (DtR) and Support Processes. Purchasing is involved in the PPD and OtD processes (Carlevad, 11-05-2012).

5.3.1 Volvo CE’s Purchasing Strategies

Volvo CE’s core components are both complex and diversified. However, since most manufacturing is done by the company itself, most purchases include components like nuts, bearings, bolts etc (De Mander, 06-05-2012).

The total number of suppliers at Volvo CE for the European region is 924, of which the Eskilstuna site accounts for 123 of them. The site buys about 1400 parts, the biggest commodities the European region sources include sheet metal, flat products, tyres etc (Carlevad, 11-05-2012).

In order to work in this area, personnel must have the right qualifications as well as specialization in different products, that way, they will be able to know what kind of components are needed for different products. Volvo CE also provides continuous training to all personnel at different levels in line with different innovation processes (De Mander, 06-05-2012).
5.3.2 Volvo CE’s Supplier Relationship Management

The criterion used for choosing suppliers is that they have to meet the three Volvo CE’s requirements or core values which include; Safety, Quality and Environment. Suppliers must be able to offer components that are in line with these core values. Another important aspect is that suppliers must be ISO (International Organization for Standardization) certified to be able to supply to Volvo CE. Of course, cost reduction is also an important aspect but it is not the part they look at first. The core values are looked at first, followed by cost (De Mander, 06-05-2012).

An elaboration of what Quality, Safety and Environment stands for was retrieved from Volvo Group's website. Quality is Volvo’s mindset – it means that the company’s offerings can be trusted. The focus is on customers’ needs and expectations, in all aspects of their business, from product development and manufacturing to delivery and customer support; Safety - relates to how the use of Volvo’s products affects society. The company is striving to improve safety and working conditions for the drivers and vehicle operators and minimize the risks and consequences of accidents; Environmental Care – shows Volvo’s commitment to improve energy and resource efficiency and reduce emissions in all aspects of their business, while focusing on society in the use of Volvo’s products (Volvo Group – Suppliers, 2012).

To confirm the preceding, Carlevad (11-05-2012) mentioned that to supply to Volvo CE, it's vital for suppliers to be able to deliver the right Quality, on time Delivery and at the right Cost (QDC), in that order. He also pointed out that Volvo CE’s priorities for 2012, is to continue reducing costs through the pipeline activities, reduce the supplier base, secure enough capacity at their suppliers, secure on time deliveries in new PPD projects.

Volvo CE has a supplier portfolio for every commodity, the portfolio is categorized in four; Preferred Suppliers, Back up suppliers, Phase out suppliers and New suppliers. Preferred suppliers are the ones the company has frequent collaboration with, hence high in involvement, Back up suppliers contains the suppliers who are likely to be used in case of a problem with the preferred suppliers, e.g. failure in delivery and the like. Phase out suppliers could contain relationships that are phasing out, probably due to too many problem encounters like delivery failures etc. New suppliers’ category contains the upcoming and potential suppliers and can move to preferred or back up suppliers. The back-up suppliers can either move to preferred or phase out and the preferred suppliers to back up or phase out categories. This portfolio is well managed and monitored closely (Carlevad, 11-05-2012).

Volvo CE’s supplier quality development process takes form in five stages, in the order of appearance; Monitoring, Adjusting, Alerting, Critical and Point of no return. The Quality Assurance & Materials control is responsible for monitoring and adjusting suppliers as collaborations are being developed, whereas the Purchasing & Supply
Management functions come in, when there is an alert, critical or point of no return situation. The SQDP is also used for deliveries and not just quality. At alert, the responsibility/role as leader will be moved from production to P&SM. At critical, management will be involved and if it concerns a preferred supplier, they will be moved to back up supplier. The level of involvement depends on whether the supplier is key or not and in instances, where the supplier is the design owner, the involvement is high, because the supplier has the expertise and must be relied on (Carlevad, 11-05-2012).

De Mander (06-05-2012) also pointed out that the involvement of suppliers in Volvo Group’s operations is different depending on the components; it is high when the component is of critical character, where the suppliers’ expertise is needed and such suppliers are considered partners. Volvo CE works hand in hand with most of its core component suppliers. A good example is after the tsunami in Japan last year, the core Japanese supplier sent their resources (knowledge & equipment) to Eskilstuna Volvo CE so they could produce some components for Volvo CE. Carlevad (11-05-2012) also indicated that the level of involvement to a large extent depends on the project or commodity. The more the suppliers expertise are needed, the higher the involvement and vice-versa.

To motivate suppliers, Volvo CE has an annual supplier of the year award ceremony, where the best supplier is given an award, suppliers are managed by continuous discussions, follow ups, meetings etc (De Mander, 06-05-2012). Carlevad (11-05-2012) also mentioned that the company holds meetings with its key suppliers two to three times annually and arrange visitations for both parties to meet at each other’s plants. These meetings include discussions on collaborations in the long run and can be via the internet and telephone on a continuous basis.

Trust is everything at Volvo CE, there is no way the company can work with suppliers it cannot trust because it can be costly working with suppliers that do not meet its demands. Suppliers that do not perform in accordance with Volvo’s requirements are phased out (De Mander, 06-05-2012).

As at 31st December 2011, Volvo CE European region spent about USD 1 170 820 000 on purchases, of this amount, the Eskilstuna site accounts for 13% at USD154 298 000 million (Carlevad, 11-05-2012).

5.3.3 Volvo CE’s Uncertainties

Volvo CE has experienced growth in terms of products, however, the number of suppliers has significantly reduced, instead of increasing. This is because the company wishes to be able to manage and build closer ties with fewer suppliers (De Mander, 06-05-2012).

The company has been faced with a number of uncertainties, including the fulfillment uncertainty. When a supplier promises to deliver an offering which does not match up
Volvo CE’s requirements, it becomes very costly. That is why they would rather work with suppliers they are certain of. The main problems the company has been faced with is tyre supplies, there is always a shortage of them, as such they sometimes send machines to their buyers without the tyres so that local dealers can include them (De Mander, 06-05-2012).

Uncertainties are unavoidable even if Volvo CE tries to be proactive, in order to manage them, the company works more closely with the preferred suppliers as both parties understand each other better and it’s a win-win situation. The company is very proactive in settling disputes, they ensure that they meet with their suppliers immediately a problem arises, hence reduce uncertainties. Working closely with preferred suppliers, helps them reduce the levels of uncertainty and enhance the company’s capacity to deliver to their end users (Carlevad, 11-05-2012).

Table 5: Summary of Empirical Findings

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>ABB M&amp;G</th>
<th>SCANIA CV</th>
<th>VOLVO CE</th>
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<tbody>
<tr>
<td>Products</td>
<td>Motors &amp; Generators</td>
<td>Commercial Vehicles</td>
<td>Construction Equipment</td>
</tr>
<tr>
<td>Purchasing Organization</td>
<td>Supply Chain Management</td>
<td>Global Purchasing Unit, Local Purchasing Unit</td>
<td>Plant Buyers, Project Buyers, Commodity</td>
</tr>
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<td></td>
<td>Business Unit, Global Commodity Management</td>
<td>(Commercial System), Central Purchasing Department</td>
<td>Buyers, Operational Supplier Developers,</td>
</tr>
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<td></td>
<td>Local Commodity Management and Purchasing</td>
<td></td>
<td>Project Supplier Developers, Commodity</td>
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<tr>
<td></td>
<td>Unit</td>
<td></td>
<td>Supplier Developers</td>
</tr>
<tr>
<td>Purchasing Strategies</td>
<td>Quality, Delivery then Cost &amp; Skilled Human</td>
<td>Quality, Delivery then Cost &amp; Qualified Human</td>
<td>Quality, Delivery then Cost &amp; Qualified Human</td>
</tr>
<tr>
<td></td>
<td>Resource</td>
<td>Resource</td>
<td>Resource</td>
</tr>
<tr>
<td>Supplier Relationship</td>
<td>Relationship portfolio, High Involvement</td>
<td>Relationship portfolio, High Involvement</td>
<td>Relationship Portfolio, High Involvement</td>
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<tr>
<td>Management</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Uncertainties</td>
<td>Customer, Transaction, Market, Demand,</td>
<td>Customer, Transaction, Market, Demand</td>
<td>Customer, Transaction, Market, Demand,</td>
</tr>
<tr>
<td>Expenditure on supplies</td>
<td>$40,210m (for ABB Group, 2011) in which ABB M</td>
<td>$1,902m (for Scania Group, 2011) in which Scania C</td>
<td>$ 1,170,820 (for Volvo CE, European Region,</td>
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<td>&amp;G is part of.</td>
<td>V is part of.</td>
<td>2011) (Volvo CE Eskilstuna, $154,298m, 2011)</td>
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</table>

(Source: authors own creation)
Looking into different supplier relationship orientations carried out in three multinational corporations namely; ABB M&G, Scania CV and Volvo CE has been interesting. The study helped the authors see how their relationship involvements with their suppliers are, with regards to supply management and also their views behind choosing the relationships orientations favoured.

The three firms have a supply chain management in place. As theory states, it is the designing and managing of seamless, value-added processes across organizational boundaries to meet the customers’ real needs. All the three companies have internal processes in place that involve different functions in purchasing deliberations that will create value to their businesses. The processes include the coordination of the supply base, discovering the right suppliers and building the right kinds of relationships. The three companies have purchasing organizations with different functions in place for a common goal. This is in line with Dobler & Burt’s theory that a firm’s approach to international sourcing starts from a reactive to a proactive mode. Most firms are assuming proactive roles in matters of purchasing because if wrongly done, it can be costly. These companies are global, hence inevitable for them to be sourcing globally and must have global purchasing functions in place to enable them to assume proactive roles in negotiating with suppliers from different parts of the globe.

**Purchasing Strategies**

Strategic Purchasing has been noted in all the three companies, as defined by Carr & Smeltzer, that it is the way in which companies plan, implement, evaluate and control the strategic and operating decisions to purchase and direct every activity and function, headed for any opportunity that is reliable with their capability in accomplishing enduring goals. The three companies in question have written down plans, which they implement, evaluate, control as they source various components for their operations.

Of the four (4) purchasing strategies laid down by the IMP Group, the three are seen and common among the companies as empirical findings showed; these include Low Indirect Costs, External Specialists and Supplier Development.

The *low direct costs* strategy was not seen in any of the three companies, as they all indicated that quality comes before cost. The three are producers of high end products, therefore, putting quality in high consideration. The *Low Indirect Costs* strategy is seen in all the three firms as they are in one way or another getting some of their core suppliers to adapt their products to suit their needs. In order for this to work, there is need for high collaboration with the suppliers involved as such the need for putting a lot of effort in relationship development, this way the firms’ indirect costs are to a large extent decreased. At the same time, the suppliers will feel the need to develop long-term relationships with companies that are willing to collaborate with them as it is a win-win
situation. The external specialists strategy is seen but not to a large extent in all the three firms. Even though, it is noted in the empirical findings that from time to time either ABB M&G, Scania CV or Volvo CE require the expertise of their suppliers to fulfill their needs, either in terms of design or any of the production processes, it is not so common. The three companies are of multinational magnitude and have their own advanced R&D units which work intensively to come up with solutions. It is clear that none of them is highly dependent on external specialists, but use them from time to time. The external specialist strategy would be well fitting in firms that do not spend a lot of money on R&D as these firms. Traces of the supplier development strategy are seen in the firms, when they indicated that suppliers would come up with designs of certain products. As such, it would be fair, to say that the resources the buyers might be lacking or in need of are the expertise to design a part. However, this strategy is not fully fledged in any of the three firms, because of their magnitude. It is clear that they spend a lot of money looking for solutions to problems, hence, reduce dependence on suppliers.

The three firms have realized the importance of supplier involvement to achieve a sustainable competitive advantage, which will in turn give best solutions to their end users. They all have quality as one of their core values for suppliers to possess. The survey data collected by Carter & Narasimhan which suggests that internal incorporation of suppliers will increasingly become stronger with time is in conformity with the three companies, whose goal is to reduce their supplier bases as much as possible. All the three firms, started off with arms-length relationships, and since they have seen the benefits of close relationships, they are trying to find ways to reduce their supplier bases. Collaborations also include working closer with their suppliers, in that they are outsourcing some activities by making use of their expertise. As these companies cut costs on R&D, they are also increasing their dependence on a smaller number of suppliers, hence the need to carefully manage them. This includes more coordination, better communication, better planning and interaction.

Supplier Relationship Management

The three companies' supplier selection criteria is similar, where ABB M&G considers the total landed cost based on quality, price, cooperation, performance and delivery. Scania CV’s criterion is based on the suppliers ability to deliver the right quality, quantity and on time. Volvo CE’s criterion focuses on safety, quality, environment and delivery. The ISO certificate is a requirement by all the three companies. In developing relationships with suppliers the three companies’ respondents indicated that trust is very vital for a relationship to work. The companies build these relationships over time, if the suppliers are cooperative and helping the companies achieve their goals, then the probability of them being in partnership is high. They do not enter into alliances with suppliers they are not familiar with. This is in line with Hausman’s theory that for a relationship to be successful there is need for cooperation, adaptability, quality of performance, satisfaction, durability and a combination of trust and commitment on both sides. This theory is in agreement with Campbell who also points out that
managers should pay extra attention to their partners' environment, which include; competition, corporate culture, other relationships etc, as well as Ford who states that company relationships are mixed blessings, meaning, a company's success or failure is evident in how well they handle and manage them. ABB M&G made it explicitly clear that management looks at their suppliers' environment as they choose them. If they are involved with suppliers that are unethical, then they will not be entertained in any partnership. Scania CV and Volvo CE implied it when they indicated that suppliers need to follow their code of conduct and core values to be considered partners.

The empirical findings suggest that all the three companies have both close and arms-length relationships. ABB M&G indicated the need to avoid dependence on one supplier by trying to use different suppliers even for key components. Whereas both Scania CV and Volvo CE indicated that they are moving towards reducing their supplier base so that they have closer relationships with their key suppliers and reduce costs. However, it is apparent that all the three companies are aware of the risks and benefits involved with either relationship orientations. They all share the same sentiments on how close relationships are a good way of reducing costs. This is in line with Ford's statement that relationships in B2B markets are gradually getting more involving due to the realization of its usefulness in cutting down costs, time as well as joint product development. This is because these firms are keen on introducing and using effective tools in managing the supplier relationships.

The support suppliers are kept at arm's-length or low involvement because the relationships are being developed. They are purposely kept at "arms-length" so that purchases of certain parts or commodities are spread among a variety and decrease dependencies. The relationships that these firms are at "arms-length" with, involve suppliers that they are in very minimal collaboration with, just as Hoyt indicated, the more restrictive a relationship is, the less flexible and the more opportunistic, hence low levels of trust and less collaboration. The three firms do not rely on single suppliers for key components, this is due to the risks involved in relying on a few.

All three firms also have close relationships which are considered "high involvement" relationships, unlike in the "arms-length" these relationships require commitment, trust and interdependencies to enable coordination of activities. This orientation is mainly with suppliers they highly depend on for resources like designs and joint product development. For these relationships to get to this level there is need for development over time. The three companies indicated that the level of involvement depends on the level of importance of components needed. This coincides with Ford's view that the necessity to coordinate requires adaptation of certain activities involved and the commitment to invest by parties involved.

The three companies might be reducing their supplier bases to increase relationship involvement, but none of them is relying on a single supplier. But their reasons for reducing their supplier base is in line with Ford that, it reduces costs and enhances
product development, the outsourcing company has fewer functions to focus on because of the collaboration, it is time saving because the buyer has fewer relationships to focus on as such gaining on economies of scale.

From the empirical findings, it is eminent that all the three companies have a relationship portfolio where they rank suppliers in order to determine their capacity to supply them with components. As described by Ford et al., the perception behind relationship portfolio is that various buyer relationships of the company symbolizes a significant and most expensive valuable asset acquired. A fundamental aspect in managing portfolios is the ability to locate appropriate supplier criterion to handle issues concerning resource distribution. Numerous suppliers distribute their resources on the basis of customer relationship criterion that are not apparent or precise.

These relationship portfolios help the companies in evaluating the kind of relationship involvements they need to have with their various suppliers and is thus related to Wynstra & Pierick, in their study on portfolio and different supplier interfaces, where the authors explained that supplier involvement portfolio is aimed at providing support to set priorities with regards to supplier involvement in development projects for new products. In order for it to be carried out requires utmost support in management capacity, which includes time and money spent to communicate or co-ordinate, whilst making the best possible use of suppliers’ expertise. This similarity in the need of a relationship portfolio for these multinational companies can be connected to Baily’s view that more and more, customers strive to put together objective portfolio of consistent, beneficial and economical suppliers. In order to achieve this, such customers need to be more involved in managing external production and also build up new suppliers than compare bids or selecting the cheapest.

Uncertainties

The empirical findings showed that all the three companies do have uncertainties in their relationships with suppliers, but understand its inevitability. This can be related to what Ford suggests that uncertainty to a degree stems from the real circumstance, however the course of interaction in such relations is also dependent on it. This is also seen in what the IMP Group explains that uncertainties is the circumstance of having inadequate knowledge which makes it impossible to precisely explain the current, potential or likely result. The kind of uncertainty these companies have in common is customer uncertainty and this is what Ford et al., emphasized as the issue of buying and having inadequate knowledge of what is being purchased and the quantity needed, whether the kind of offerings accessible is rationally constant and also whether there are other suppliers to weigh purchasing options.

Transaction uncertainties from the part of the suppliers were also seen in all three companies as all of them have their core values in their different operations, which Ford explains as involving issues concerning logistics where the products are transported.
physically, legally and on time from suppliers and delivered to customers. With ABB M&G, the uncertainties are supplier's compliance with their TLC which includes price, quality, cooperation and performance that makes it enhance its company reputation on high end products, lead times and also on time delivery. For Scania CV, the uncertainties are suppliers’ performance in terms of quality on technical and logistical deviation the company is looking at as well as deliveries. In the case of Volvo CE, the uncertainties are suppliers’ fulfillment to deliver an offering that the company wants or is expecting. These similarities of transaction uncertainty the companies have could also be related to Ford et al., where the authors mentioned that customers mostly make huge purchases based on the available offerings from various suppliers it has relationships with. However, these customers might always be unsure as to whether these suppliers shall accomplish what was assured in providing the right offer on time, in the right place, performance, at the price that was promised and be consistent with these aspects.

All three companies also have market uncertainties where they use different suppliers in their relationship portfolios, whether close or arms-length to source for components. This idea by the companies is related to Ford in that when customers perceive their suppliers as alternatives to acquire resources, it is dependent on the level of dissimilarity involving the supplier's heterogeneity and the ways in which such difference transform eventually. In the case of ABB M&G, is eminent that the company uses their C suppliers as back-up or sample to reduce any uncertainties that could arise from their key suppliers in sourcing for components. With Scania CV, market uncertainty happens when the company realizes that some of their key suppliers might not be able to supply some vital components. For Volvo CE, the market uncertainty could be seen in the way the company uses their Backup suppliers or New suppliers to source for components and avoid uncertainties. These views from the companies could be related to Ford et al., where the authors indicate that customers are frequently faced with extensive and diverse solutions to a specific problem from various sources. On the other hand, customers might discover the rapid change in technology in the area so as to facilitate the latest and diverse solutions which are fast growing within the marketplace.

Our empirical findings also showed that these companies have the abilities to make demands to their suppliers regarding the kind of offerings they expect to receive. This could be related to Ford et al., in what the authors emphasized that trying to influence the uncertainties of suppliers by making emphasis on the randomness of demand from other buyers for the offerings from such supplier’s, which might convince the suppliers to value them. With ABB M&G, the company's focus on TLC is on the basis of its customers’ demands for the high end products. With Scania CV, the company monitors the performance of its suppliers that are not performing to the expected standard for quality, hence collaborating to provide what is required. These aspects from ABB M&G and Scania CV is what Ford et al., mentioned that customer’s demand abilities allows them to give advice to suppliers regarding the kind of offers they must produce, as well as giving them the quantity and sort of demand required. These demand abilities on the part of customers is due to high-volume requirements, however it might also be the
reason that they understand how to construct supplier’s offerings and to incorporate them in their operations. As with Volvo CE, the supplier ability aspect is seen, where some key suppliers are design owners, thus the company collaborates with them for the component in order to avoid the problem of supplying the wrong offerings. This view from Volvo CE could be related to Ford et al., where the authors describe that supplier’s ability in designing, developing as well as assembling offerings from various sources as a result of providing solutions to customers’ problems. These include addressing customers’ problem regarding offerings such as product, service, advice, adaptation, logistics and price as well as costs, however aspects such as advising or adapting are probably going to be crucial. Such problem solving abilities from suppliers could be important to customers with difficult or vital issues to deal with and also when they are having a need or network uncertainty.
7 CONCLUSION

From the analysis above, we have realized that there are so many similarities in the ways the three companies; ABB M&G, Scania CV and Volvo CE perceive close or arms-length relationships with their suppliers.

When it comes to purchasing strategies, the analysis showed that all the three companies have Strategic Supply Managers or Global Purchasing Managers in their operations. The responsibility of these people is to enhance sourcing efficiency by selecting the key suppliers for the components needed from different parts of the globe in their manufacturing operations. This shows that they put the purchasing function in high regard. The three firms have both close and “arms-length” relationships which clearly help them decrease dependencies on certain suppliers. Despite them having suppliers that they prefer more, they also have advanced R&D units to support the production and development functions. The three companies can choose to outsource due to better expertise, which will not only reduce costs but for better quality as well or because the suppliers are in a better place to get hold of the material or components required. This helps them in their supplier selection criterion as they put emphasis on quality in their designs or end products.

In supplier relationship management the analysis showed that the companies are highly involved with their key suppliers for their components and want to maintain this. The companies also have suppliers in their operations that they collaborate with in certain circumstances, but at low levels, as these suppliers are not their major ones as guided by their relationship portfolios. The analysis also showed that all the three companies had both high and low levels of supplier relationship involvement. The level of involvement was dependent on the importance attached to the component or material needed, the higher the importance, the higher the involvement, the lesser the importance the lower the involvement. All the three companies do have a high degree of collaboration with their key suppliers in that they make visitations to each other's plants and have regular contact. These collaborations are seen as ways to develop and maintain their relationships with suppliers in the long-term. There is also trust that all these companies bestow in their relationships with suppliers with the belief that it is necessary in any relationship.

For uncertainties, the analysis shows that all three companies acknowledge that it is unavoidable, but they tend to motivate their key suppliers and look at ways forward in solving problems together that enhances the relationship in the long run. ABB M&G, Scania CV & Volvo CE all have close and arms-length relationship orientations with their suppliers to manage unforeseen uncertainties.

All in all, the analysis shows that the three companies have seen the benefits of both relationship orientations, however, they all made it clear that close relationships is their preferred orientation when it comes to key components where it is necessary to be highly involved.
Based on the preceding conclusion, the authors feel that ABB M&G, Scania CV and Volvo CE are clearly proactive in the way they are handling their global purchasing strategies, they have well established criteria on how to select and manage their suppliers. The fact that they all have supplier relationship portfolios in place shows that they are well organized and know how to manage various suppliers in their industry, enabling them to reduce uncertainties. The authors however, have the following recommendations for the companies.

They continuously monitor their suppliers and sub-suppliers closely so as to safeguard themselves from any unethical practices that could jeopardize their reputation and operation. This is because most competitors in the market monitor closely the activities of their rivals and benefit from any downfalls that might jeopardise their businesses.

They maintain their strategic ways of global sourcing for their components, in order to avoid dependencies on certain key suppliers as there will always be a challenge in the market and competitors could be willing to put a lot of money and effort just to gain the loyalty of key suppliers that are very focused on cost, price or quality of their materials.

Monitoring suppliers’ performance is a prerequisite for operational efficiency and all the companies should always make sure that the kind of demand made especially in terms of quality and design is what they actually receive and on due date, otherwise it may be costly for them.

In making reference to theory and the empirical findings, we strongly recommend that they continue managing these relationships the way they are doing as it is beneficial in their operations.

SUGGESTION FOR FUTURE RESEARCH

This study is based only on three purchasing firms’ perceptions as to how they perceive either close or arms-length relationships with their suppliers. However, it would have been more insightful if the supplying firms’ perceptions, as to how they perceive these kinds of relationships with the companies this study was conducted on, were also incorporated. Therefore, the authors suggest this for future research.
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**People**

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Carlevand, Niclas., Project Buyer, Volvo CE, Eskilstuna, Sweden

De Mander, Peter., Global Core Manager, Volvo CE Eskilstuna, Sweden

Grimero, Tobias., Local Division Supply Manager, Discrete Automation and Motion, Motors and Generators, ABB Västerås, Sweden.
Interview Guide

Purchasing Strategies

- What are your key components
- How do you acquire them?
- Who are the personnel involved in acquisition of your key components?
- Are there special qualities or skills these personnel should have in order to deal with global purchasing?
- What criteria do you use to choose suppliers for your key components/products?
- What is your annual expenditure on your key components?

Supplier Relationship Management

- How do you develop relationships with your key suppliers?
- When choosing a supplier for key components what matters most?
- How involved are your key suppliers in your operations?
- How would you describe your relationship with your key suppliers?
- Which of your key relationships are either high or low involvement?
- How do you evaluate your relationships with your key suppliers? Do you have a relationship portfolio?
- To what extent does ABB/SCANIA CV/VOLVO CE collaborate with its key suppliers in product development? How often is this collaboration?
- What is your approach in managing key suppliers? Please elaborate
- How significant is trust in your relationships?

Uncertainties

- How many suppliers do you have for your products? Why?
- What are the uncertainties faced with your key suppliers?
- What are the factors that influence your relationship with these suppliers?
- How do you settle disputes with your suppliers?
- What are the biggest problems ABB/SCANIA CV/VOLVO CE has encountered with suppliers?