Best Practice to ODM Outsourcing

A thesis based on GN Netcom’s outsourcing of Jabra products

"It is not the strongest of the species that survive nor the most intelligent, but the one most responsive to change".

Charles Darwin

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Executive summary

Over the last decades there has been an increase in outsourcing activities. It started off as outsourcing of standardized parts, but now also include value-adding activities such as new product development and R&D. In today’s electronics industry innovation tasks are carried out by various value chain participants, such as Original Equipment Manufacturers (OEMs) and Original Design Manufacturers (ODMs). This thesis focuses on outsourcing to ODM suppliers. Based on a single case study of the Danish Company GN Netcom, the thesis investigates the research question of how GN Netcom can optimize its ODM outsourcing. In order to answer the research question, the thesis seeks to create a best practice to ODM outsourcing.

In creating the best practice literature within the fields of ODM outsourcing, new product development and R&D outsourcing, as well as integration, have been taken into account. Based on 7 frameworks a thesis model has been created to analyze the empirical data obtained at GN Netcom. This model also serves as a base, together with the case of GN Netcom, for the best practice.

It was found that there were several gaps between theory and practice, however, due to the small sample size, it is difficult to determine if the findings are generalizable to other companies outsourcing to ODMs in the electronics industry. However, it is believed that several of the issues are generalizable and a best practice to ODM outsourcing can constitute of the following topics:

- Outsourcing to ODM can be driven by cost, knowledge or both factors at the same time
- There are pains and gains related to outsourcing of R&D activities e.g. increasing managerial attention towards supervising external projects and the risk of over outsourcing.
- Firms outsourcing to ODMs needs to be aware of issues specific to the ODM industry such as high product similarity, ODMs can become dependent on OEMs, quality defects and ODMs competing with OEMs by introducing their own brand.
- The relation to ODM is rarely managed though arm’s length transactions or full integration. As complexity increases it calls for closer collaboration between the ODM and OEM. Yet, the relation rarely ends up in full integration.
- Outsourcing of low-complexity products can be placed at a strategic supplier in order to reduce cost.
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0. Definitions:

This section will provide definitions of the different terms used in this thesis. These definitions are based on our own understanding as well as definitions in academia.

**Original Equipment Manufacturer (OEM):** OEM is defined as a company that produces and sells products under its own brand name. The company can also buy products or parts from other companies and incorporate or re-brand the product under its own name. (Y. Ho & C. Lin 2009).

**Electronic Manufacturer Service (EMS):** An EMS is defined as a company that designs, tests, manufacturers, distributes electronic components and handles all the assembling for OEMs (E. Zhai, Y. Shi, M. Gregory, 2007).

**Contract Manufacturing (CM):** A CM is defined as a company that produces goods by one firm, under the label or brand of another. Contract manufacturing offers services to many different companies (even competing ones) based on their own designs formulas and specification. It is also called private label manufacturing. In this thesis we see contract manufacturer as an ODM (B. Arruñada & X. Vázquez, 2006).

**Original Design Manufacturer (ODM):** An ODM is similar to a contract manufacturer (CM), the difference is that the ODM typically owns the intellectual property (IP) right for the product. A CM uses the customer’s designs and IP. ODMs can often just specialize in few product categories (Ho & Lin 2009).

**Contract Design Manufacturer (CDM):** Is defined as a contract manufacturer that designs the product and is essentially the same as a CM or an ODM (Zhai et al., 2007).

**Turn-key supplier:** Is a supplier that produces customized products for buyers and uses flexible machinery to pool capacity for different customers (G. Gereffi, J. Humphrey, T. Sturgeon, 2005).

In this thesis we have chosen to use the term ODM for CM, CDM and turnkey suppliers to avoid too much confusion.
**Jabra:** Jabra is a brand owned by GN Great Nordic. When we write about Jabra in this thesis it refers to products sold under the brand itself.

**GN Netcom:** Is the owner and employer of the people managing the brand Jabra.

**Research and Development (R&D):** The function in the organization that develops new knowledge and ideas and operationalizes the ideas to form the underlying knowledge on which product, service and process designs are based (N. Slack, 2013).

**Off the shelf products:** Are defined as ready-made products that OEMs can source from a non-strategic supplier and sell under their own brands. The definition is adopted from GN Netcom.

**New product development (NPD):** Outsourcing of development activities for developing new products (goods and/or services), where all or the innovative part of the NPD process is purchased externally according to a contract from organizational units separate from the outsourcing firm (Rundquist, 2008b).

**Strategic Alliance:** A strategic alliance is defined as a partnership between two or more parties working towards a common goal within certain aspect of their businesses. The two parties remain separate companies (Arruñada & Vázquez, 2006). In this thesis a strategic alliance is seen as the same as a **strategic partnership.**

**Integration:** We define supplier integration as the interdependence of two parties working towards a common goal. Furthermore, full supplier integration is a state of synchronization between supplier and buyer, which constitutes an organization (A. Das, R. Narasimhan & Talluri, 2006).
1. Introduction

Over the last three decades the magnitude of trade across national boundaries and geographical areas has led to a greater degree of interconnectedness and interdependence of people and countries and their respective economies. Deregulation and trade liberation have secured the flow of goods, services, finances and knowledge, which in return has created multinational corporations utilizing the opportunities globalization offers. Consequently, firms have to compete for scarce resources and are under large pressure to create value for their stakeholders. To meet these targets managers have for the last two decades to a larger extent looked towards outsourcing. As a result, a global trend towards vertical disintegration of the value chain has today become common practice (N. Shin, K. Kraemer, & J. Dedrick, 2009).

Essentially, the most successful companies look to improve efficiency and reduce the number of non-core activities by looking for suppliers and partners to contribute to the competitiveness of the firm (J. Howells, 1999). What started off as outsourcing of manufacturing activities and standardized services now includes outsourcing of high-value added tasks such as new product development and R&D activities (U. Arnold, 2002).

The continuous demand for increasing market shares, improving profit margins, reducing operational costs and improving innovation performance of the firm has directed OEMs to source knowledge outside the boundaries of the firm. This has been the trend in high-tech industries characterized by diminishing innovation productivity among leading firms, mixed with the element of increasing technological complexity and shorter product life cycles in industries such as the PC and mobile handset industry (D. Teese, 1992) Consequently, the general trend over the last decade or two has been that lead firms in the industry have become more dependent on their suppliers’ ability to bring new technology and innovation to the table (Shin et al., 2009).

In general, outsourcing of R&D activities is a relatively new phenomenon. It has been on the rise for years and a growing body of research has focused on which activities can be outsourced in respect to R&D tasks without diluting firm-specific knowledge (C. Grimpe & U. Kaiser, 2010). From a resource-based view, R&D outsourcing may provide OEMs with access to resources not available internally (C. Weigelt, 2009). Another argument in favour of outsourcing of R&D tasks
builds on the argument that firms can improve R&D efficiency (J. Barney, 1999 & B. Wernefeldt, 1984)

Furthermore, closer integration with suppliers and access to specialized skills and creativity can enhance the innovation performance of the firm (Grimpe & Kaiser, 2010). At the same time firms need to balance the gains from outsourcing of R&D activities against the pains it can cause (Grimpe & Kaiser, 2010). Relying heavily on external knowledge can lead to a situation where the knowledge base of the firm suffers from dilution, making it less competitive (Grimpe & Kaiser, 2010). In addition, the risk of IP infringement and underestimation of transaction costs can easily outweigh the benefits stemming from outsourcing (Rundquist & Halili, 2010). Therefore, efforts have been made to understand which R&D activities can be outsourced, to what extent they can be outsourced, and what should simply be kept in-house (Howells, 2006 and Howells, J., Gagliardi, D. & Malik, K, 2008).

This trend has led to the birth of specialized suppliers that gradually have acquired the skills and knowledge to perform outsourced activities more efficiently and effectively than an Original Equipment Manufacturer (OEM) is capable of. In turn, it has given rise to the Original Design Manufacturers (ODMs) (Q. Feng & L. X. Lu, 2012), which is a popular mode of production in the electronic industry. It started when engineers in East Asia gained knowledge and know-how about how to produce their own products. This knowledge was developed through years of learning from OEMs, FDIs and Western outsourcing to Asia. The birth of the ODMs has been a game changer, which has disrupted the status quo in the organizational dynamics of the electronics supply chain (O. Hilmola, P. Helo & M. Holweg, 2004).

The underlying factor for OEMs in outsourcing production and development activities to ODMs has been driven by cost. By outsourcing parts or entire processes to ODM suppliers, the customers can free up capital and reduce labour cost and focus on high value adding activities in the value chain (R. Mudambi, 2010). Sometimes it can be cheaper to outsource NPD projects to ODMs rather than developing it in-house, leading back to ODMs specialized capabilities. Consequently, purchasing a product can also help an OEM sustain a competitive advantage, as it can buy its way into technology that often would take a long time to develop in-house (Feng & Lu, 2012). It also means that an OEM is able to expand its product portfolio by entering into new product categories and
markets (Arruñada & Vázquez, 2006). This has made it attractive for many OEMs to use ODM suppliers that in turn have grown rapidly during the last decade (Feng & Lu, 2012).

1.1. Case introduction

For the Danish company GN Netcom, ODM outsourcing of its Jabra products is playing an increasingly important part in its strategic focus and is expected to drive growth and profitability in the coming years. Today, Jabra is the world’s leading brand in hands free audio communication, with a market share of 30%. Jabra offers quality wireless communication products for the Mobile consumer segment. It generates about 13% of the revenue of GN Great Nordic and is one of the brands that is expected to drive growth and profitability in coming years.

Outsourcing to ODMs began in 2005, and in 2012 it became evident that if Jabra was to survive GN Netcom would have to sustain growth by innovating more products for the same operational cost. This was the beginning of Project Gazelle. Project Gazelle’s main task was to create a strategy on how to make ODM outsourcing an integrated entity within the organization.

During our research it became evident that there were quite a few problems still related to ODM outsourcing. The strategy of outsourcing low-complexity products was not being fully implemented. Furthermore, there were difficulties in finding the right suppliers. Many of the decisions regarding the outsourcing process such as assessing which products were suitable for outsourcing and finding the right suppliers for making these was done on an ad hoc basis. Furthermore, managing the relationship with the ODMs was a challenging process due to issues such as quality defects and untrustworthiness of the suppliers.

Taking the above mentioned issues into consideration we started to wonder how GN Netcom could improve its ODM outsourcing to make it an integral entity within its business operations. We therefore decided to focus on the following research questions:
1.2. Primary and secondary Research Question

The primary question that is attempted being answered in this thesis is:

*How can GN Netcom optimize outsourcing of Jabra products to Original Design Manufacturers?*

To answer this question we reviewed an extensive amount of literature within areas of R&D outsourcing, New Product Development, outsourcing to Original Design Manufacturers as well as generic outsourcing theories. We quickly discovered that there were no theories or concepts covering the specific scope of the case. Thus, we have combined several frameworks into one model, which will be the foundation of the thesis. With the primary research question we intend to examine how a firm can optimize outsourcing in the electronics industry to an ODM from a strategic point of view. In our quest to create the thesis framework we realized that the availability of literature focusing on optimization of outsourcing to ODM was limited. We also wondered how we could take multiple problems in the outsourcing process into account, as well how we could combine these problems. We therefore decided to create a Best Practice approach to ODM outsourcing, which led us to the following secondary research question

*What could constitute a best practice for Original Design Manufacturer outsourcing in the electronics industry?*

A best practice for ODM outsourcing will be built on findings from our analysis that will follow the thesis framework of the assignment. By applying our framework to GN Netcom we move from a theoretical discussion to an operational one. By comparing our findings from the analysis with the theoretical foundation of the thesis, we can create a best practice to ODM outsourcing based on our case company’s approach to ODM outsourcing. A best practice approach to ODM outsourcing also contributes to the scarce amount of literature within this field of research.
2. Methods

This section addresses the research strategy of the thesis, as well as how the empirical investigation has been conducted. Furthermore, it outlines the philosophical assumptions the research is conducted under. The section is structured as follows: First we will elaborate on the research philosophy and design and motivation for the case. Second, the empirical data will be discussed, as well as the validity and reliability of the data.

2.1. Research philosophy and design

The research philosophy in this project takes on an interpretivist approach. This epistemological approach has been chosen because of its emphasis on conducting research among people instead of objects (M. Saunders, P. Lewis & A. Thornhill, 2007). This approach allows us to interpret the social roles relevant for this case study. The interpretivist approach views business situations as complex and unique. These situations are caused by human behaviour, which in turn cannot be predicted and therefore is context dependent as well as highly useful in case studies (B. Flyvbjerg, 2001). In turn, this may cause problems with generalizability, but in the interpretivist approach that is not of crucial importance (Saunders et al., 2007). Everything is in a stage of flux and a business situation might not be the same today, as it is in a year.

The research is based on a single in-depth case study. R.K. Yin (2003) defines a case study as an “empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (pp. 13). In line with K.M. Eisenhardt (1989), this research focuses on three different individuals in the GN Great Nordic organization, who represents each their group. With the research, we seek to identify a best practice and discuss the possibility of optimizing GN Netcom’s outsourcing of Jabra products to ODMs. We use the theory as a foundation to analyse GN Netcom’s approach to outsourcing. In doing so we use a deductive strategy, as we, based on a theoretical foundation, have certain assumptions that we analyse and test based on the theoretical foundation.

Quantitative and qualitative sources are used, making the research mixed methods. Methodological, researcher and theoretical triangulation is also used in order make the research more valid. Two
directors and a Vice President within GN Netcom have been used for empirical data, as well as other archival data such as yearly reports, power point slides and consultancy reports.

2.2. The Case

GN Netcom was selected due to its complex relation with ODM outsourcing. The case study constitutes a contemporary phenomenon with its focus on R&D outsourcing, using ODMs and buying off the shelf products. Many companies within the electronics industry are involved in outsourcing of R&D and whole products lines, and could be expected to have encountered similar problems as GN Netcom. Furthermore, this case is particularly interesting because of GN Netcom’s approach to ODM outsourcing, which is described as “do or die” for the company.

The case study is situated with a context of blurred boundaries in terms of outsourcing of R&D and NPD to an ODM, which makes it interesting to analyze. Furthermore, the case is unique in the sense that GN Netcom has been the leading company in the CC&O and Mobile equipment and communications segment in the electronics industry and has held a monopoly for many years. However, this has been challenged and now the company is changing its business model towards ODM outsourcing.

The contact to GN Netcom was established through our supervisor, who had met the Director of Global Sourcing (hereafter Director of GS) at an outsourcing network meeting. He presented the company and the problems it experienced with ODM outsourcing as well as introduced us to Director of GS, who became our contact person within the company.

2.3. Empirical approach

The sources of data used in this study are both primary and secondary. Primary data has been retrieved from the company website, slide shows, yearly reports and interviews with the Director of GS, Senior Director of Global Supply Chain Management (hereafter Senior Director of GSCM) and Vice President of R&D (hereafter VP of R&D) in GN Netcom. The secondary data used in this thesis was taken from peer-reviewed articles, a consultancy report and a few book chapters found on the search engines such as Ebesco online and Google Scholar, as well as literature provided by the thesis supervisor.
According to Yin (2003) there are six sources of evidence for data collection in a case study: Documentation, archival records, interviews, direct observations, participant observation, and physical artifacts. In this thesis we have not included participant observation or investigated any physical artifacts. However, we don’t believe that the thesis’ validity will suffer, as physical artifacts or observations are not directly related to aim of the thesis.

2.4 Documentation and archival records
Before interviewing we were given power points slides that were presented at an outsourcing network meeting. These slides provided very good insight into the problem GN Netcom faced regarding ODM outsourcing. These slides contained information about the history of the company, sales volumes, product categories, stakeholder information and general problems regarding ODM outsourcing in the company.

2.5. Interviews
Six interviews were conducted from mid-May 2013 to primo August 2013. Table 1 contains information on the three interviewees, their function in GN Netcom and a brief summary of the interviews.

<table>
<thead>
<tr>
<th>Date</th>
<th>Interviewee</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>23/5 2013</td>
<td>Director of GS</td>
<td>The first interview was very preliminary in its structure and focused mostly on Project Gazelle (optimization of GN Netcom’s ODM outsourcing). The interview was not recorded, but notes were taken.</td>
</tr>
<tr>
<td>5/6 2013</td>
<td>Director of GS and Senior Director of GSCM</td>
<td>The second interview was conducted with both Director of GS and Senior Director of GSCM and focused on Project Gazelle and ODM outsourcing.</td>
</tr>
<tr>
<td>13/6 2013</td>
<td>Senior Director of GSCM</td>
<td>The third interview was conducted to get more a in-depth understanding of the supply chain aspects of ODM outsourcing</td>
</tr>
<tr>
<td>13/6 2013</td>
<td>Director of GS</td>
<td>The fourth interview focused on project Gazelle and the issues related to ODMs from managerial point of view.</td>
</tr>
<tr>
<td>30/7 2013</td>
<td>VP of R&amp;D</td>
<td>The fifth interview was conducted to get a more in-depth understanding of R&amp;D and the departments role in ODM outsourcing</td>
</tr>
</tbody>
</table>
Table 1. An overview on the three interviewees, their function in GN Netcom and a brief sum-up on the interviews.

Prior to any interviews the interviewees received a list of topics and questions, as well as a brief introduction to the topic, in order for them to prepare in advance. Furthermore, each interview began with an outlining of the main topic of the thesis in case the interviewees had not read the information sent to them.

The interviews were conducted in a semi-structured format in the form of open-ended questions. In addition, as recommended by Yin (2003), interviews were conducted in an informal setting. This way of doing interviews is more dynamic in its nature and allows for asking more in-depth questions to answer, as compared to a structured interview (Saunders et al., 2007). The main theme of the interviews was that of outsourcing to ODM, both in terms of new product development, supply chain management and R&D. This method ensured that different points of views from different functions in the company were taken into consideration. In addition, it made the data more reliable. As the interviews progressed, the questions became gradually more structured as themes emerged within the data. For that reason, much of the content for subsequent interviews with a given informant focused on themes within the emerging data structure. This allowed for delving deeper into the underlying procedures and mechanism for ODM outsourcing and the underlying problems GN Netcom experienced.

It was preferred to interview the different parties individually in order to make sure the other parties did not influence their answers. However, the interview conducted with Director of GS and Senior Director of GSCM sparked interactions between the two and they were able to elaborate on each other’s answers creating a situation of discussion among the two. It was later noted that opinions were expressed more freely in the individual interview session.

The interviews with Director of GS and VP of R&D were conducted in Danish. This was done in order to avoid misunderstandings. Furthermore, since Danish is the first language for both persons, it allows them to express their thoughts in a more accurate language. Interviews with Senior Director of GSCM and Director of GS and Senior Director of GSCM together were conducted in
English, as Senior Director of GSCM is Swedish, and the interviewers are not proficient in Swedish. Senior Director of GSCM has worked many years overseas and speaks fluent English. Therefore, he was able to accurately express his thoughts and opinions in English in an accurate language.

The interviews were recorded and transcribed verbatim, with the exception of the first preliminary interview with Director of GS. The interviewees tried to avoid misunderstandings by asking follow-up questions and ask the interviewees to elaborate when something was unclear. The transcription allowed us a more accurate analysis and the use of quotations.

2.6. Coding
In order to assess the amount of data collected from the 5 interviewees, the data was coded in terms of topics, thereby using conceptual coding. When a topic was identified, everything related to that topic was collected in one document, hereafter cross-coded where other topics were identified as well. This has been done in accordance with M. Miles & A. Huberman (1994) who state that codes can be used to assign meaning to data and information collected, and this approach is the first step toward differentiating and combining data, as well as reflecting upon it.

A small database was created with the differently coded data, which we were able to use in the analysis. By creating a database we also ensured that all relevant information on the topics was properly recorded. The coding enabled us to create a bigger overview of the different topics and thereby a better foundation for a more thorough analysis.

2.7. Triangulation
Data triangulation was used in this thesis in order to increase the validity of the data used. The main sources of data used are in-depth interviews collected over 3 months, which have been combined with different written material. Three different kinds of triangulation were applied; data triangulation, theory triangulation and methods triangulation (A. Guion, 2002). Different sources were structured in such a way to provide retrieval for later investigators, that is, to enable the replication of the case study (Yin, 2003).
By interviewing three different stakeholders, each responsible for different areas in the organization, we ensured that we got insights into what they were thinking about ODM outsourcing. Holding the opinions, arguments and facts we got from the interviews up against each other ensured data triangulation and increased the validity of the findings, as we were able to witness both instances of agreement and disagreement as to ODM outsourcing. Furthermore, these findings are being held up against the written material provided by GN Netcom.

To further increase the validity of the thesis we have used different concepts and constructs from various areas within R&D, NPD, ODM and supplier integration literature. This literature brings different perspectives that we have used to analyse and interpret the data. By using different theories from different areas of the literature to support each other, we ensure theory triangulation and thereby increase the validity of the research.

Methodological triangulation has also been used as we use both qualitative and quantitative data. These findings are held up against each other, to either support each other or show where they diverge. When similar results are found we believe that we can ensure the validity through this approach of triangulation.

We recognize that the thesis can suffer from the lack of a more thorough methodological triangulation e.g. lack of quantitative sources, but it was not possible for us to be granted access to further quantitative sources. We could also have included more stakeholders, such as ODMs in order to create a better best practice approach, which in turn also would have increased the validity. However, we believe that the research conducted in this thesis is sound and applicable for future research.

2.8. Reliability

According to Saunders et al. (2007) reliability refers to “the extent to which your data collection techniques or analysis procedures will yield consistent findings” (pp. 156), which also means that the data needs to be repeatable and replicable.

The data collection methods (qualitative semi-structured interviews) adopted in this thesis are based on established research and acknowledged methods. However, as it is impossible to conduct the
same study under the exact same circumstances, the likelihood of replication is precluded. Furthermore, when this thesis is based on a single case study it means the best practice created in this thesis will not be tested throughout the electronics industry.

Different biases can occur and this could have been the case when we interviewed both Director of GS and Senior Director of GSCM. However, by conducting follow-up interviews, the interviewees had a chance to express their views freely. There are also biases in terms of what the interviewees can tell us due to confidentiality issues and what image they want to give of the company. This of course is hard to detect, but by getting different views from different departments, the issue is somewhat addressed.

Interviews were conducted prior to and subsequently after an important meeting about the structure of the ODM outsourcing. After 1st July the interviewees seemed to provide more clear and precise answers to how everything was being outsourced to ODM. However, it is uncertain if that is because we asked clearer questions based on our recent in-depth knowledge or if VP of R&D in general provided more precise answers. However, we believe that our data still is applicable and reliable, as we still got the same answers, albeit with a more thorough explanation.

Lastly, the findings are of course shaped by our perceptions and personal characteristics. Attempt has been made as much as possible not to influence the findings, by being objective towards the data we have collected. The empirical data has been transcribed in order to create a more accurate analysis. The transcription also improves the transparency in how we made sense of the raw data. Quotes are taken directly from the transcription, creating a more easy way to interpret what was being said.

2.9. Validity
Saunders et al. (2007) states validity is the extent data collection method or methods measure what they are supposed to measure. Validity also distinguishes between internal validity and external validity. Internal validity refers to the ability of the thesis’s data collection method as well as the interpretation that is done on the basis of this (Saunders et al. 2007). External validity refers to the generalizability of the study. Internal and external validity are linked and cannot exist without each other.
2.9.1. Internal validity
To increase internal validity, we defined the unit of analysis, the case company's outsourcing of various activities to different ODM suppliers. This allowed us collect data in a more structured manner and ask questions related to the research questions. Our unit of analysis was also determined by looking at different power point slides that were available to us before the first interview. This helped us design and construct interview guides.

By using multiple sources of data and triangulation, the validity of the research increased, as we were able to achieve the same findings with different methods. The coding technique makes it possible to compare data, create an overview as well as making sure we use the relevant quotes.

What further adds to the validity is that we were two investigators during the interviews. One would take notes and observe, while the other would ask questions. According to Eisenhardt (1989) there are two advantages of being multiple investigators. The first is that the two team members will have complementary insights, and often different perspectives that will increase the likelihood of capitalizing on any novel insights. Second, the different observations increase the validity of the findings (Eisenhardt, 1989)

What could decrease the validity of the thesis is that it could suffer from construct validity, a frequent outcome from open-ended questions and the selection of interviewees. However, we have focused on limiting biases such as selection biases, reporting biases and data access, by talking to three respective heads of departments and by thoroughly and critically examining all written material received.

2.9.2. External validity
The point of our research is to create a best practice to ODM outsourcing. The best practice we have built draws on existing concepts and constructs. The generalizability will therefore be tested in terms of the case. One of the problems regarding the study is that we only use a single case study instead of multiple studies (Miles & Huberman, 1994), which makes it hard to test if it can be used in other settings. However, we try to outline our research in a clear manner, which hopefully creates meaningful conclusions that can be replicated in different contexts.
2.10. Choice of literature

The constructs and concepts, which the thesis is based on, have been chosen on the basis of an extensive literature review. The constructs and concepts most suitable for the case were within the scope of outsourcing in terms of R&D, New Product Development, ODM and supplier integration. However, some theories also focused on re-integrating knowledge into the organisation. As this is not relevant or within the scope of this thesis, this has been removed from the analysis.

When studying outsourcing, two theories have proved very important the resource based view (Barney, 1991) and transaction cost economics (O.E. Williamson, 1979). GN Netcom has already made the decision to outsource to ODMs and therefore the analysis will not be grounded in these theories. However, many of the frameworks used in this thesis (Grimpe & Kaiser, 2010), Bensaou (1999) Arruñada & Vázquez (2006) and Feng & Lu (2012) builds on elements from these theories.

We believe that literature on outsourcing of R&D, NPD and to ODMs can be used, as all deals with the outsourcing of knowledge to an internal or external part. R&D only focuses on the knowledge outsourcing, whereas NPD and ODM outsourcing literature also takes into account the manufacturing, which is relevant for us. The supplier integration literature also takes into account the knowledge sharing, which often makes the relationships between the OEM and ODMs more complex.

A complication to the literature has been that there is limited research on ODM outsourcing, which means that the literature that is drawn on is based on different streams of outsourcing literature, as previously mentioned.

2.11. Best practice approach

In this study it is attempted to create a best practice to ODM outsourcing based on theoretical considerations. The best practice is then applied to the case of GN Netcom in order to identify practices and systems (M. Seeger, 2006).

The best practice can form a general set of standards, guidelines, norms, reference points of benchmarks that can be used to improve performance within the electronics industry in addition to inform practice (Seeger, 2006). Because industries are diverse, dynamic and complex and therefore
it is not certain that the findings from the electronics industry are applicable settings (Seeger, 2006). The best practice in this thesis we believe is limited to the electronics industry.

Due to the limited scope of the thesis and limited resources, we were unable to apply our best practice to different firms competing in the same and other industries. We therefore acknowledge the fact that our findings are limited to our case company. In order to increase validity of our findings it is necessary to apply the best practice to firms competing in the same as well as in different industries in order to generalize our findings i.e. develop a best practice approach to ODM outsourcing. However, through our research we have found implications that are essential to create a best practice approach, which then can be further tested.

3. Original Design Manufacturer

3.1. Introduction to Original Design Manufacturers

In this section we will describe what an ODM is, how it works and conducts business. We will look at ODMs in the electronics industry, as these ODMs were some of the first to be established as well as our case company operates in the electronics industry.

An ODM is often responsible for the whole product value chain, from the design and development of the product, to manufacturing, to the end of production (Hilmola et al., 2004). An ODM can therefore offer both the manufacturing of complete products, but also components such as enclosures, plastics and cables. The ODM is also responsible for procurement, hiring of staff and often integrate functions in order to reduce the total time required to bring a new product to market (Feng & Lu, 2012). The time is reduced through communication among designs, engineering and production staff (Hilmola et al., 2004).

One reason for choosing ODM outsourcing is cost, as it was found that OEMs spend up to 70% of a products manufacturing cost in the end of the design process (Feng & Lu, 2012). Integration of design and manufacturing can therefore prove valuable in order to achieve cost reductions for an OEM. The ODM business model is ideal as it combines these by offering both design and manufacturing. Furthermore, OEMs can use ODMs to avoid making investments in fixed assets in terms of capital investments in manufacturing facilities. It was found that on the short run using an
ODM had positive effects on profitability and on the long run OEM was able to accelerate growth through better availability of working capital (Hilmola et al., 2004).

The business model of an ODM is based on licensing own developed technology and IP to OEMs (Yang, D. & Chen, Y., 2013). Often the ODM license the developed technology to many different OEMs, thereby creating economies of scales. The ODM often develop fairly modular products and designs that can be reused in many products (Yang & Chen, 2013). Some ODMs also used the technology towards developing own brands for consumer products (Feng & Lu, 2012). However, Feng & Lu (2012) found that revenues for own brands often contributed very little to the overall revenue of the ODM.

ODMs revenue is generated in the early life cycle services, such as the design and technology phase. The manufacturing phase itself often does not generate as much. This is due to the fact that the ODMs need to compete with the EMS on manufacturing and often EMS can handle larger volumes than the ODMs.

ODMs also compete with EMS in terms of preferred outsourcing modes for OEMs. ODMs can also compete with OEMs on the ODMs own brands. However, the ODM only holds a small fraction of the market, and has not been very successful in developing own brands in general (Feng & Lu, 2012). Many EMS are increasingly forced to merge and acquire new business in order to sustain their sales levels, while it was found that many ODMs had been able to create organic growth and thereby launch their position in the electronics industry (Hilmola et al., 2004).

ODMs tend to specialize in certain types of product categories. However, recently many ODMs have started to spread out their activities and by entering into new products categories (Feng & Lu, 2012). The reason for this is that many of the traditional product segments such as notebooks, computers and motherboards markets have saturated and experienced declining profit margins. In addition, the ODMs are facing pressure from their OEM customers to lower cost. The ODM therefore needs to keep innovating both in their existing categories but also expand business into new product categories (Feng & Lu, 2012).
3.2. The Electronics supply chain

The supply chain within the electronics industry began changing during the 1980s. During the
1980s the demand in the consumer electronics industry not only rose, but also became increasingly
volatile especially for products such as video games and PCs (Hilmola et al., 2004, Arruñada &
Vázquez, 2006).

As a result the first Third Party Logistic partners (TPL) started to evolve. A widespread demand
grew from the bigger PC firms, such as IBM, to enter new markets fast, without having to make
upfront investments in fixed assets. This demand then gave rise to the TPL partners. Doing business
TPL provided cost saving potentials in terms of outsourced distribution operations, such as
transport and warehousing (Hilmola et al., 2004).

In the 1990s the first ODMs were established in the Taiwanese computer industry, where EMSs
developed design capabilities. The know-how came from working closely with OEMs for many
years, as well as the increased education possibilities (Yang & Chen, 2013). Furthermore, the high
concentration of electronics manufacturers and ODMs had spill over effects and gave rise to more
and more ODMs. Typically, electronic ODMs are found in East Asia, in countries such as China,
South Korea, Singapore and Taiwan, where approximately 92% of the world’s ODM manufacturing
takes place (Yang and Chen, 2012). The main driver behind this development was the high product
margins achieved by the selling of own independent brands, as well the control over the whole
product life cycle instead of just parts of it. The ODMs also started offering their own developed
products to the OEMs (Hilmola et al., 2004).

Today the electronics supply chain is still centred around an OEM, which controls the design and
markets the products. The EMSs and TPLs are still supporting the OEMs during the production and
logistics phases. However, TPLs have evolved into also supporting during the modular design phase
by assembling products, which allows postponement in the later stages (Hilmola et al., 2004).

The use of ODMs has also evolved and changed the completion in the industry significantly
(Hilmola et al., 2004). ODMs are able to offer the same services as EMSs and have also started to
develop capabilities that traditionally were within TPLs. Furthermore, a large score of ODMs also
compete directly with OEMs, not only in terms of products, but also in terms of product development and purchasing of organizations.

As illustrated by figure 1, some responsibilities are overlapping, especially those areas normally covered by EMS, of which can be done by an ODM. Traditionally, the OEM carried out product development tasks such as concept designs and designs for manufacturing. However, that service can be offered by an ODM as well. The competitive structure of the electronics supply chain has shifted and become even more competitive than ever.

3.3. The ODM process

The process of ODM outsourcing starts by product bidding. In this way potential customers can assess whether the ODM is the best choice to outsource to. The OEM starts by sending out a Request for Information (RFI) in order to determine the basic conditions. From the RFIs, the OEM chooses the best candidates and sends them a Request for Quotation (RFQ) for a final bid.

However, the ODM can fail to give a comprehensive response to the RFI and the RFQ. Y. Ho & C. Lin (2009) found that this was mostly due to the limited time the ODM was given. The ODM needs to consider product design capabilities, manufacturing capabilities of the factory, and the production schedule for time-to-market, which makes it hard to come up with an accurate answer.
The business of the ODM company can be divided into three stages:

1. Capture: Where the company seeks for more business, replying to RFIs and RFQs. According to Ho & Lin (2009) companies can spend up to 40% of their total costs during this phase.

2. Order planning: In this stage the RFQ plan is carried out. During this stage there is a cost focus, where quality and delivery time are focused on.

3. Order execution: this is also an important stage, as the production phase must proceed effectively and efficiently, in order to satisfy the customer, but also attract business in the future.

4. The Electronics industry

The electronics industry has experienced massive growth within the past 20 years (Hilmola et al., 2004). In 2011 the size of the industry was USD 1.1 trillion in terms of goods sold, which is a quadrupling of the figure in 1991. In addition, the industry has also experienced an enormous growth in outsourcing to both EMS and ODMs, with an annual growth rate of 20%. Jointly, these account for about 40% of all electronics manufacturing assembly (Dingens, T., 2011).

The electronic contract manufacturing industry experienced slow growth in 2011, where sales only rose 8.5% compared to 33.4% in 2010 (Dingens, 2011). The trend will most likely continue 2013 as well. The reduction in profit margins in 2011 is due to intensified competition in new businesses (Dingens, 2011).

The contract electronics outsourcing industry consists of electronics manufacturing services and ODMs. As shown in table 2, forecasts show 2011 landed a revenue of 376.7 billion USD, up from 347.3 billion USD in 2010. According to Dingens (2011), revenue in the industry will continue to rise between 7% and 9% per annum in the years to come. Dingens (2011) forecasts a revenue of 472.3 billion USD in 2014. Most of the industry growth could be contributed to China, which was responsible for 75% of the aggregated industry growth in 2010.
The ODM business is set to grow, albeit not as fast as the EMS segment. Today ODM businesses contribute about 25% of the total industry revenue. In 2016 it is expected that this contribution will have grown by 50%, since 2011 (New Venture Research, 2013).

The shift in production to low-cost regions is starting to wane. Today, OEM customers require their EMS partners to manufacture products near the regions where they are to be sold. For certain high-volume products like mobile phones and PCs, OEMs need to leverage the lowest cost in manufacturing. However, for other products the labour cost differentials are becoming less significant when weighed against the total cost of production (including transportation and logistical challenges).
4.1. Future trends in the electronics industry

According Frost and Sullivan (2012) there will be an increased trend in creating strategic partnership with EMS and ODMs, as well as increased collaboration on design for manufacturing for EMS. Barriers to the electronics industry will decrease, leading to increasing competition. Consequently, OEMs have to rely on ODMs for innovation and technology in areas that they cannot provide themselves. Technology partnerships in the emerging high-tech product innovation sector will rise, and production innovation will lead an increase in EMS’ and ODMs.

Both EMS’ and ODMs will pursue collaborative partnerships. Collaborative partnerships will induce more trust and integration between OEMs, which can lead to improvement in return on investment, manufacturing and new product designs (Frost and Sullivan, 2012).

Frost and Sullivan (2012) foresee the following future trends:

- Technology-driven OEMs will depend on EMS providers and ODMs to develop broader solutions.
- EMS providers and ODMs will play a significant role in product roadmap support such as design support, and will be involved in helping customers stay ahead of the innovation curve.
- There will be increased focus on customer-centric strategy and aligning business models to emulate a greater synergy between OEMs and a contract manufacturer. This will include open collaboration and total visibility between operations.
- The market will witness increasing acquisitions and strategic alliances to help facilitate cohesive new product development/introduction strategies.

Figure 4 shows the revenue forecast for the Asia-Pacific ODM industry 2007-2017 (Frost & Sullivan, 2012)
Frost and Sullivan (2012) argue that in the future ODMs will play an important role in the industry. The rise of more ODMs will probably also lead to an increase in competition. Cooperation models between ODMs will therefore become more popular in order to stay competitive.

5. The case of Jabra

In the following section the case used in the thesis will be described. The section will be structured as follows: first a historical overview will be presented, followed by a description of the case that will be analysed in this thesis.

5.1. GN Great Nordic - A historical overview

The story of GN Netcom goes back to the 19th century and begins with the Danish entrepreneur named C.F. Tietgen. In 1869 he established the Great Northern Telegraph Company (today GN Great Nordic) with the intention of uniting people through communications. From its inception, the idea was to exploit Denmark’s location to create a global communication infrastructure. Over the next decade, GN expanded the extent of its telegraph network by establishing the first telegraph line, connecting Northern Europe with the most advanced network in East Asia. Generally speaking, GN played an active role in developing the telecom infrastructure in Asia towards the end of the 19th century. Among one of the largest and most important projects GN Great Nordic has worked on was the extension of the telegraph network in China. As time passed on, GN Great Nordic consolidated its position as one of the leading international telegraph companies in the beginning of the 20th century.

However, during World War II the company suffered a setback when German troops occupied Denmark in 1940 and blocked the telegraph connection between Denmark and all other countries except Germany. In the early 1970s the company was partly a telegraph company and partly a holding company. Yet, the majority of the workers were telegraph staff. On its 100-year anniversary GN’s telecommunication department was under pressure and there was a need for diversification. Consequently, GN Great Nordic entered the market for headsets by acquiring the Danish hearing aid producer, Danavox (later renamed GN Netcom).
5.2. GN Great Nordic – Transforming the business

In the middle of 1985 Great Northern Telegraph Company changed its name to GN Great Nordic in order to establish a new group identity. As a result, all subsidiaries received the prefix GN (GN Danavox, GN Nettest, GN Automatic etc).

The following year management decided to close down all activities at GN Netcom due to poor financial results, which left GN with an empty company. During the same time, GN Danavox was performing badly as well, which was a concern for the owners. As a consequence, GN Great Nordic decided to shift the production of headsets from GN Danavox, to a new division in order to improve efficiency. The newly established division was entitled GN Netcom and took over the production of headsets. This strategic rotation turned out to be a turning point in GN Great Nordic’s history, and GN Netcom is still an integrated entity of company today.

In the late 1980’s GN Netcom experienced increased sales revenue, and in an attempt to predict future trends and demands, the company promised its shareholders to focus on a development project called ‘cordless headsets’. The increasing focus on cordless headsets paved the way to where GN Netcom is today. In 2000 the GN Netcom launched the world’s first mobile Bluetooth (BT) headset, thereby establishing its position as a global innovator in personal communications. This was also the year when GN Netcom strengthened its position as a leading global provider of communications solutions by acquiring Jabra Corporation. A corporation founded in San Diego in 1993 with the purpose of exploring the huge possibilities of hands-free communication (Jabra, History, accessed June 17th 2013, http://www.jabra.dk/ServiceMenu/about-jabra/history). Jabra was the leading provider of advanced wireless headsets for mobile phones in United States and today contributes heavily to the success of GN Netcom.

5.3. Hands free market

Generally speaking, GN Netcom expects the total hands free market to increase in value from approximately DKK 6.12 billion (2011) to DKK 10.04 billion in 2015\(^1\). Essentially, the majority of the growth is happening in the product segment of what GN Netcom defines as corded stereo (headphones for music). As the technology in the mobile handset industry has integrated many

\(^1\) We converted the numbers from USD to DKK at the rate of 5.58 USD/DKK by quoting the Danish National Bank (09-08-2013)
functions from MP3 players and PCs entertainment, consumption has moved from MP3 players and PCs to smartphones.

The Jabra brand generates approximately 37% of revenue at GN Great Nordic and is expected to drive growth and profitability in the coming years. The mobile industry was impacted by the macro environmental instabilities during the peak of the financial crisis, but has bounced back as the business has grown at healthy average rates since 2010.

In a highly competitive industry, GN Netcom has started focusing on the high-end of the market to capture higher profit margins. In pursuit of new categories in the high-complexity segments, GN Netcom launched music products, such as the Jabra Revo and Jabra Solemate, which will have an increasing importance for the growth and profitability in the coming years.

The mobile market, according to GN Netcom, is estimated to be around DKK 8 billion in 2012 and is expected to grow to approximately DKK 15 billion in 2015, leading to an annual growth rate of 11%. The growth is expected to come from the Music segment as more and more people replace MP3 players and use their smartphones as their primary source of music. On the other hand demand for Bluetooth (BT) mono and stereo products are expected to be fairly flat and constitute around DKK 3 billion until 2015. The growth is illustrated below:

![Figure 5. Mobile market and prospect (GN Netcom slides)](image-url)
According to numbers from the GN Great Nordic annual report 2012, the CC&O market is estimated to be close to DKK 6.5 billion in 2012 and is expected to grow to around DKK 11 billion in 2015. This is equivalent to an expected annual growth rate of 16-19%. Growing importance of unified communication devices (UC)\(^2\) is believed to drive the growth rate by double digits in the CC&O business in the coming years. In Q4 2012, UC enabled headset devices comprised 46% of CC&O revenue, which corresponds to 31% growth in revenue compared to Q3 2012.

Today, GN Netcom employs 875, with 20 sales offices around the world. Generally speaking, GN Netcom enjoyed monopoly status in the CC&O segment for many years, however this dominance is less secure than it once was. Today the CC&O market is roughly shared with an American competitor called Plantronics where each enjoys a market share of around 30%, in what can best be described as a duopolistic market. In the Mobile segment GN Netcom sits on 20% of the market, which still makes it the world largest provider of mobile headsets. However, due to shorter product life cycles, low barriers to entry into building BT products, and changing consumer patterns GN Netcom is being pressured by Asian EMS and ODM companies, which produce similar products based on generic-sourced technology at a lower price.

5.4. Competitive advantage

In its Mobile segment GN Netcom faces intense competition in products based on BT technology. In combination with the emergence of ODMs and EMSs in East Asia, stagnating demand for BT products and low barriers to entry, GN Netcom has lately turned its attention to the Music and in-car speakerphone segments with no prior experience in selling in these segments. The main competitors are Bose, Beats by Dr. Dre, Sony and Philips. Many of these get their products manufactured directly by ODMs. Consequently, these products are based on the same generic technology but are differentiated in the sense that the different brands add their unique acoustic algorithm to the product and specify the requirements in terms of looks, durability, quality etc.

GN Netcom defines its own competitive advantage as knowledge in terms of acoustics and its long experience with implementing BT technology into a variety of products. Where the company really excels is its ability to integrate knowledge acquired from the CC&O segment, and offer wireless

\(^2\) Brings together telephone landlines, mobile phones, video conferencing, email and soft phones into one single application.
products in the mobile segment without compromising on quality and durability of the product. One of the other things that sets GN Netcom apart, according their own perception, is that it is a product development firm, which means that it does not only specialize in developing IP, but also focuses on excelling in the development of products in terms of design and durability. Moreover, GN Netcom is recognized for being highly innovative by introducing numerous first to market innovative products. As mentioned earlier in the case description, the company was first with its BT mono headset. Later, in 2005, the company presented the first headset with conference call functionality, and in 2012 it set to introduce the world’s first BT headset with Active Noise Cancellation (ANC).

5.5. Introduction to ODM outsourcing and the Rationale behind

GN Netcom experienced decreasing demand in the market for BT Mono and BT Speakerphone from 2010-2012. As stated above, the mobile industry recovered, however growth in the market for BT headsets and speakerphones remained flat. Future projections showed a fairly flat development in the coming years. Consequently, GN Netcom was being pressured on its core business in the Mobile market as stated earlier. Top management at GN Netcom realized that in order for GN Netcom to maintain its dominance in the Mobile segment there was an urgent need to go into new product segments.

These segments were typically areas where GN Netcom had no prior experience in and the company had no intention to make any upfront investments in form of developing these segments in-house. A way to mitigate the risk of failure in the new product categories was to make use of ODM suppliers. ODM outsourcing had been a part of the company’s business model since 2005. In 2005 ODM outsourcing was used as part of the strategy to move into the Music segment with off-the-shelf solutions. However, GN Netcom changed strategy and decided not to outsource the Music segment, but establish a joint development project together with Fujikon, which has proven to be a successful partnership.

GN Netcom does not outsource any of its products in the CC&O market, nor does GN Netcom’s competitor Plantronics. This is because there are only few players in the market and few of them if any have the competences to produce in the CC&O segment. In the Mobile segment the competition is much more intense and there are a large score of suppliers that offer similar products.
Consequently, GN Netcom intends to outsource some of its mid to low-complexity products to ODM partners in order to free up resources that can be invested in in-house research and development.

The decision behind outsourcing development activities to ODM partners was mainly driven by cost. The benefits of ODM suppliers have been their ability to develop products significantly cheaper than GN Netcom’s own engineers were able to. By outsourcing to ODMs, many in-house engineers’ feared that GN Netcom would lose valuable know-how about the outsourced products, which ultimately could erode their core competences. Consequently, there was a hostile attitude towards engaging with ODM suppliers among in-house engineers. By outsourcing to ODMs, engineers raised their concern over the negative consequences that outsourcing to ODM suppliers could have on the product quality.

From 2009 to 2010 6-8 suppliers were consolidated and the strategy shifted from working with specialized suppliers who often were dependent on assistance from GN Netcom engineers, to engage with suppliers that can run end-to-end projects and produce in large volumes. In 2012 the strategy was being reassessed. In order to stay competitive GN Netcom needed to innovate more for the same operational costs. Therefore, senior management in GN Netcom decided to integrate ODM into the company’s business model and asked for a plan identifying which products would make sense to outsource. The initiative was called project Gazelle.

5.6. Project Gazelle

The birth of Project Gazelle resulted in dissolving the old ODM outsourcing team. The team consisted of five people, who could ask for help in the different departments. However, they only did when it was too late. After the restructuring there was a clear line allocation of responsibilities between the new team and the R&D department. Director of GS was put in charge of the project and his main task was to create a structure on how to outsource to ODM partners.

The vision of Project Gazelle was to improve ODM outsourcing. In order to do so, GN Netcom needed to build a seamless process and structure that could support the development of projects and utilization of resources in an effective and seamless way.
Creating an internal and external structure meant that GN Netcom needed to find out which categories in different segments should be outsourced, finding the right suppliers that could support the products, finding one or two strategic suppliers that could be worked with on a more continuous basis, as well as managing risks and costs associated with it. Outsourcing to ODM has been a learn-by-doing process, where Internet search engines were used to find suppliers within the categories GN Netcom wanted to outsource. GN Netcom then contacted them and started producing.

Project Gazelle and ODM outsourcing was recognized as do or die for GN Netcom, meaning that GN Netcom needed to innovate more for the same cost. The aim is to find strategic suppliers that can create products that support GN Netcom in achieving its goals. By using ODM suppliers, GN Netcom wants to grow the number of products in its portfolio from 100 to 300 products from 2012 to 2015. This is illustrated below:

![Figure 6. The development GN Netcom expects to achieve by outsourcing products to ODMs (GN Netcom slides).](image)
5.7. What is outsourced

One of the first things that needed to be decided on was what should be outsourced. GN Netcom categorizes the Jabra products in three different categories as shown in Table 2.

<table>
<thead>
<tr>
<th>Types</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low product complexity</strong></td>
<td>Sold to a low cost. Often very standardized products based on a generic Bluetooth technology. The amount of R&amp;D outsourcing is therefore low.</td>
</tr>
<tr>
<td><strong>Medium product complexity</strong></td>
<td>Sold to a medium cost. The technology can both be very standardized on somewhere in the middle of standardized or complex. These types of products are rarely outsourced.</td>
</tr>
<tr>
<td><strong>High product complexity</strong></td>
<td>Sold to a high-cost. These products are often more complex technology-wise, as well as design- and production-wise, and require often more R&amp;D innovation. Therefore, there is a higher degree of R&amp;D outsourcing involved.</td>
</tr>
</tbody>
</table>

*Table 2. Jabra products are defined by how complex the product is to build.*

All the products have different ranges, e.g. music headphones can have some products in the low-complexity segment, as well in the mid and high-complexity segment. Furthermore, there can be just as low or high a profit margin in the low-complexity products as the high-complexity products. It varies from product to product.

From the beginning it was decided to focus only on the business-to-consumer segment (that also range from low to high-complexity). The reason for this, as stated earlier, was due to the fact that there are two players splitting the market and a few small and specialized suppliers in the office head-set market. From GN Netcom’s point of view, it does not make sense to outsource in the CC&O segment, as they do not have any interest in bringing up any competitors and share the market with them. As a result, the CC&O segment has never been considered for outsourcing.

The strategy is to outsource many low-complexity products that can be standardized, as GN Netcom believes that the growth in the Mobile segment will come from high-complexity product categories.
such as the Music and in-car speakerphones segment. It is important to focus on these areas by keeping them in-house.

In the Mobile segment there is a flexible approach to what is being outsourced and what is done internally. The process of choosing what can be outsourced starts at the marketing department. Marketing presents a “one pager” (a document) on a product containing information concerning expected volumes, price points and market positioning. Next it is decided whether the tasks should stay in-house based on if there is available R&D staff. If not GN Netcom assesses if any of the ODMs have the capabilities to run the project.

GN Netcom works from a road-map, working 16-18 months ahead. This means that from the time of the one-pager to the product is actually initiated 6 months can easily pass. The consequence is that new products can come in and the old ones that are not yet started can be stopped, because a new one has higher priority.

GN Netcom offers products based on generic technology, which can be found in competing products when outsourcing to ODMs. However, GN Netcom does not see this as an issue and it is one of the reasons why GN Netcom only wants to outsource low-complexity products, where the technology is generic and the quality demand is not as high as it is for the high-complexity segments. Furthermore, it is cheaper to outsource to an ODM when the demand is low. When the demand increases it is cheaper for GN Netcom to produce the products in-house because its supply chain setup and its own EMS in China is more efficient.

The ratio of outsourcing in the Mobile segment has stabilized at around 80/20, whereby 80% of the projects are kept in-house, and the remaining 20% is outsourced to an ODM. The 80/20 split creates flexibility because GN Netcom has a variation in terms of the number of on-going projects. However, during peak times outsourcing to ODMs rarely exceeds 20%. Yet, when cost savings are possible GN Netcom outsources even when there is no demand for it. This distribution will most likely stay this way in the future. Outsourcing 20% of the R&D to ODMs will not have any effect on the number of employees in R&D.

The reason why GN Netcom does not just use Xiamen instead of ODM outsourcing is because the company wants to avoid the risks associated with investing upfront when entering new product
segments. There is often a higher overhead per product when an ODM produces compared to when GN Netcom does. Furthermore there is also a cost of keeping everything in-house which is high since it costs around DKK 4-6 million to develop new products, whereas an ODM can do it for DKK 500.000 to DKK 1.000.000.

Figure 7 illustrates what products segments the different ODM can produce in. GN Netcom also produces in the same segments as the ODMs. The division is around 80/20 for GN Netcom and the ODM. Fujikon produces high-complexity headphones in the Music segment. Whereas the new ODM, that will be introduced in 2013, will cover a wider range of products mainly low to mid-end in the Mobile segment. As shown, second strategic ODM covers some of the area in mid to high-complexity products in the music category because GN Netcom wants to create competition between the two suppliers. The CC&O products are kept in-house due to the duopoly status GN Netcom enjoys in this segment. The area above the blue line in the BT mono and BT car speakerphone segments are covered either by in-house or ad hoc suppliers. The BT In-car speakerphones were sourced as off-shelf solutions from an ODM supplier.

![Figure 7](image)

*Figure 7. The figure illustrates what product segments GN Netcom produces in-house and what segments the ODMs are producing in.*

Bluetooth has become a highly generic technology; however, what makes the products more complex is the chips and algorithms placed in the products. At the moment GN Netcom buys the chips from a manufacturer, but applies their own algorithms only in high-complexity products
(thereby also making them complex). In low-complexity products a standard chip and algorithm is used.

5.9. Suppliers
Ideally GN Netcom prefers to work with seven to eight ad hoc ODM suppliers and two strategic suppliers. The reason for having more suppliers is to cover a wider breadth of product categories. During the summer of 2013 the strategy is to find a new strategic supplier and make sure that it can take responsibility for more products categories without depending on assistance from GN Netcom.

Finding suppliers in the BT head set category is fairly easy due to low entry barriers, which has increased the number of potential suppliers. It is fairly easy to get started, and the ODMs can receive a lot of support from chip manufacturers, which means they can relatively fast begin the production process. Establishing a relationship and continuing it successfully has so far been a challenge. GN Netcom spends a lot of time on assessing supplier capabilities, and when a relationship has been established it sticks with the same ODM for a long time.

GN Netcom is often faced with similar problems when cooperating with a new ODM. In the beginning GN Netcom is promised the best engineers, but when GN Netcom was not able to give the ODMs (strategic and ad hoc) the volumes they were promised, GN Netcom often received less good engineers (a so called C-team). This relates to the fact that the ODMs give the best engineers to companies that can provide them with the largest volumes.

5.9.1 Strategic ODM suppliers
Strategic suppliers are suppliers GN Netcom prefers to outsource to. When GN Netcom decides to outsource some products or development projects, it first assesses if the strategic supplier(s) has the desired competences to manage the project seamlessly. If that proves the case, GN Netcom offers the task to the preferred strategic supplier(s). These are often offered several product categories which amounts in a large production volume. By offering the strategic supplier large production volume GN Netcom can avoid receiving C-teams.
In the past GN Netcom has audited the strategic suppliers and evaluated their competencies biannually, and sets up long-term targets focusing on which competencies these suppliers have to develop over time in order to qualify for further projects in the future. The suppliers will have to figure out on their own how to improve their capabilities since GN Netcom does not send people out to train them in how to develop the desired capabilities. GN Netcom only does limited backwards integration.

Fujikon has been GN Netcom’s preferred strategic supplier through a number of years and a second supplier will be introduced ultimo 2013. Figure 7 illustrates which product categories the strategic supplier(s) are (will be) responsible for.

5.9.2. Ad hoc ODM suppliers
These ODMs can be big suppliers with many customers and small ODMs with only a few customers. The ad hoc suppliers have their capabilities assessed and are used whenever there is a project that matches these capabilities. Many of the ad hoc suppliers started out as potential strategic suppliers, but when they did not perform, or GN Netcom was given the C-team, these suppliers became ad hoc suppliers.

There is a tendency of not letting go of suppliers that have not performed, and many of these suppliers end up in this category. A lot of time is also spent auditing and managing the suppliers, both in terms of keeping the relationship going and managing the production. One approach by GN Netcom to this is to have employees stationed at the ad hoc suppliers whenever a Jabra product is produced.

5.10. The process of finding an ODM supplier
First a questionnaire is created internally based on questions made by project management, R&D, supply chain and quality management. This is done in order to evaluate the suppliers on as many factors as possible. When this is done, GN Netcom sends out a request for information (RFI). In the RFI many of the questions from the previous developed questionnaire are present. The supplier then answers most of these questions, and based on the answers a corrective action report or an audit report is created, which is then sent back to the supplier. Then the ODM has 14 days until company
representatives will visit the factory or location. These representatives are usually project managers, R&D staff, supply chain representatives and quality managers.

Based on the visit another corrective audit report is made, which is then going to form the basis for a bi-quarterly audit of the supplier. In the report there are often issues the ODM has to take care of. The ODMs then get some time to improve on what GN Netcom has demanded. GN Netcom then checks up if the ODM has improved. It is then assessed whether the ODM is capable of running projects without relying on support from GN Netcom. Furthermore, the assessment is revised and used to determine if the ODM can qualify for future projects.

This set-up should in the future help create a better structure around ODM outsourcing. Ideally, GN Netcom wants to be able to look at all the different product segments and then know which suppliers can seamlessly run different products categories.

5.11. Modes of production

Within GN Netcom there are three modes of working together with suppliers: **new product development**, **joint development**, and **off-the-shelf** where GN Netcom buys a finished product.

5.11.1. New Product Development

As the name implies, the ODM develops and produces new products. GN Netcom designs the product (in terms of physical looks) in-house and then sends out a list of specification (e.g. quality) and a target price. The ODM then creates the product and when the product is finished it is sent to a GN Netcom owned warehouse in Asia. The NPD can take place both at a strategic supplier and at an ad hoc supplier that is in the catalogue.

NPD at the ad hoc suppliers is often the more standardized products where there is not a high need for GN Netcom’s engineers to be present. For some reason or other GN Netcom’s engineers ends up in assisting the ad hoc supplier in NPD projects.
5.11.2. Joint development

GN Netcom also engages in joint development activities. Joint development, as the name implies, takes place when GN Netcom and an ODM jointly develop the products. A project of joint development starts when GN Netcom defines what technology it can provide and then defines what is needed from an external partner; again GN Netcom designs the product in-house. An external partner is then found by either having them in the catalogue already, or by an audit process. Then a project team is created at GN Netcom and at the ODM. The two teams will visit each other throughout the development phases, in order to link the different technologies. At the moment GN Netcom has two joint development projects running, and a third is in the preliminary stages. In the future GN Netcom plans to engage in further joint development projects.

When the development of a product is done GN Netcom and the ODM split the IP, so that the technology both parties develop stays in-house. In the beginning of the project a contract is signed stating which IP belongs to whom. This means that if GN Netcom would like to produce the product itself, they would need to start all over by developing technology similar to the one the ODM already has developed. Using the ODM’s technology would be seen as breaking the IP.

5.11.3. Off-the-shelf products

Off-the-shelf products are ready-made products GN Netcom purchases, where after it labels the GN Netcom brand on to the products. The product, specifications and price have been decided by the ODM and GN Netcom has no or very little influence in the development and production phase. Off-the-shelf products can be sourced from strategic and ad hoc suppliers. So far not many products have been bought this way; however, one example is the in-car speakerphones.

When GN Netcom decided to enter the market for in-car speakerphones the company did not have any previous experience with the market, nor did it possess any technical knowledge about car speakerphones. Therefore, GN Netcom used an ad hoc ODM partner that had experience in developing these.
5.12. Managing the relationship

When outsourcing to ODMs GN Netcom has often received products suffering from major quality flaws. When quality issues are detected GN Netcom sends out a quality manual to guide the supplier on how to improve the quality on certain parameters. It is cheaper solution for the company to do quality control, detect problems and make the ODM redesign the product rather than doing the development and production internally.

That, along with securing quality and performance of the products coming out of the ODM has been the greatest arguments for not outsourcing to ODMs. Even though GN Netcom performs extensive audits before signing with any ODMs, it sometimes turns out that the ODM has overstated its competences. Previously GN Netcom has sent engineers to the ODM in order to train them in how to make products. However, GN Netcom prefers no to do this, as it is viewed as sharing knowledge with the ODMs.

In order to avoid sending engineers or instruction manuals out to the ODMs, GN Netcom has employed staffs that work on site at the different ODMs in order to create closer relations as well as oversee the production phase. As for now there have been no incidences of breaking the trust. Lately, GN Netcom has found copies of some of its products. However, Director of GS believes it can be the plastic supplier that copies GN Netcom’s products and not necessarily the ODM partner because the same risks apply for both ODM and OEMs.

Lastly, GN Netcom spends a great deal of time on managing the projects outsourced to ODMs. There is a wish of optimizing the structure around the outsourcing process in order to shift management attention towards other areas.
5.13. Summary

GN Netcom is a dominating player in the CC&O and Mobile segment within the office and telecommunications industry. Products are marketed under the Jabra brand, which has a long tradition of first-to-market products. However, it is experiencing intense pressure within the mobile segment due to changing consumer preferences and an abundant amount of suppliers that provide similar products. During the financial crisis GN Netcom decided that R&D costs and its operational expenses would have to be held constant in order for the company to survive. At top management level, outsourcing to ODM was seen as the solution that would save the company. Additionally, top management decided that the Jabra portfolio needed to diversify into new segments such as the Music and in-car speakerphone in order to keep track with changing consumer preferences. ODM outsourcing is regarded as an opportunity to enter new product categories without investing heavily in segments it does not have prior experience. Outsourcing to ODMs is a cheaper solution when entering new product categories.

However, outsourcing to ODMs has proven a big challenge for GN Netcom due to the lack of a strategy on how to conduct this outsourcing. Decisions on which products to outsource is still made on an ad hoc basis, as there is a lack of consensus on, which product categories should be outsourced. Initially, the strategy is to outsource low-complexity product categories, however the opposite is happening as more high-complexity products are being outsourced.

Furthermore, it has also been challenging for GN Netcom to find the right ODMs to partner with. GN Netcom outsources to nine ODMs, where two of them are seen as being strategic. For now, outsourcing of products to ODMs is done on an ad hoc basis since GN Netcom has not been able to match ODM capabilities to their products.

Finding the right suppliers, auditing them, as well as managing the relationship takes a lot of time. Furthermore, there has been a need to help suppliers in order improve the quality of the products. Helping or transferring of any sort of knowledge to the ODM is something GN is completely against. However, the company still engages in joint development projects, where spill-over effects are inevitable. This mode of production is also expected to increase in the future. The company always assists the ODM in the product developing process and indirectly giving them technological know-how.
Dealing with all of these issues is very time consuming for both directors and the VP of R&D. In addition, the potential of the project is not being realized as much time is often spent dealing with supplier issues. Therefore, an optimization of the whole outsourcing process is needed for the project to become a success. Thus, leading back to the research questions of this thesis:

“How can GN Netcom optimize outsourcing of Jabra products to Original Design Manufacturers?”
And “What could constitute a best practice for Original Design Manufacturer outsourcing in the electronics industry?”

6. Theory

This section will serve as the theoretical base for the thesis. Many frameworks have been chosen in order to examine the case from different angles. Examining the NPD practices of the most innovative firms, and including constructs and concepts from new product developments, an understanding is provided of the factors that affect the outsourcing decisions. Next a theory on outsourcing of R&D are used to assess to which extent R&D can be outsourced and the subsequent implications this can have on innovation performance. The NPD and R&D field is less forthcoming about the interdependences and relationships among suppliers and buyers when engaging in business relations. Therefore, we introduce literature specific to the ODM industry to analyse the industry, which will work as guidance point for our research. We also include a theory that concentrates on establishing the right supplier-buyer relation, which is affected by the technological maturity of the product and the market conditions it is being sold in. A theory of how to achieve successful supplier integration in NPD projects will also be introduced. Lastly, we introduce issues that companies need to be aware of in order to achieve successful ODM relations. These issues are specific to the ODM outsourcing in the electronics industry. The theories and concepts will be combined into a framework that we will be able to use in order to analyse our empirical data.

6.1. Introduction to outsourcing

In recent years firms have faced pressure for developing products faster at lower cost which has created an ever-increasing focus on make or buy decisions (L. Cánez, K.W. Platts & D.R Probert 2000, J. Gray, B. Brian Tomlin & A.V. Roth, 2009).
The increased pressures have forced many companies to outsource what was believed to be core competence (P. Teirlinck, M. Dumont & A. Spithoven, 2010, R. Narula, 2010 and Grimpe & Kaiser, 2010). For a long time R&D activities were seen as part of core high value-adding competences and should therefore not be outsourced. However, there has been an increasing trend in outsourcing and offshoring of R&D tasks (see e.g. M. Mol, 2005, M. Leiblein, 2003) and the trend is evident within high-tech industries where the amount of external R&D is high relative to low-tech industries (W. Bönte, 2003).

An issue pertaining to outsourcing of development activities relates to the potential erosion of the firm’s internal knowledge base. It was found that over-outsourcing of R&D could lead to a decline of architectural knowledge, which will also lead the company to a trade-off between leveraging external sources of innovation and the ability to develop internal product development competences (W. Becker & J. Dietz, 2004). This will also lead to external technology dependence, increase organizational cost and weaken integration between production and R&D, as well as internal innovation capability and comparative advantage (Teirlink et al. 2010).

Sometimes a trade-off happens when companies choose to source the competences needed to design and manufacture a product instead of doing it themselves (T. Holcomb & M. Hitt, 2007). This trade-off is evident in the decision making process of the firm. In order to understand how the decisions behind outsourcing affect the outcome we will include a best practice approach to NPD to outsourcing by Rundquist & Halila (2010). This particular best practice has been chosen because of findings in terms of how decisions of cost or knowledge affect can affect the outcome of the outsourcing process when outsourcing NPD. This is highly relevant in order to find out how the case company can optimize their outsourcing process. Furthermore, we include Grimpe & Kaiser (2010) to analyse the consequences of outsourcing R&D activities to ODMs. Grimpe & Kaiser (2010) can help assess pains and gains the case company has to be aware of when outsourcing R&D activities to ODMs. Furthermore, the framework provides a balanced view of consequences of over-outsourcing of R&D activities which is another reason why it is relevant.

6.2. Decisions affecting NPD outsourcing

During the make and buy process, when a company has decided to outsource products, it can choose different modes of doing so. One mode is when an external supplier is fully responsible for
the NPD process without the involvement of the OEM. An alternative approach is when the OEM jointly develops a product with a supplier in the NPD process.

Early studies on outsourcing of NPD activities mainly came from supply-chain literature focusing on supplier integration in the NPD process (Rundquist & Halila, 2010). However, in Rundquist & Halila (2010) the authors improve the understanding of NPD and the factors affecting the outsourcing decisions by examining the NPD practices of the most innovative firms in developing new products. Thus, findings from Rundquist & Halila (2010) gives us some tools which will be helpful examining GN Netcom’s approach to outsourcing NPD activities to ODMs.

The authors split the firms into two groups based on Frishammar & Hörte’s (2005) definitions; “the” “best performing firms” and “the rest firms”. Firms in the best group have a documented strategy for outsourcing NPD, while the “rest firms” do not outsource activities in their NPD process. These firms have to a larger extent a higher focus on effectiveness and volume, and to lesser extent focus on outsourcing NPD activities.

6.2.1. Reasons for and against decision to outsource NPD
The most significant reason for outsourcing NPD tasks was that the firms needed access to knowledge that the firm did not have internally, while the second most important reason to outsource was greater effectiveness in the manufacturing phase. The difference between the best performing and rest firms is significant (Rundquist & Halila, 2010). The best performing firms prioritize acquiring knowledge that does not exist internally significantly higher than the rest firms. Furthermore, the best performing firms place significantly greater emphasis on working with world leading firms in order to tap into knowledge compared to their counterpart. When the price variable was examined the study revealed that the variable was significantly more important to the rest firms, which is not surprising when they to a larger extent focus on volume and efficiency, where cost is an important factor. However, sometimes outsourcing is not the optimal solution. The risk of competence dilution and strategic decisions from the board were the two most significant factors behind not to outsourcing. Of these two factors, only the risk of competence drainage was significantly more important to the best firms (Rundquist & Halila, 2010)
6.2.2. The most important factors when choosing partner for outsourcing of NPD

Rundquist & Halila (2010) found that the most important factor, when choosing an outsourcing partner was access to technology. This was more important than low-price or world-class knowledge, as long as it solved the problem at hand. Therefore companies should increasingly focus on finding appropriate knowledge that can solve the problem rather than necessarily only going for the low-price technological solutions or state-of-the-art knowledge (Rundquist & Halila, 2010).

However, some significant differences were found between the groups. Generally speaking, knowledge-specific factors were prioritized higher in the best group while long collaboration, geographical proximity, cost and personal relation are ranked higher among the rest firm group when choosing an outsourcing partner.

6.2.3. Integrating results and knowledge from NPD outsourcing

The best performing firms took competence drainage very seriously when deciding on outsourcing NPD. To stay on top, these companies realized that they needed to source some technology to increase their competitiveness and integrate it with the internal knowledgebase of the firm. In order to integrate knowledge, these firms have significantly higher use of personal interaction in integration process while the rest group mainly transfer written results and knowledge without any personal meetings (Rundquist & Halila, 2010).

Taking a step further, after examining factors affecting the outsourcing decision of NPD, we now turn our attention to the pains and gains related to outsourcing of R&D activities. Rundquist & Halila (2010) touched upon the topic slightly. However, in order to get a deeper understanding of the topic we include Grimpe & Kaiser (2010).

6.3. Balancing Internal and External Knowledge Acquisition: The Gains and Pains from R&D Outsourcing

In the following section we will discuss the pains and gains stemming from R&D outsourcing, based on a framework in Grimpe & Kaiser (2010). The main argument of the paper is that an increasing level of R&D outsourcing can have a negative impact on a firm’s internal innovation
capabilities (the firm’s ability to produce new knowledge), and that over-outsourcing poses a serious threat to a firm’s innovation performance.

When conducting outsourcing of R&D tasks there are ‘gains’ that need to be balanced against the ‘pains’ which Grimpe & Kaiser (2010) suspects to stem primarily from three sources:

- Firm-specific resources are diluted if firms rely strongly on rather generic external knowledge to which competitors might have equally good access.
- R&D outsourcing hurts the firm’s integrative capabilities (the ability to redeploy and integrate external knowledge with internal knowledge base of the firm) that are necessary to assimilate and build upon external knowledge.
- Managing external relationships with R&D contractors’ calls for increasing management attention, which is critical in the process of resource redeployment.

<table>
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<th>Gains</th>
<th>Pains</th>
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<td>The company gains access to resources not available internally.</td>
<td>IP rights can be difficult to allocate e.g. in joint development.</td>
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<tr>
<td>Especially acquiring new knowledge can lead to superiority among</td>
<td>Some suppliers might lack the required expertise they stated in the contract they had.</td>
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<td>competitors.</td>
<td>OEMs might need to supervise, control and steer the project. Outsourcing of R&amp;D often calls for a high amount of management attention both in terms of the project, but also managing the relationship with the external party.</td>
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<td>It can foster innovation capabilities, as well as drive efficiencies.</td>
<td>It can cause a ‘not invented here’ syndrome which may lead to reluctance of in-house R&amp;D staff to adapt to external knowledge.</td>
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<tr>
<td>Another benefit is cost. The specialization of a supplier or sharing</td>
<td>Externally produced knowledge is often not</td>
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<td>cost in a joint development project can lead to a cost reduction</td>
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<td>(Grimpe &amp; Kaiser, 2010).</td>
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<td>Fixed costs can be reduced; R&amp;D time and budget can be better</td>
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<td>controlled. Yet, it was found that cost should not play a big role,</td>
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<td>since skilled and well-paid R&amp;D employees are a scare resource that</td>
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unique, and therefore competitors can benefit from it as well.

Relying excessively on external knowledge acquisition can hurt a firm’s integrative capabilities, which is critical when redeploying and building upon the acquired knowledge.

R&D outsourcing calls for significant managerial attention to monitor and assess R&D suppliers in the preliminary stage of the relationship. In addition, managerial attention is essential in the process of redeploying acquired knowledge with in-house knowledge in order to benefit from pooling external knowledge with in-house capabilities.

Table 3. Pains and gains related to outsourcing of R&D activities.

When dealing with R&D outsourcing, it needs to be done in a manner so as not to dilute the core competences of the company. It was found that an increase in level of R&D outsourcing has a positive effect up until a point where the opposing effects materialize. Yet, the point of diminishing return is firm specific and is moderated by the extent to which firms engage in in-house R&D activities and by the extent of formal R&D collaboration. This reveals itself in an inverse U-shaped relationship between R&D outsourcing and innovation performance (Grimpe & Kaiser, 2010).

Management has to be aware that R&D outsourcing can become disadvantageous when the firm relies extensively on external knowledge. The point of diminishing return is firm specific and depends largely on the internal knowledge base of the firm (Grimpe & Kaiser, 2010). Consequently, one way to increase the chances of preventing over-outsourcing is to co-invest in internal resource creation and integrative capabilities.

Generally speaking, higher internal R&D expenditures improve innovation performance and shift the tipping point towards higher amounts of external R&D expenditures (Grimpe & Kaiser, 2010).
As illustrated, the 1% most R&D intensive firms benefit the most from engaging in R&D outsourcing (this is illustrated below in figure 8). Consequently, the negative effects from over-outsourcing can be mitigated by investing more into internal R&D activities. Therefore, management of the firm should not only focus on knowledge gaps that have to be compensated for but also make a plan for how internal and external knowledge can be integrated in order to achieve a result that can improve the innovation performance of the firm (Grimpe & Kaiser, 2010).

Figure 8. The effect of internal R&D on the relationship between R&D outsourcing and innovation performance (Grimpe & Kaiser, 2010).

It was found that collaborative R&D had a positive effect on innovation performance. Further, firms that already had collaborative agreements with suppliers were more open to external knowledge, as well as the having experience with collaboration would increase firm’s ability to find suitable R&D partners, reduce information asymmetries and better control and manage the R&D outsourcing process (Grimpe & Kaiser, 2010). A higher degree of engagement into formal R&D can therefore mitigate the negative consequences of over-outsourcing. Firms should not rely on R&D outsourcing only but support it with joint R&D projects with external partners. This can lead to a higher access to a wider range of knowledge (Grimpe & Kaiser, 2010). Further, the firm should use its joint R&D projects to build up experience on how to manage the process of external knowledge acquisition.
Figure 9. The effect of collaboration breadth on the relationship between R&D outsourcing and innovation performance (Grimpe & Kaiser, 2010).

Figure 9 illustrates the effect of collaboration on the relationship between R&D outsourcing and innovation performance for the 10% most collaboration intensive firms. As such, the tipping point from which additional R&D outsourcing has negative effects on innovation performance is reached at greater values of R&D outsourcing when engaging in formal R&D collaborations (Grimpe & Kaiser, 2010). It also found that because the tipping point occur at rather high levels of R&D outsourcing many firms often do not encounter the negative effects from over-outsourcing. However, Grimpe & Kaiser (2010) suggest that R&D outsourcing should be continuously scrutinized, and internal R&D and collaboration used to increase returns from R&D outsourcing.

6.4. Suit the relationship to the product

As seen above, there are different ways of working together with the ODM, but it does not mention how. The next framework focuses on how to match and balance a portfolio of relationships adapted to the product and market conditions. If the product is based on highly standardized technology that many suppliers possess, the buyer-supplier relationship should be based on a market-exchange relationship, where the buyer swiftly and at low cost can switch between suppliers. However, if the relationship does not match the product and the market conditions, the buyer does not benefit from the market mechanisms such as low cost and access to knowledge.

The Bensaou (1999) framework was mainly written for general use for outsourcing in the automobile industry; however we believe that it is relevant in relation to managing supplier-buyer relations with the ODMs in the electronic industry. In order to make sure that the contingencies
from ODM outsourcing are taken into account, a framework by Arruñada & Vázquez (2006), described later on, will be used in the analysis together with the findings from Bensaou (1999). These particular frameworks have been chosen, as they provide a structure for matching the product with the relationship as well as making it ODM specific. We were not able to find any other frameworks that provided us with the same approach to how to match the products to specific relationship, something that is very relevant for the case company, which is also why these theories are included.

6.4.1. Market-exchange profile
A market-exchange profile is based on a simple relationship whereby the two companies only exchange information during bidding and contract negotiations. Suppliers manufacture products from buyer’s specifications. These products are often very commoditized and usually outsourced. Since there is little requirement from suppliers, the upstream market is highly competitive often with small mom and popshops. There are low switching costs and the OEM can easily find other suppliers, and the supplier easily can shift production to a new OEM’s requirements. Often the smaller suppliers get repeated business, but without any long-term contracts. This relationship suits highly standardized products that require little or no customization. The product’s technology is mature and there is little requirement from engineers and it does not require much expertise from suppliers.

6.4.2. Captive-Buyer Profile
The main difference between this profile and the previous is the market and number of suppliers available. The products are made with complex components that require some customization, but are still based on well-understood technology. The supplier and buyer need to exchange detailed information in areas of design, manufacturing, quality and purchasing. It is expected that there are no major product changes or price performance improvements for the next years. It is a limited growth market. The supplier market is highly concentrated with few large players holding a strong bargaining position over the OEMs. Consequently, it is difficult and expensive to find and switch to another supplier. This type of relationship is characterized by an asymmetric relationship where the buyer can be held hostage and the supplier can freely chose other customers. Therefore, in order to
mitigate the risk of hold-ups, OEMs are advised to maintain and develop in-house capabilities in producing the products that are outsourced (Bensaou, 1999).

6.4.3. Strategic Partnership

The products in this relationship consist of highly customized components or integrated subsystems that require strong technology and engineering capabilities. There are often invested in the supplier, and there is a high risk and damage if the suppliers behave opportunistic. The market is very competitive and suffers from technological uncertainty. Suppliers and buyers are often involved in a long-term relationship and the supplier often develops skills to suit the buyer’s requirements. Suppliers often invest in research and there are high levels of interaction and interdependency between the two parties. Engineers often pay visits to the supplier as they share knowledge and perform quality controls (Bensaou, 1999). Additionally, OEMs usually keep designs in-house and maintain capabilities in development, testing and manufacturing.

6.4.4. Captive supplier profile

This profile is based on relationships on complex products based on new technology that is exclusively developed and owned by the supplier. The products and technology are high in demand, but there are many suppliers in the market and often one supplier develops new technology faster than the others, and therefore the supplier possess limited bargaining power. In this segment many buyers switch between suppliers in order to utilize and benefit from newer and better performing solutions. There is a low level of information exchange, but high levels of trust.

6.4.5. Matching the relationship

In order to succeed there is a need to match the coordination, information and knowledge exchange requirements to these types of relationships. Structured routines and only a little exchange of information are sufficient to coordinate efficiently when outsourcing standardized products based on a mature technology.

There are both matches and mismatches in terms of suiting the relationship to the product. When firms invest in building trust, quality control, guest engineering and so for a product that is based on stable technology, the relationship does not match. The buyer spends money that it does not need to
as well as gives too much information to the supplier; information it could draw use of to attract other customers. The opposite can also happen, where a buyer does not create a strategic alliance even though the product is based on new technology and the supplier can gain by using the technology in his or her own products. Consequently, the first mentioned relationship is overdesigned and the last is under-designed (Bensaou, 1999).

6.5. Supplier integration
This section discusses that some products and the extent of R&D outsourcing has to be managed through alliances and long-term relationships. In recent years many authors have focused on management and control of suppliers as well as supplier-buyer relationships (K. Hald, C. Cordón, & T.E. Vollmann, 2009, K. Petersen, R.B. Handfield & G.L. Ragatz, 2003).

There are many benefits associated with a closer corporation (Hald et al. 2009, Petersen et al. 2003). These benefits often increase shareholder value, increase in profits and reduction of costs in both on the short- and long-run in purchasing, quality and product development time (M. W. McCarter, G.B. Northcraft, 2007). Furthermore, companies working closer together will also receive benefits in terms of access and application of technology. To get access to knowledge and expertise of suppliers is found to lead to better technology decisions and better designs (Petersen et al. 2003). However, many of the supply chain alliances do not work because of the inter-firm rivalry (Petersen et al. 2003). The reason why it might not work can be found in the reluctance to share information, skills and processes, as well as opportunistic behaviour can play a role.

One of the biggest dilemmas associated with integration is to know what to integrate and what not to integrate (J. Mouritsen, T. Skjøtt-Larsen, H. Kotzab, 2003). We have therefore chosen to use two frameworks, a general and one NPD-specific to find out the extent GN Netcom integrates with its suppliers. We therefore include two frameworks. J.K. Liker & T.Y. Choi (2004), who have created a framework showing how successful supplier buyer integration can be achieved. Liker & Choi (2004) enables us to assess to what extent the case company integrates with the ODMs. In addition, we include Petersen et al. (2003) to make it more NPD specific. Petersen et al. (2003) offers a framework that illustrates four factors that influence the outcome of NPD projects performed in collaboration with a supplier and can help us to assess how the four factors affect the outcome of the case company’s joint NPD projects.
6.6. Integrating with your supplier - a general framework

The question is then how to build a successful relationship with a supplier. The next framework, developed by J.K. Liker & T.Y. Choi (2004), presents a general view of how to integrate with your suppliers. The framework was originally developed for outsourcing of the manufacturing processes by looking at how two Japanese automakers have had success in building relationships with North American suppliers. Nevertheless, we believe findings from Liker & Choi (2004) are useful since the dynamics of the car industry are highly scale-driven and technology intensive where partnerships with suppliers are the supply chain’s driving force. This also applies to the electronics industry. Further, we believe the framework can be applied to the Jabra case as it can enrich our understanding of how GN Netcom builds relationships with its strategic partners and how they deviate from some of the most successful companies.

Supplier integration is increasingly happening and in many industries it is not a question whether an arm’s length relationship should be turned into close relationship, but rather how (Liker & Choi, 2004). Many companies have realised there are huge benefits from closer integration, such as reduction of cost, improvement of quality and develop new processes and products much faster (Liker & Choi, 2004). Liker & Choi (2004) found six steps to a closer relationship that could yield above-mentioned benefits were due to six steps, where the degree of dependency between the buyer and supplier increases (Liker & Choi, 2004). The steps are illustrated in figure 10.
Generally speaking, supplier integration is a long process and does not necessarily mean sharing of technology in the beginning. First when the supplier and buyer start working closer together more integration takes place. This can be achieved by following the model. However, the model does not mention much about how the buying firm can successfully integrate with its supplier in the NPD process. We therefore present Petersen et al.’s (2003) model of supplier integration into NPD to get an understanding of what key activities are required for successful supplier integration into NPD projects.

### 6.7. NPD supplier integration

Acquiring technology can lead to a dilution of core competences (Grimpe & Kaiser, 2010), which in the end can deteriorate the competitiveness of the firm. Findings from Petersen et al. (2003) suggests that the “not invented here” syndrome was a widespread phenomenon among R&D...
engineers from 17 different manufacturing organizations participating in the case study. The engineers were not comfortable with working on knowledge developed by an external partner. The risk of losing knowledge about technologies that are sensitive to the core competencies of the firm was the root cause of the “not invented here” mind-set.

Certain actions are required before achieving successful supplier integration into NPD projects. There are four factors that can impact the outcome of the project: increasing knowledge about the partner, sharing of information, supplier involvement on decision-making and the nature of the technology at hand impacts the outcome of the NPD projects.

The following table and model can be used as an integration tool in order to make sure that the best possible outcome of the relationship is achieved (Petersen et al. 2003).

<table>
<thead>
<tr>
<th>The four factors impacting NPD outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer knowledge</strong></td>
</tr>
<tr>
<td>Like the previous theory suggests, it is easier for an organization to accept new partners in NPD projects if the people involved are familiar with the external suppliers prior to any involvement. Hence, it becomes easier to integrate when the organization has accepted and feels comfortable working with the suppliers (Petersen et al. 2003). In return, this can inspire to share knowledge with the suppliers and when you have sufficient knowledge about your suppliers it becomes easier to assess if the suppliers can assist the buyer in improving the NPD process. Further, the buyer can point to how the suppliers should improve in order to qualify for orders.</td>
</tr>
<tr>
<td><strong>Technology and cost information sharing</strong></td>
</tr>
<tr>
<td>An increase in the shared technology can lead to better solutions and sometime lower costs. When a relationship has been established suppliers often run with open books and use target prices, which makes it easier for the buyer to determine how well the project goes.</td>
</tr>
<tr>
<td><strong>Supplier involvement in decision-making</strong></td>
</tr>
<tr>
<td>Suppliers often have collocated engineers with the buying company, and it was found this had a positive effect on problem solving during design, ramp-up and full volume operations (Petersen et al. 2003). However, this was found to be one</td>
</tr>
</tbody>
</table>
of the most problematic areas for supplier integration, as there often are cultural problems, and the engineers have different corporate background.

**Technological Uncertainty**

Many companies want to reduce development time and at the same time maintain innovation, which means the companies need to commit to technology with less information than before. This comes from several sources such as new to the world technology, new application of old technology and technology outside the company’s field. Consequently, findings from Petersen et al. (2003) suggest that companies use different integration strategies in cases where technology uncertainty exists.

*Table 4. The table describes the four factors which Petersen et al. (2003) test for.*

![Figure 11. Simplified structural model and hypotheses Petersen et al. (2003).](image)

The project’s outcome depends on the degree of integration with the supplier in the NPD process. Petersen et al. (2003) found that increased knowledge of the supplier is more likely to result in greater information sharing as well as in greater involvement of the supplier in the decision making process. Risk associated with technological uncertainty impacts the projects outcome. However, sharing information with the supplier can mitigate the risk, which can have a positive effect on the projects outcome.
6.8. Issues with ODM outsourcing

When integrating with ODMs there are several issues that firms need to be aware of. These issues relate to similarity in products that are produced within the same ODM, ODMs turning into competitors, interdependence of the ODM, product quality and sustainability. These issues were found to be the most important and should be taken into account when starting ODM outsourcing (Feng & Lu, 2012). This framework was chosen due to its specific focus on ODM outsourcing in the electronics industry. We have not been able to find any other research that is as specific to ODM outsourcing in the electronics industry and we therefore believe the framework can contribute with important finding that can be used to analyse whether the thesis case company has encountered any of the issues and how these can be avoided.

<table>
<thead>
<tr>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diluted product differentiation</td>
</tr>
<tr>
<td>The ODM industry is mainly dominated by large ODMs and a few small ones (Feng &amp; Lu, 2012). Because of that, many of the larger OEMs that could be competing could end up using the same ODM, thereby ending up with similar products. ODMs often set up separate divisions in R&amp;D, sales and factories in order to mitigate that risk. However, inter-departmental sharing could still occur. Many of the products are so commoditized that many of the ODMs can gain benefits in scope economics by leveraging resources and knowledge across products of different OEMs (Feng &amp; Lu, 2012).</td>
</tr>
<tr>
<td>Competition</td>
</tr>
<tr>
<td>In the beginning of the 80s and 90s OEMs helped ODMs build the capabilities needed to design and produce products. However, now an ODM can be seen as a competitor to an OEM. This is seen from the case where BenQ, a larger ODM, started producing mobile phones under its own brand, which led to the loss of Motorola as a customer. It did not end well for BenQ, as it lost a lot of money on the strategy and therefore, as of 2005 refocused on being an ODM. Acer was more successful as it started of as an ODM and then evolved in to the 4th largest PC producer and a global brand (Feng &amp; Lu, 2012). ODMs can therefore serve as a viable threat to established ODMs.</td>
</tr>
<tr>
<td>Dependence</td>
</tr>
<tr>
<td>Small ODMs are very dependent on their OEM partners, and therefore sudden</td>
</tr>
</tbody>
</table>
of OEMs drops in volume can have fatal consequences. Taiwanese and South Korean ODMs also risk losing business to emerging economies; one of the things ODMs compete on it is low-cost labour (Feng & Lu, 2012). The OEMs can benefit from the dependence of ODMs in terms of loyalty. However, the OEMs should also be aware of the consequences this dependence can have, such as loss of the entire business, if the ODM goes bankrupt.

Product quality Around USD 700 Millions are spent every year on safety re-calls on products in the US. Because of the high speed of the industry, many companies are facing fierce competition and have to come out with new products more and more often. Therefore, choosing an ODM operating in a fierce competitive environment can therefore have consequences for the quality of the products produced.

Working conditions In later years many scandals regarding the working conditions in especially Chinese ODMs have unfolded. Long working hours, low wages and verbal abuse have been some of the issues (Feng & Lu, 2012). To get rid of a bad reputation takes a long time, and many of these scandals can have long-term damage to a firm’s reputation.

Sustainability Many OEMs have pushed for more sustainable products and often OEMs provide ODMs with guideline for environmental products as well as push for carbon reduction. However, many ODMs located in regions with lower environmental standards might slip off the radar (Feng & Lu, 2012).

Table 5. The issues related to ODM outsourcing.

6.9. Issues regarding competition from ODMs
Arruñada & Vázquez (2006) present a best practice on how to avoid your contract manufacturer becomes your competitor. Arruñada & Vázquez (2006) write about CMs, however, as written in the definitions, we see CMs and ODMs as very similar and the only thing that differentiates them is that ODMs often own the IP placed in the product. We therefore believe that this best practice is still applicable. CMs will hereafter be addressed as ODMs. The best practice was chosen because it also is specific to ODM industry. It focuses on the threat ODMs potentially pose which is relevant
for the case. By taking threats into account the case company can avoid risks related to get outcompeted by emerging ODMs in their own markets. We believe awareness of issues specific to the ODM industry enables the case company to better control the outsourcing process and thereby improve outsourcing to ODM. There is an increasing fear that the CMs and ODMs one day will bite of the very hand that feeds them, especially when integrating with them, as suddenly they have access to OEM knowledge (Arruñada & Vázquez, 2006). In order to avoid this, OEMs should pursue further specialization and pursue other markets and invest in R&D where profit margins are higher.

*Be careful what you outsource:* Tasks and processes that are critical to the core competencies, or that represent critical corporate assets, should not be outsourced under any conditions. Therefore, companies should only outsource ageing products that most likely already have been copied.

*Suit the relationship to the circumstances:* When an OEM’s product is neither new nor unique; its degree of innovativeness, complexity and maturity in the marketplace should dictate the duration of the relationship between the ODM and the OEM (Arruñada & Vázquez, 2006). Consequently, if a product’s newness and complexity demands an ODM to invest time and resources to understand how to develop and manufacture the product, the ODM will need the incentive of a long-term contract to consider these investments. Furthermore, a long-term contract will also protect the OEM’s own investment in the ODM’s learning of the production process. Further, if the product is based on complex technology it becomes almost impossible for the OEM to switch ODM. Hence, a long-term contract becomes beneficial because it prevents the ODM from breaking the alliance. If the product is based on generic components and knowledge, a short-term contract can be valuable or even advantageous for the OEM.

The authors list four types of relationships, which are very much like the ones presented by Bensaou (1999) earlier:
<table>
<thead>
<tr>
<th>Type relationship</th>
<th>Characteristics</th>
<th>Level of commitment/cost of control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market agreement</strong></td>
<td>A market agreement often exists of a contract containing very precise technical and design specifications. The level of commitment between the supplier and buyer is very low and there are a lot of suppliers to choose from. Switching costs in this type of relationship is low, as well is the level of commitment. This agreement would often be used in the Bensaou’s (1999) market-exchange profile.</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Renewable contract</strong></td>
<td>Renewable contract: A renewable contract relationship is characterized by an on-going relationship. The relationship between the supplier and buyer extends to more than a single project. Switching costs are still low in this type of relationship, but the level of commitment, cost of control is moderate. This is also found in the Bensaou (1999) market-exchange profile where the relationship might develop into long-term.</td>
<td>Low to moderate</td>
</tr>
<tr>
<td><strong>Framework agreement</strong></td>
<td>A framework arrangement is characterized by closer collaboration between the supplier and buyer as the supplier produces several different models rather than just a single product. In this relationship switching costs have increased. The agreement would be found in the captive buyer profile or strategic alliance profile (Bensaou, 1999).</td>
<td>Moderate to high</td>
</tr>
<tr>
<td><strong>Strategic alliance</strong></td>
<td>In a strategic partnership an OEM could require the ODM to commit time and resources in turns for becoming a long-term and exclusive supplier of an OEM’s premium products. The level of commitment is characterized by interdependencies and willingness to share knowledge. Switching costs are high as the number of qualified suppliers is low. This is found in Bensaou’s (1999) strategic alliance.</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 6. Organizational arrangements between the OEM and the ODM

However, it is mentioned that many strategic alliances end up developing into market agreement relationships for two reasons. Firstly, OEMs lose track of the purpose of why the strategic alliance with the ODM was formed and start pressing hard for savings. Secondly, what once was new and
unique about the product can easily become commoditised. This problem is especially evident in the high-tech industry due to short life cycles. As products commoditise, the number of ODMs that are able to manufacture the product will increase, and the motivation to continue in a strategic alliance becomes vague (Arruñana & Vázquez, 2006).

*Give trustworthy partners their freedom:* In non-commodity situations, OEMs should pursue close relationships with dependable ODMs in order to minimize IP infringement to protect their investments. This could make the ODM more dependent on the OEM. In non-commodity situations, OEMs and ODMs should commit themselves to long-term relationships so their investments have enough time to pay off. Furthermore, an OEM should enter into close collaboration with an ODM that already produces for other OEMs in order to tap into knowledge from competing firms (Arruñana & Vázquez, 2006).

In addition, it is recommended that the OEMs practice good communication. This consists of more than just audits and surveillance of the ODM. Both sides need to share their goals for the strategic partnership and to agree on norms and values. Therefore exchanging personnel helps facilitate those things and increases the likelihood of a successful strategic alliance (Arruñana & Vázquez, 2006).

*Fight ODM disloyalty by deepening distribution and customer loyalty:* OEMs can fight competition by having a strong relation to existing customers and suppliers, as this is an area where the ODMs lack behind (Arruñana & Vázquez, 2006). Furthermore, established OEMs often have a distribution network that ODMs cannot compete with. Therefore OEMs should focus on widening these. OEMs should not compete on price but focus on brand loyalty. Ultimately, customer loyalty rests with the specifications that set the OEMs product apart from the ODMs e.g. quality.

*Look beyond the dangers of your own market:* In order to fight off the competition from ODMs in the same segments the OEM can apply IP relating knowledge into other segments than just its core focus area. Therefore, OEMs should exploit this knowledge by entering new markets and avoid ending up being outcompeted by the ODM. This can be achieved by using other ODMs to enter new markets at low cost and low risk (Arruñana & Vázquez, 2006).
OEMs should execute this strategy when entering new markets outside but still related to their core competences, where their brand may still have some influence. Without ODMs, many OEMs would most likely not directly enter new markets that require up-front investments (Arruñada & Vázquez, 2006).

6.10. Thesis framework

In this section the framework for this thesis will be presented. It is based on the presented literature in the previous section. The framework depicts what should happen when a company has decided to outsource to an ODM.

In the model the first step is to decide whether to outsource for cost reasons or to acquire new knowledge. This step is based on the Rundquist & Halila (2010). When outsourcing to an ODM there will always be some degree of knowledge outsourcing involved, but the extent of it varies i.e. outsourcing of standardized products are much less complex and involves less outsourcing of knowledge activities, whereas outsourcing of knowledge-intensive products is related to an increasing degree of external knowledge acquisition. The OEM will therefore need to understand the degree of R&D that can be outsourced as well as balancing the pains against the gains related to outsourcing of R&D activities to an ODM. This step has been based on the pains and gains framework by Grimpe & Kaiser (2010).

The next step is for the OEM to find the right supplier for the right products, and this is where the model separates:

- When the OEM outsources standardized (low-complexity) products it is often with the aim of saving cost as much as possible related to designing and manufacturing of the product. The interaction between the OEM and ODM should be in terms of a market exchange profile. As the number of ODMs offering similar and standardized products is quite large, the OEM can enjoy low switching costs (Bensaou, 1999 and Arruñada & Vázquez, 2006). Therefore, arm’s length relationships are preferred over integration with the ODM when outsourcing standardized low-complexity products (Bensaou, 1999, Arruñada & Vázquez, 2006).
• On the contrary, outsourcing for knowledge is a more complex process, as there is a need for coordinating and working together with the ODM when producing the (high-complexity) product (Bensaou, 1999, Arruñada & Vázquez, 2006, Grimpe & Kaiser, 2010). This involves captive buyer profile, captive supplier profile or a strategic alliance. To establish such relationships, there is a need for integrating with the ODM (Liker & Choi, 2004, Petersen et al. 2003).

When working with ODMs, there are certain issues related to management of the relationship. These issues are based on the findings from Feng & Lu (2012) and Arruñada & Vázquez (2006) and includes issues with quality, similar products, dependence and competitiveness of the ODM, diversification as well as general advice of be careful what is outsourced and how to treat a strategic partner. The OEM should be aware of these when setting up a business relation with the ODM. This box is therefore placed in the middle.

As mentioned in the section above, integration can yield cost savings, quality increase and faster products (Liker & Choi, 2004). Integration for standardized products could therefore also happen in order to yield benefits, such as lower cost. However, as Rundquist & Halila (2010) and Grimpe & Kaiser (2010) argue, the firms who only focused on cost and volume were not as successful as those who integrated for knowledge, therefore the line is dashed. The thesis framework is illustrated below:

![Figure 12. Thesis framework to ODM outsourcing.](image-url)
The model will form the basis for the analysis where the OEM is presented to two outsourcing modes i.e. outsourcing for knowledge and outsourcing for cost. Yet, the illustration of the two outsourcing modes in the model is illustrated in extreme cases. In the scenario of fully standardized products, the OEM will have an abundant amount of information, which enables it to specify every requirement to the supplier through a contract. If successful there is no need for the OEM to get involved in the production process. On the other hand, where the outsourced product is knowledge intensive, it is much more difficult to draft a complete contract as the OEM may have limited knowledge related to the product and to a larger extent depends on a collaboration partner. However, that does not mean that this is a static model.

7. Analysis

7.1. Introduction
In this section we will analyse the findings from the empirical investigation. The analysis will be based on the thesis framework described above. The structure of the analysis will stepwise follow the framework. The first part of the analysis deals with factors that impact the choice of outsourcing of NPD activities. These factors are primarily affected by cost and access to knowledge. Next, the pains and gains of outsourcing knowledge will be examined. Thereafter, the different types of relationships GN Netcom has to the ODM suppliers will be investigated, as well as how increased product complexity calls for closer collaboration. The case study revealed that GN Netcom collaborates with ad hoc as well as strategic suppliers. Hence, we conduct an analysis to examine to what extent GN Netcom integrates with its suppliers. Thereafter we look at the supplier integration from a more knowledge outsourcing point, where technology-sharing is the main focus. As inferred by the model (and theories) there should be more integration and knowledge sharing with high-complexity products. Lastly, we address issues that are specific to the ODM industry. The final part of the summary will draw on the model to illustrate how GN Netcom conducts ODM outsourcing. The findings will then be used in the recommendations and conclusion.
7.2. Cost vs. knowledge outsourcing

Using the best practice to NPD, Rundquist & Halila (2010) states that the most innovative firms emphasized the sourcing of knowledge and competence, whereas the less innovative firms conducted outsourcing in the pursuit of cost efficiency. From GN Netcom’s perspective, the decision to outsource was initially mainly grounded in cost and capacity considerations.

Rundquist & Halila (2010) argues that the mind-set of high volumes and low cost was mostly found among the group of less innovative firms. Director of GS states the motivation for outsourcing originally was cost, as it cost 3-5 million DKK to develop a product in-house. This view is shared by Senior Director of GSCM, who adds:

“They are chosen (ODM suppliers) because of typically cost and capability. We are looking for specific product or product line that is where we decide to outsource. And it is because they can do it quick because of standard design that they have and or cost efficient”.

The cost variable and long term relationships were most significant with the less innovative firms (Rundquist & Halila, 2010). When asked directly about preferring long relationships or not, Senior Director of GSCM states:

“There has been a tendency of finding someone, and then sticking with them through good and bad and sometimes through bad times a little too long, where you would wish that we were better at exiting there suppliers that don’t perform and then just take some others in”.

This is also reflected in the contracts that at minimum run for two years, and are automatically extended if nothing is done. The contracts are based on standard and are more like a framework agreement.

While cost has been an important element in the outsourcing of products, there has also been a focus on outsourcing a product to an ODM that have more knowledge about certain technologies than GN Netcom did. The ANC headphones are an example of how GN Netcom has outsourced a product to an ODM, where GN Netcom did not have the in-house capabilities to make the product and therefore sought to produce the product in a joint development project. GN Netcom is also
running two other joint development projects at the moment, where GN Netcom has clearly defined what technology it can provide and what is needed from an external partner. This means GN Netcom sometimes needs to acquire new knowledge in order to produce a product. Even though one could argue that GN Netcom therefore also outsources for knowledge reasons, cost again is claimed as being an important part of the outsourcing process, as it would be relative large investment to bring GN Netcom’s engineers up to the same level up technical expertise within the given technology. If the product becomes successful, GN Netcom will invest in the technology and start producing the product in-house. When entering new product segments GN Netcom prefers to enter the segment through a product from an ODM to find out whether the product will sell in the market and avoid carrying the risk and cost by developing the product internally.

In the study Runquist & Halila (2010) also found that good enough knowledge is more important than low price or world class knowledge, as long as it solves the problem. According to VP of R&D GN Netcom does not use state-of-the-art knowledge in terms of sound, however, states that within consumer electronics and office use, GN Netcom is in top three quality producers in the world. When asked directly if the company’s strategy is to go for state-of-the-art or just sufficient knowledge Senior Director of GSCM replied that there is no fixed strategy:

“For many of the ODM partners we get, it happens that we see some in the market who have something we would like, it is more the capabilities that chose them for, you can say the capabilities on a production level more than is it that we go in and make a thorough analysis of their real competences”.

The focus is therefore more on capabilities than finding the right type of knowledge. Director of GS and Senior Director of GSCM both agree that GN Netcom holds the capabilities and the technology needed to produce whatever they outsource to ODMs “You can say that there is nothing in it that we couldn’t make ourselves. It has never been like that” (Director of GS) and as a result there is no reason to outsource for knowledge reason to any of the current ODMs, except for when entering a new market, as mentioned above.

However, VP of R&D disagree with this to a certain extent, as he believes that the strategic ODM (Fujikon) has competences in manufacturing products and providing solutions, which GN Netcom
cannot perform internally (but will be able to build if invested in). VP of R&D explains that ODMs are primarily chosen for their skills in design and manufacturing, not because of their technological expertise. It therefore seems to be a disagreement in terms of what the ODMs can be used for. Furthermore, it seems that the Director of GS and Director of GSCM believe that it is mostly cost reasons and that the ODMs are there to be capacity filler.

By relying extensively on ODM capabilities, GN Netcom runs the risk of competence drain. Rundquist & Halila (2010) found that the best performing firms took competence drain very seriously. According to Director of GS, competency drain does not worry him, for the same reasons as mentioned above. All three directors agree that GN Netcom would be able to develop skills if needed. GN Netcom therefore does not take the threat of competence drain very seriously as the company believes that it will be able to develop the production or technology capabilities itself, if needed.

It seems that the company is situated somewhere in the middle, where it does both cost and knowledge outsourcing typically for the same product (as seen with ANC headphones and in many of the joint development projects). What further adds to the confusion is the fact that VP of R&D and the two other directors have different opinions on what the ODMs skills are, and therefore also what the ODMs can be used for. Furthermore, there is no fear of competency drain by the two directors, as they believe GN Netcom has superior capabilities compared to the ODM. This however, is self-contradictory, as GN Netcom sometimes has to use the ODM for knowledge or other skills that it does not itself possess.

If GN Netcom was to focus more on sourcing new knowledge instead of focusing on cost savings, there could be a higher success rate according to the findings of Rundquist & Halila (2010). However, as GN Netcom still choses to outsource for cost and also engaging in long-term relationships, the long-term performance of the firm could be damaged as a result.

7.3 Pains and gains

Acquiring new knowledge in terms of R&D can have a negative impact on a firm’s internal innovation capabilities. Furthermore, over-outsourcing of R&D also poses a serious threat to a firm’s innovation performance, as it can erode the core competences of the firm (Grimpe & Kaiser,
Therefore, it is necessary that the management of the firm takes a balanced approach to acquiring external knowledge. Grimpe & Kaiser (2010) provide evidence that sourcing of knowledge can improve innovation performance up to a certain point, and here after an increasing level of R&D outsourcing will have a negative impact. When asked how much R&D GN Netcom outsources to ODMs, Director of GS states that “as long as there is no pressure from the market or senior management I assess the 80/20 distribution will remain as it is”. VP of R&D confirms this distribution, but he sees the distribution as a function of two independent variables:

“If you see it from a flexibility perspective, not a cost, then 20% is a reasonable number. If you in some periods work on eight projects, and in some work on ten or 12 then it is appropriate to have a 20% variation. However, if it is a matter of cost then you would not do it to handle peak loads but also do it in situations where it is cheaper”.

Currently, GN Netcom outsources around 20% of its GN Netcom product categories. In these categories cost has been the deciding factor for outsourcing. As previously stated, the original strategy was to outsource low-complexity products where little R&D knowledge was required from the ODMs, and keep all the high-complexity, more knowledge intensive products in-house. However, many high-complexity products were outsourced and the low-complexity remained in-house, because GN Netcom was able to produce higher volumes of the low-complexity products than the ODMs cheaper. This could also have had an effect on the 80/20 split. However, Director of GS does not know why the split is 80/20. It has been stable around that for some years, and he does not expect it will change in the future.

As stated earlier the key driver to ODM outsourcing builds on the fact that GN Netcom has realized that it must keep R&D costs and operational expenses constant simply because it cannot afford to take the risk of investing in new product categories and still produce everything in-house. Thus, Director of GSCM believes that the split is a safeguard to keep in-house staff occupied and prevents lay-offs. Yet none of the interviewees could give a clear cut answer to why GN Netcom has decided on keeping 80% of the development activities in-house and outsource the remaining 20% to ODM suppliers. The interviewees all confirmed that in order to stay competitive, some development activities had to be shifted overseas in order to improve innovation and thereby create more products.

When asked how much GN Netcom can outsource with the aim of improving innovation
performance VP of R&D said that it depends on the duration of the work with the ODMs. As he sees it there are two solutions, 1) there is an R&D department in Denmark and Xiamen (China) as well as some ODM partners, or 2) shift the entire R&D from the Xiamen department to ODMs. However, many ODMs do not stay in business for more than three to four years, hence it makes it difficult to improve innovation through the same ODMs.

In order to improve innovation performance in-house, GN Netcom needs to free up resources, and this can be done when the ODMs do not need any assistance from GN Netcom (often this was in the shorter projects lasting between 8-18 months). Therefore, it is often better to outsource low-complexity products that do not need a long-term R&D effort to ODMs, whereas the Xiamen department can receive the more knowledge intensive products VP of R&D believes.

All the interviewees recognized that it was important to shift some development activities to China. However, they were less clear on whether it should be off-shored to the department in Xiamen or outsourced to an ODM. This is interesting for a couple of reasons. First, it is evident that the VP R&D prefers not to outsource to ODMs when the duration of the projects exceeds 18 months since the ODMs typically do not stay in business. This makes it difficult for him to trust them and this is one of the reasons why his employees have a hostile attitude towards working with these ODMs. GN Netcom has success with ODM outsourcing to ad hoc suppliers when the duration of the projects is short and the relationship is not a strategic one. On the one hand, this might be because there are several suppliers in the market that have the necessary competences and experience to manage the ad hoc projects and therefore there is no need for GN Netcom to spend internal resources on training the ODM supplier. On the other hand, it can also be because projects that are outsourced to ad hoc suppliers may not be of interest among in-house R&D staff, and therefore they do not see any reason to oppose this.

Second, the duration of projects outsourced from Denmark to a strategic ODM partner typically ranges between 18 months to four years. Keeping in mind that an ODM supplier seldom stays in the market for more than three to four years and it requires a lot of training when outsourcing a project to ODM partners, in-house R&D staff may fear losing their job if the strategic partner turns out to be successful, which can result in prestigious projects being shifted overseas. When GN Netcom entered the music segment it established a joint development program with Fujikon and outsourced the entire project when introducing in-car speakerphones. One could argue that in-house R&D would want to keep these development projects internally rather than developing it jointly with
outside engineers or completely outsource to the ad hoc suppliers. Therefore there is a conflict of interest when in-house R&D has to allocate time to train strategic ODM partners.

Director of GS on the other hand sees benefits in working with ODM suppliers, and sees no problem in outsourcing entire product segments in low to mid complexity product ranges: “My personal approach is if it is cheaper to buy it from an ODM than developing it in-house, then I don’t see any problems in doing it this way, but that is my personal philosophy”. However, he acknowledges the fact that GN Netcom should not outsource everything because the ODMs quality standards of products are not high enough yet and using too many ODM products could potentially erode the competitive advantage of the firm as well as damage the brand.

Further, one of the main issues in Project Gazelle has been to get a more seamless structure around what can be outsourced to ODMs and clarify to what extent low to mid complexity products can be outsourced. When Director of GS was asked whether GN Netcom would have to outsource all its low-complexity products in order to stay competitive in the future his reply was that this could very well become the case. VP of R&D opposes this view as he sees it from a practical point of view and states that GN Netcom does not need to outsource to ODMs when the products are too small in terms of size because the off-shored department in Xiamen is efficient enough in producing small products. These products are typically the low-complexity products that are kept in-house in Xiamen department.

Clearly there are opposing views in the organization as to what extent R&D can be outsourced. One view is based on the lack of trust in strategic ODM partners and does not see them as the preferred partners to outsource innovation activities to simply because it is a waste of internal resources. Further it does not make sense to outsource all low to medium complexity products from an R&D perspective when products are small, as the department in Xiamen is more efficient in producing them. The other view supports outsourcing to ODM if GN Netcom can save costs, but this has to be weighed against the potential pitfalls in terms of dilution of core competences.

7.3.1. In-house R&D
Grimpe & Kaiser (2010) argue that the most in-house R&D intensive firms benefit the most from sourcing external knowledge. These firms focus on internal resource creation and developing
integrative capabilities, which are defined as the ability to share information between partners, when working towards a common goal (Grimpe & Kaiser, 2010) in order to integrate external knowledge and pool it with internal knowledge, and thereby enhance innovation performance.

According to the Director of GS, GN Netcom still invests in internal R&D, but he does not know what the exact amount is but it will remain constant for a while. Internal documents reveal that the R&D budget will remain stable at least until 2015.

When asked whether GN Netcom invests in developing integrative capabilities (redeployment of knowledge) of the firm when entering new product categories, VP of R&D explains that a project is monitored very closely in the beginning; so much that GN Netcom easily can reproduce it. Furthermore, when a new project is launched “…we choose a supplier we perform reverse engineering of a similar product made by a competitor in order to get a technological insight into how to build the product” (VP of R&D). Therefore, there is not much focus on integrative capabilities. Thus, VP of R&D believes GN Netcom acquires knowledge from ODM outsourcing, which adds to the knowledge base of the firm. Director of GS and GSCM did not agree when asked whether GN Netcom takes knowledge from ODM partners and integrates it with internal knowledge. However, both Director of GS and VP of R&D acknowledge that GN Netcom continuously works on developing the same capabilities in case of disruptions or disagreements with the ODM supplier so that GN Netcom engineers would be able to finish the project.

Grimpe & Kaiser (2010) argue that collaborative R&D has a positive benefit on innovation performance and firms may increase the chances of preventing dilution of firm specific knowledge by having a strategy in place as to how internal and external knowledge can be integrated (Grimpe & Kaiser, 2010). GN Netcom does not get access to any knowledge when outsourcing to an ODM takes the form of blueprints or specifications. This is of no concern among the interviewees.

The approach of not redeploying knowledge also applies when working in joint development projects. This is specially carried out in product categories, which GN Netcom has no prior experience in. When asked if GN Netcom has any strategy concerning bringing back and integrating knowledge created by the ODM partners in joint development projects, Director of GS states that the knowledge GN Netcom creates belongs to them exclusively and the same goes for the ODM.
VP of R&D adds that it is easier to work jointly when the products are bigger physically, as the two teams can work separately. He further explains that the purpose of joint development rarely is to develop any IP related knowledge with the partner. Rather he sees it as a collaboration where GN Netcom brings one solution in one area of the products and the ODM does the same. It is quite often cost that is the underlying factor behind joint development activities rather than knowledge sharing and the enhancement of GN Netcom’s internal knowledge base.

Further, Grimpe & Kaiser (2010) argue that managerial attention is needed to manage external relationships with R&D contractors. According to Director of GS management devotes a lot of time to discuss improvement of internal capabilities in order to improve ODM outsourcing. Externally, GN Netcom invests a lot in building trust by meeting in person with the strategic ODM suppliers before awarding them the first contract. Internally, VP of R&D, Director of GS and Director of GSCM highlight that they invest a lot of their time to inform and try to convince its internal stakeholders not to be intimidated and hostile towards the ODM project. Internal documents reveal that a strong engineering culture and a “not-invented-here” mind-set are to blame for the lack of success.

7.3.2. Does GN Netcom take the “pains” seriously when outsourcing to ODM’s

The analysis from above revealed that GN Netcom has previously experienced problems in terms of suppliers lacking the required capabilities in the preliminary stage of the relationship. This is one of the most common problems firms encounter when outsourcing development tasks to suppliers. This often forces OEMs to manage, control and steer the project when outsourcing R&D activities (Grimpe & Kaiser, 2010). GN Netcom went through the same process when ODMs were introduced to the organization. GN Netcom had to take over and assist suppliers that were not able to manage projects, which in the end had to be taken over by in-house engineers. However, this issue leads back to the lack of experience and how to manage the relationship with the ODM suppliers.

So far the ODM experience has not only called for increasing management attention towards managing and developing the relationship with the ODM suppliers, but also taking management time to overcome internal resistance towards the inclusion of ODM suppliers in the organization. Not only has management faced the “pains” from spending many hours trying communicate to the organization that outsourcing to and partnering with ODM suppliers is not a threat to the existing
structure of the organization. Furthermore, the management also has allocated notable time in developing personal relationship with the ODMs, while assessing the capabilities of the strategic suppliers in order to avoid working with overpromising suppliers.

With reference to Director of GS’s comment, management has devoted a lot of time to discuss how to improve their capabilities of handling the ODM outsourcing process in a seamlessly manner in order to learn from and mitigate the pains that the ODM experience so far has caused. However, management also struggles with internal resistance and mistrust among in-house engineers towards working with external partners in joint development activities. According to Grimpe & Kaiser (2010) acquiring knowledge from external suppliers can cause a ‘not invented here’ syndrome which may lead to reluctance of in-house R&D to accept and adapt to the externally acquired technology. Internal documents reveal that there is a strong “not invented here” attitude towards contributions made by the ODM suppliers and this is one of the main issues the organization is struggling to overcome.

As stated earlier, GN Netcom is convinced that the strategic ODM suppliers are not technologically superior and cannot contribute with enhancing GN Netcom’s internal knowledge base. Consequently, management is not concerned with any competency drain or dilution of the firm’s knowledge base. Nevertheless, they have knowledge concerning building the products which GN Netcom benefit from. Therefore, GN Netcom could enhance its knowledge about the architectural design of the products. Generally speaking, the interviewees provided an ambiguous explanation when asked whether GN Netcom redeploy knowledge acquired from the ODM partner. Only VP of R&D believes GN Netcom to some extent redeploy knowledge into the firm’s knowledge in order to develop in-house capabilities. This is done by monitoring development projects closely and by conducting reverse engineering.

GN Netcom primarily uses its strategic and ad hoc ODM suppliers to get access to segments that it has no prior experience with. The BT knowledge is highly generic, which the competitors have equal access to. Since the BT knowledge is standardized and generic, Grimpe & Kaiser (2010) argue that it can dilute the firm’s innovation capabilities if it relies too heavily on external knowledge. This is the case when with the low-complexity products. Yet, GN Netcom is well aware of this and believes that GN Netcom products differentiate themselves from the competitors on quality.
Furthermore, Grimpe & Kaiser (2010) warns against pains related to joint development programs because IP rights can be difficult to allocate, which can lead to disputes. However, GN Netcom does not believe they incur any pains related to IP disputes because the purpose of joint development activities rarely is knowledge exchange or development of any IP related activities. Yet, management allocates time to manage external relationships with the strategic suppliers to create seamlessly relationships with the ODMs. According to VP of R&D this has been evident in joint development activities where GN Netcom has spent time on assessing Fujikon’s capabilities and how they can contribute in joint development projects.

Findings from Grimpe & Kaiser (2010) also suggest that the most innovative firms focus on internal resource creation and developing integrative capabilities in order to integrate external knowledge, and pool it with internal knowledge to enhance innovative performance. Since GN Netcom has to keep R&D budgets constant over the next year it can lead to erosion of in-house capabilities if the dependence of external knowledge acquisition increases in the segments where GN Netcom does not have any superior knowledge, i.e. segments such as the music category and ANC headphones.

GN Netcom has so far experienced some of the pains that Grimpe & Kaiser (2010) refer to. The question is whether GN Netcom invests sufficiently in internal resource creation and development of its integrative capabilities to mitigate the pains related to outsourcing specific R&D activities. In the short to medium-run GN Netcom benefits from controlling its operational cost. However, if GN Netcom becomes too dependent on the ODMs ability to innovate products it can dilute firm specific knowledge and competences in the long run. One could argue that management has learned from previous experience by thoroughly assessing supplier capabilities to mitigate the risk of ending up with saving projects outsourced to suppliers. Yet, management does not feel threatened by the competitive landscape in which GN Netcom’s competes due to the low technological capabilities and know-how the ODMs possess. Based on the fact that GN Netcom is being challenged in the Mobile segment due to changing consumer preferences, there is an urgent need for gaining knowledge in growth segments as demand for BT headsets have stagnated. Consequently, GN Netcom needs to strengthen its knowledge in the growth segments by working with the right suppliers. However, this needs to be balanced with developing in-house capabilities to prevent GN Netcom from becoming too reliant on its suppliers. Instead of only supervising and conducting reverse engineering, GN Netcom can improve its capabilities by aggressively tapping into
knowledge provided by the strategic ODM suppliers. As for now this is taking place in a limited scope. In-house engineers continuously work on their capabilities in case of any unforeseen incidents that could force them to take over the project.

7.4. Aligning the relationship with the product

When engaging in NPD activities it is essential that the chosen supplier possesses the right capabilities to develop and produce in conformity with what was agreed upon. In addition, the buyer-supplier relationship needs to be managed accordingly to the complexity of the product and the market they operate in. Therefore, teaming up with the wrong supplier can lead to waste of scarce resources and a mismatch in capabilities can lead to disastrous outcome (Bensaou, 1999). If the aim of the partnership is getting access to complex technology or knowledge, the buyer-supplier relationship needs to be managed so that the outcome of the partnership is greater than if the OEM had to carry out the development in-house.

Bensaou (1999) has created a framework for how to match relationships to products that are built around complex or highly standardized technology. When dealing with products that require customized components or consist of highly integral components, the relationship between the buyer and supplier needs to be assessed and managed on an on-going basis. Arruñada & Vázquez (2006) supports Bensaou (1999) and recommends integrating with the supplier when the nature of the technology is fast changing and within a volatile market. As stated above Bensaou mainly focuses on the supplier and product characteristics, whereas Arruñada & Vázquez (2006) emphasize the importance of contracts in order to protect the OEM’s investments in the buyer-supplier relationship.

Arruñada & Vázquez (2006) argue that the degree of innovativeness, complexity and maturity of the product in the marketplace should dictate the duration of the relationship between the ODM and the OEM. Therefore it is vital to manage the relationship with the ODM according to circumstances that would enable the OEM to create value by outsourcing to a supplier.
7.4.1. Types of relationships suited for knowledge acquisition

7.4.2. Strategic Partnership

Both Arruñada & Vázquez (2006) and Bensaou (1999) argue that strategic partnerships suit products that require integration due to high technological uncertainty and changes in the industry. When there is invested in the supplier in terms of production set up, and there is high risk and potential damage involved if the suppliers act opportunistically. Bensaou (1999) states that strategic partnerships are preferred when the market is surrounded by high technological uncertainty concerning the direction of the technological development. Arruñada & Vázquez (2006) add that the degree of innovativeness and newness of the product should dictate the nature of the relationship. In strategic partnerships the suppliers and buyers are often involved in a long-term relationship and both parties are mutually dependent on each other as the supplier often has developed skills to suit the buyer’s requirements.

GN Netcom has developed a strategic partnership with Fujikon concerning some product categories in the high-complexity segment. Especially product categories in which GN Netcom has had no previous experience with e.g. headphones in the Music segment was important in choosing that supplier. GN Netcom will soon begin working with a second strategic supplier, which was chosen because of its capabilities in producing across multiple segments in the low to mid complexity segments.

It is therefore not access to technology that motivates GN Netcom when forming a strategic partnership. GN Netcom primarily chose its strategic suppliers because of capabilities to produce and craft a product better than GN Netcom. With reference to Bensaou (1999) and Arruñada & Vázquez (2006) when it is suitable to form strategic partnerships the above stated quote reveals that GN Netcom mainly picks strategic suppliers based on their capabilities to assemble products rather than their technological knowledge. Furthermore, as mentioned earlier, the technology, which constitutes GN Netcom’s core competencies such as BT, is highly mature and standardized. This creates a gap between the recommendations of when to engage in a strategic partnership, by Bensaou (1999) and Arruñada & Vázquez (2006), and how GN Netcom acts. Therefore VP of R&D was asked how he would define a strategic partnership. He answered:
“A strategic partnership is a business partnership, so you can say, that they need to make money on it and we need to make money, but we look further ahead than just the current order or project we are running. Many ODMs would like to call it strategic if they can make money, and then it is fine, then we can call it what we want. But it lasts longer that just one project and it is thought of as ongoing”.

A strategic partnership for VP of R&D is therefore illustrated as one that is long term and where both parties make money, not one where they collaborate and invest in each other. Arruña da & Vázquez (2006) state that many strategic relationships end up in market agreements, because the OEMs press for savings. Furthermore, what once was unique will over time commoditize, as a number of competing ODMs will be able to produce similar products. This has been the case for BT and the reason why there are a lot of ODMs who can supply products with BT technology. In terms of pressing for savings, GN Netcom always does that, but Director of GS is in doubt whether this is the right strategy:

“We always press them on price. This applies to the strategic ODM partner as well. You could question whether this is the right way to do it. We usually benchmark against our own products and assess whether some of them that are developed externally could be made in-house”

Therefore, based on GN Netcom’s expectations and its willingness to invest in its strategic ODM partner there is a gap between what is recommended and how GN Netcom understands a strategic supplier and manages the relationship. Arruña da & Vázquez (2006) state that the level of commitment in a strategic partnership is characterized by interdependencies and willingness to share knowledge. There is some interdependency between GN Netcom and Fujikon when for example jointly developing the Music headphones.

All of the BT products, which GN Netcom will start outsourcing to the new strategic ODM are based on generic technology and the market for BT products, according to Director of GS, is stable, meaning there it not a need for new products every six months. The focus now is only on new features of the product, however he does not believe that features need new innovation, as a headset primary task is to answer calls and turn volume up or down. Therefore, following the frameworks by Bensaou (1999) and Arruña da & Vázquez (2006) it could be argued that the BT products GN
Netcom are not suited to be developed in strategic partnerships, which lead to an overdesigned relationship and unnecessary transactions. Therefore, GN Netcom can also lose out on the market mechanisms when outsourcing NPD activities in the low to mid complexity segment to the second strategic supplier. Instead of forming a strategic partnership, a framework arrangement (Arruñada & Vázquez, 2006) is more appropriate for outsourcing multiple products, which would still leave room for GN Netcom to exploit the abundant amount of suppliers capable of producing in the low to mid complexity segment.

The degree of uniqueness and innovativeness in the products developed in collaboration with Fujikon is higher than products developed by the second strategic supplier. However, there are multiple suppliers that hold technological capabilities in developing the ANC headphones and the Music headphones.

By pressuring the strategic partners for savings GN Netcom contributes with undermining the very existence of the strategic partnerships by acting opportunistically and not rewarding partners that perform well (Arruñada & Vázquez, 2006). Despite GN Netcom’s desire to form long-term strategic partnerships, the relationships are managed in a way that would be suitable for market agreement relationships (Bensaou, 1999).

### 7.4.3. Captive-buyer Profile

In this type of profile suppliers and buyers need to work together in order to create complex components, as they require some customization. Most important is that there are few suppliers in the market, which also give them a strong bargaining power. Often in these types of situations NPD activities are kept in-house.

According to VP of R&D, the only segment in which there is a captive buyer profile is within the CC&O segment. There are only a few suppliers, since there are only are two players in the market GN Netcom and Plantronics hardly ever outsource, which means that there are few suppliers that can support the solutions. Consequently, GN Netcom do not outsource in the CC&O segment, which is in line with Bensaou’s (1999) framework.
7.4.4. Captive supplier profile
The buyer should manage its supplier relations through this profile when the products are highly complex based on new technology that are exclusively developed and owned by the supplier. The products and technology are high in demand, but there are many suppliers in the market and often one supplier develops new technology faster than the rest, which limits the bargaining power of the rest of the suppliers. In order to succeed there is a need to match coordination, information and knowledge exchange requirements to this type of relationship. A good example is found in the case with the ANC headphones. According to VP of R&D, there are many suppliers that support ANC, which has become high in demand. At the moment the strategic supplier, Fujikon, produces the ANC headphones.

In the strategic relationship with Fujikon, GN Netcom and Fujikon exchange demand forecasts. In addition, GN Netcom has people on site conducting quality check-ups. However there is limited technological knowledge exchange. For all joint relationships (which this one matches), the knowledge or technology that is created is owned by whoever produces it. Therefore, there exists no exchange.

In this type of profile of products and relationship, it is also important that the OEM can switch to the suppliers that offer newer and better performing solutions. However there is of course higher switching cost associated with a more complex product. GN Netcom would therefore not gain anything from entering into a strategic long-term relationship in this type of profile.

7.4.5. Matching the right supplier with the standardized product
Bensaou (1999) and Arruñada & Vázquez (2006) both state that the standardized products should be outsourced to the ad hoc suppliers. While Bensaou (1999) is more concerned with the market and product characteristics, Arruñada & Vázquez (2006) looks at the contract and relationship specifics. In this section an analysis based on both frameworks will be made.

7.4.6. Market-exchange
In the market-exchange situation partners only exchange information when bidding and doing contract negotiation. This profile is mainly suited for standardized products without any products that require limited interaction between the buyer and the supplier. These products could be the
low-complexity standardized BT products, which many suppliers in the market are able to make (according to Director of GS) or off the shelf products. Because there are many suppliers in the market, there should be low switching costs, low commitment to each other as well no need to develop a long-term relationship with suppliers (Bensaou, 1999, Arruñada & Vázquez (2006)).

In this type of interaction a market agreement is based on a contract containing very precise technical and design specifications (Arruñada & Vázquez (2006)). This is consistent with what is done on GN Netcom’s side. The company prefers as little interaction as possible. When the specifications of the product are send out, the ODMs are supposed to handle everything themselves. As the Director of GS explains:

“..then there are the ones I would call design manufactures, the ones where you give the specifications and then the people will make if for you, but they don’t have any understanding of what you ask them to make, and they cannot themselves come up with the idea of how to make it”

This shows that these types, design manufactures, of ODM partners are the ones that can be used to manufacture the low-complexity products, but they cannot be used for more than that according to GN Netcom.

When asked if GN Netcom could benefit from using different suppliers, VP of R&D states that there are diverging views on it. One is that it takes time for two companies to work together, even if it is only in regards to sending specifications to an ODM, which then develops and manufactures the product. This is one of the reasons to the previously mentioned problem of GN Netcom sticking too long with its ad hoc suppliers. A lot of time has already been invested in the relationship and according to Director of GS, certain people would not like to lose that. According to Director of GS, many of the ad hoc suppliers have been regarded as strategic suppliers in the beginning, but ended up as ad hoc because they did not perform. VP of R&D states that the on-going relationship was due to the fact that some in the organization want them, but because of the changing technology demand, they need to switch suppliers and therefore some of the ODMs become ad hoc.

Another problem relates to the volume of products placed at the supplier, VP of R&D believes that with very small and standardized products management and quality check-up will cost almost the
same as for the ODM to develop the product. For that reason, some of the ad hoc suppliers get their contracts renewed but the working relationship is held at a minimum. According to Arruñada & Vázquez (2006), renewable contracts can be found in the market exchange profile, where switching costs are still low.

GN Netcom does have products that would be eligible for market exchange, especially the more standardized products that use Bluetooth technology in the low to mid complexity segments. As VP of R&D states that with small products such as earplug headphones GN Netcom has changed ODMs many times, because of cost and quality defects, He elaborates that the company wants a strategic supplier, who the company can stay with.

When GN Netcom finds new suppliers they are often perceived as fantastic in the beginning, according to VP of R&D. However, GN Netcom has not been able to provide enough volume, which has limited GN Netcom’s bargaining power, and the company has therefore received C-team engineers. This has been a general problem when GN Netcom uses ad hoc suppliers, because GN Netcom cannot sustain the volume or give the ODM enough projects contrary to its competitors. According to VP of R&D it is a serious problem and he believes that is the reason why GN Netcom groups many product ranges with the same supplier.

Furthermore, the buyer would also not be able to exploit the market. This is what GN Netcom suffers from, since they have insufficient volume to increase their bargaining power to get the ‘A-team’ from an ad hoc supplier. It is also because it is cheaper for the company to produce many of the products in its offshore location in Xiamen, China. This could indicate that GN Netcom puts too much effort into the relationship, without really reaping the rewards for low switching costs and many suppliers. Furthermore, a supplier commitment may give rise to the problem stated previously, meaning that GN Netcom has a hard time in firing suppliers. GN Netcom commits to the ODM supplier much more than necessary. This results in GN Netcom spending unnecessary resources and money in building a relationship with a supplier, when it would be better off by switching to another supplier capable of producing a similar standardized product for them.

Moreover, having many ad hoc suppliers means that some of these suppliers will have their contracts renewed or new contracts will be written. Either way, it means that GN Netcom has an on-
going relationship that needs to be managed. This could be one of the reasons why GN Netcom claims that it does not want a relationship with the suppliers, but ends up having spent much more time on the relationship than anticipated.

7.5. Integration with suppliers
Bensaou (1999) and Arruñada & Vázquez (2006) both argue that when a product is standardized, commitment and integration with suppliers is not a viable strategy. Therefore, integration should be kept to a minimum. According to the Director of GS and Senior Director of GSCM GN Netcom intends to do the same.

When first asked about whether GN Netcom integrates with its suppliers, Director of GS answered no. However, in his second interview he explained that in the case of the strategic supplier, GN Netcom does help the supplier sometimes in terms of defining areas that needs to be improved. However, it is the intension that the ODMs should be able to improve their capabilities by themselves. Furthermore, in some of the joint development projects, with the strategic supplier, employees from the ODM visit GN Netcom as well as they visit the ODM in order to work on the projects.

Director of GS states that the company does share some knowledge with their ad hoc suppliers (to raise the capabilities): “the knowledge they sometime make use of, for example our demands to quality, shows them how to lift the level for their mechanical solutions in order to meet our demands”. GN Netcom therefore undertakes some degree of integration with ad hoc ODMs by presenting them with solutions containing information to meet their quality requirements. As a result, GN Netcom integrates when producing Low-complexity products as well as when high-complexity products are produced.

From above it is seen that there exists some confusion whether GN Netcom integrates with ad hoc and strategic suppliers and to what extent they integrate. Bensaou (1999) and Arruñada & Vázquez (2006) found that integration should not happen for low-complexity products that can be produced by an ad hoc supplier, but Grimpe & Kaiser (2010), Bensaou (1999) and Arruñada & Vázquez (2006) stress that with high-complexity products, more integration is necessary.
In the following section an analysis will be made to assess to what extent GN Netcom integrates with ad hoc strategic suppliers by applying the models of Liker & Choi (2004) and Petersen et al. (2003)

7.5.1. Six steps to integration
The analysis will first be conducted based on Liker & Choi (2004) in order to determine the degree of integration for both strategic and ad hoc suppliers. The analysis is divided into 6 steps, where either some of the points might only relate to ad hoc or another might only relate to strategic.

<table>
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<th>Step 1 – Understand how your supplier works</th>
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<td>• Find out how your supplier works</td>
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<td>• Learn about supplier’s business</td>
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<tr>
<td>• Go and see where suppliers work</td>
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<tr>
<td>• Respect supplier’ capabilities and commit to co-prosperity</td>
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Relevant for ad hoc and strategic ODM suppliers

In the early stages of any relationship GN Netcom visits the ODMs to gain an understanding of supplier capabilities and how the business is operated. In the preliminary phases GN Netcom brings an engineering team as well as quality team on sight to evaluate and assess the ODM’s capabilities.

To some extent GN Netcom commits to co-prosperity. This is seen from comments made by VP of R&D who states that both parties need to make money. However, co-prosperity in terms of developing new skills or business areas with mutual benefiting outcomes is very limited. When Director of GS was asked if GN Netcom would be interested in developing capabilities and thereby integrating further with a supplier, he stated that he was against it and further elaborates:

“The whole point about using an ODM… when it becomes a win-win is when they have knowledge, which they can share generically across various products, sell to different customers and thereby, the development cost for this technology get spread out right. If we now need to bring these specifics suppliers audio quality up significantly, we would spend that money and we would
It is therefore evident that GN Netcom is not interested in developing capabilities or integrating with suppliers, but GN Netcom does visit the ODMs and learn about their capabilities. GN Netcom respects the ODMs’ capabilities to produce a product to some extent as GN Netcom still keeps using the ODM, as well as by focusing on ODM outsourcing.

Generally, the interviewees’ perceptions of the ODMs were characterized by lack of trust, as found in previous sections, in their capabilities to manage technologies better than GN Netcom. The statements made by the interviewees of not acquiring technology are to some extent contradictory in the sense that GN Netcom worked with an ODM in joint development to get access to the ANC technology, since developing it from the bottom would be time consuming and an expensive solution.

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**Step 2 – Turn Supplier Rivalry into an opportunity**

- Source each component from one to three vendors,
- Create compatible production philosophies and systems
- Set up joint ventures with existing suppliers to transfer knowledge and maintain control

**Relevant for ad hoc and strategic ODM suppliers**

GN Netcom does not source the same products from different vendors, as they need to place sufficient volume at the ODMs in order to get the best engineers. However, GN Netcom works towards creating compatible production systems, such as postponement activities. GN Netcom only run postponement and customize to order with the EMS in Xiamen since none of its ODMs have the capabilities to do that, as exemplified by the SP of GSCM:

“We have not implemented that (postponement) until this point in time. However, starting next year we should be in a position where with one or two of them we will start […] but it depends very
Step 3 – Supervisor your suppliers

- Send monthly report cards
- Provide imitate and constant feedback
- Get senior management involved in solving problems.

Relevant for ad hoc and strategic ODM suppliers

This was also touched upon in above sections. GN Netcom is already sharing information on demand forecasts by sending people to work at the ODMs factory. There is constant feedback if something is not produced according to GN Netcom’s standards.

Senior management is, however, not involved in solving problems. Director of GS has the full responsibility of the ODM outsourcing. He is supported by different department heads and has the responsibility of disseminating the idea of ODM outsourcing in the individual departments.

As stated earlier, Senior Director of GSCM thinks that ODMs are not chosen because of their supply chain capabilities. As for now ODMs manufacture the finished goods and GN Netcom
keeps that as inventory. Liker & Choi (2004) found out that the successful firms supervised and developed their suppliers in order to get the most out of the relationship. GN Netcom recognizes that the ODM suppliers lack supply chain infrastructure. Furthermore, Senior Director of GSCM does not believe that the ODMs’ supply chain capabilities can become a source of competitive advantage in GN Netcom’s business. He argues that: “We could invest some people and sometime in the start-up so they can get going but the types of ODMs We are working with are never going to get there so I’m not even going to bother”. This has resulted in GN Netcom having different requirements for different ODM suppliers, which can lead to different lead times, which in turn explain why GN Netcom keeps inventory buffers. He further elaborates:

“Our requirements to suppliers vary with what we expect their capabilities to be. For some of them we say you need to ship in 4 days, some we say 2 weeks, some we say 4 weeks, so for some of them we know where there capabilities are, we are not going to waste our time developing them, but we find other ways of sort of engaging them” (Senior Director of GSCM).

As the quote shows, there is no intention of developing ODM capabilities to improve efficiency in the supply chain. Although the general view is not to develop any supplier capabilities by sending in-house staff to train the supplier, GN Netcom can benefit from improving its strategic partners capabilities to run a smooth supply chain, as the cost of switching between suppliers is higher relative to switching between ad hoc suppliers.

**Step 4 – develop you suppliers capabilities**

- Building suppliers problem-solving skills
- Develop a common lexicon
- Home core supplier’s ability to innovate

**Relevant for ad hoc and strategic ODM suppliers**

GN Netcom does not want to develop the suppliers’ technological capabilities, as it would imply
that the suppliers can potentially use that knowledge to produce other products for GN Netcom’s competitors. This also means that building supplier problem-solving skills only happen when something goes wrong for the supplier and GN Netcom needs to save the project. However, this happens both for the strategic and ad hoc suppliers. It is only to a small degree, as the Director of GS explained:

“With ODM we don't go through their production process and stuff like that. Except for when supply chain come in we may tell them your through put lead is too long, we need to work together to find out where you can put in buffers in production”.

In addition to this, there is also quality staff present at all the ODMs GN Netcom outsources to, and they specifically work with problem solving. However, the general attitude towards helping the ODMs is negative.

Because GN has personnel in place at all the ODMs, they actually understand how the ODMs innovate as well as produce and manufacture the products. By having people at the ODM, they are also able to alleviate communication problems, such as not having a common language.

| Applies only to | Supplier’s ability to innovate is also seen as something the suppliers need to be able to develop themselves. Even the strategic suppliers GN Netcom refuses to assist in innovating. As VP of R&D states, by being present at the factory and in the production phase GN Netcom is actually able to produce the product themselves, because the staff has seen how to produce it when checking the quality. |
Step 5 – Information sharing

- Share information intensively but selectively
- Have specific times, place and agendas for meetings
- Used ridged formats for sharing information
- Insist on accurate data collection
- Share information in a structured manner

Relevant for ad hoc and strategic ODM suppliers

GN Netcom shares information very selectively and prefers to limit the direct contact with the suppliers as much as possible. The GN Netcom staff is present at the ODM production sites is there to check quality and to make sure everything runs as planned. They can step in and help, but GN Netcom prefers they do not.

As mentioned earlier, on occasions (such as biannual meetings) the GN Netcom staff takes time to discuss improvement areas with the ODM. Again the general attitude towards helping suppliers is negative. GN has taken an approach where they believe the ODM will have to improve their capabilities in order to get more business from GN. As VP of R&D states:

“The whole process should actually help the process (of developing new skills) if they invest in becoming more capable then we will also give them a different type of project to work with potentially with more money for him to”.

This again confirms that GN Netcom focuses more on making money than co-prosperity. However, Director of GS states that some information is shared electronically, as well as forecasts for the next year and a half is shared with all suppliers.
### Step 6 – Joint Improvement activities

- Exchange best practice with suppliers
- Initiate kaizen projects at supplier’s facilities
- Set up supplier study groups.

#### Relevant for ad hoc and strategic ODM suppliers

GN Netcom does not conduct any joint improvement activities with suppliers, as Director of GS states:

“We are not in the business for bringing anyone up to understanding our level of know-how. We pretty much expect the partners that we have to be at the right level at the time where we engage with them”.

This means that for GN Netcom it is a business transaction where both parties can make money and still protect its IP.

As seen from above, GN Netcom integrates with both strategic and ad hoc suppliers in terms of sharing common goals, production manuals and production systems. However, it is very clear that GN Netcom prefers not to integrate, but the company is doing so occasionally. GN integrates a slightly more with strategic suppliers than ad hoc, but there is not much of a difference.

As mentioned before, cost and volume are the significant drivers for GN Netcom in the ODM outsourcing. It is therefore interesting when GN Netcom has a cost focus that the company does not pursue deeper integration.

### 7.6. Supplier integration in knowledge intensive products

As seen from the analysis conducted on Liker & Choi’s (2004) framework, GN Netcom has no intention of integrating and therefore does not support its strategic supplier in developing new capabilities or share sensitive knowledge with them. As Liker & Choi (2004) states, when dealing
with a product built on complex and knowledge intensive technology, the company should integrate with its strategic supplier. In this section we will conduct an analysis on whether GN Netcom can benefit from integrating with its strategic supplier in joint NPD projects.

One of the things that negatively impacts the success of supplier integration into NPD activities is the “not invented here” mentality observed among engineers (Petersen et al. 2003). According to internal documents provided by GN Netcom, this is also evident in the organization, particularly among R&D staff. There is a resistance among GN Netcom’s engineers towards outsourcing and collaborating with the ODMs. When Senior Director of GSCM and Director of GS were asked about the resistance, Director of GS acknowledged that there were people against it and it is a huge challenge. Especially sourcing of solutions that are not indigenous to the organization is a difficult decision, as the policy today is that everything should be able to be done in-house. When VP of R&D was asked to the not invented here mind-set in his division he explained that it is a matter of trust, which primarily stems from failing attempts to work with ODM partners on a strategic level.

Certain initiatives have already been made within GN Netcom to make sure that people (R&D) get more comfortable with outsourcing to ODMs. This means that Director of GS has targeted especially R&D in order to make sure that they do not feel that they will their jobs. There have been two reasons for the development of hostile attitudes towards integrating with external suppliers. On one hand, R&D claims that ODM products are of inferior quality than if the NPD process was kept in-house. In addition, R&D staff fear that if development projects are outsourced to ODM suppliers, in-house R&D will have a less significant role, which in the end can lead to lay-offs in GN Netcom headquarter and Xiamen. However, VP of R&D primarily believes that the hostile attitude towards engaging with ODMs was not related to a “not invented here” mentality. Rather, it was due to setbacks and waste of resources they have experienced in the past. This is one of the areas where there was a clear disagreement among the three interviewees to why there is a hostile mind-set among in-house R&D staff. Both the Director of GS and Senior Director of GSCM believed that the root cause to this mind-set can be traced back to in-house engineers’ perception of the historical GN Great Nordic where all development activities were kept in-house. The opposition towards ODM outsourcing is being reinforced by their expectations concerning changes to the existing organizational structure if outsourcing to ODMs turns out to be a success. This is in sharp contrast to the explanation of setbacks and waste of resources made by VP of R&D. Nevertheless, Petersen
et al. (2003) emphasize the importance of due diligence and communication for establishing successful supplier integration.

Therefore, it is essential to communicate and create a common understanding of how the strategic supplier(s) can contribute and create value for the organization (Petersen et al., 2003). In GN Netcom’s case it is about improving innovation performance by freeing up resources which allows in-house engineers to specialize on development activities that in the future will make up the core of GN Netcom’s product portfolio and outsource standardized products in order to benefit from market opportunities. There are four key factors that need to be addressed to achieve successful supplier integration into NPD projects. These factors are: 1) customer knowledge and technology; 2) cost information sharing; 3) supplier involvement in decision-making; and 4) technological uncertainty.

7.6.1. Supplier knowledge
As discussed in previous section, GN Netcom already shares some knowledge through quality manuals and people on site. However, as the theory states, trust is equally important in building harmonious teams. According to Director of GS, GN Netcom spends a lot of energy on having people onsite, who talks to the supplier and build close relationships to partners. Prior to any signing of the contract, GN Netcom invests a lot of time in developing personal relations and gaining the trust of the supplier. According to Director of GS, this comes at a cost since the Asians do not hesitate signing a contract. This is usually a clear sign of that they do not read the contract thoroughly because they prefer building personal relations over signing the contract first. It is easy to get a signature but that does not mean that much to them. As Director of GS sees it, it is all about relationships: “everything is good when there is respect and friendship, but the day they get tired of you, you have no guaranties for their loyalty” therefore Director of GS cautious when it comes signing of contracts.

As stated earlier, when GN Netcom performs NPD in joint development projects with its strategic supplier there is a clear understanding around which responsibilities each party has in the NPD process. Based on an assessment on how the supplier can contribute in the NPD process, they are granted the responsibility of delivering solutions in certain areas.
According to VP of R&D GN Netcom will never work with a partner where GN Netcom has to develop the partner’s competences in areas where the partner does not have any knowledge in. As mentioned earlier, when forming joint development projects, GN Netcom’s approach is highly opportunistic in the sense that management to a large extent emphasizes the importance of not improving the strategic suppliers’ knowledge and competences in areas it has little or no capabilities. However, joint development is mainly performed in NPD projects in the Music and ANC categories in which GN Netcom has limited experience with. Therefore, GN Netcom can mutually benefit from exchanging knowledge and developing capabilities in areas where GN Netcom can improve according to Petersen et al. (2003).

When asked if joint NPD activities is a success and whether GN Netcom will focus more on joint development activities in the future Director of GS added that he believes that it is the way forward for GN Netcom. On the contrary VP of R&D is sceptical, as he believes it is still too early to say. He will rather wait and see the outcome of the other projects before making any new commitments. GN Netcom’s strategy of performing joint development activities in NPD projects with Fujikon is still in its infancy as the projects has only been running for a year and the project is not finished yet.

Petersen et al. (2003) state that increased knowledge about the supplier is more likely to result in greater information sharing. Based on the short duration of the relationship and previous experiences with ODM suppliers, it is not a surprise that the relationship is based on mistrust and opportunistic behaviour. GN Netcom complies with suggestions made by Petersen et al. (2003) to some extent by co-locating in-house engineers with external ones in order to build trust and develop the relationship. Since the relationship with the strategic partner is relatively new it is a natural reaction for in-house engineers to hesitate over including and accepting an external party to participate in the NPD process (Petersen et al., 2003). GN Netcom should pursue closer collaboration in joint NPD projects since findings in Petersen et al. (2003) suggest that increasing familiarity with the strategic partner can lead to knowledge sharing and improve the outcome of the NPD process.

7.6.2. Technology and cost information sharing

It was found that an increased level of technology sharing with the supplier results in higher levels of supplier involvement and improved results. Furthermore, increased technology information
sharing can lower costs and lead to creative solutions that can improve the buyer’s knowledge (Petersen et al. 2003). The best performing firms participating in joint NPD projects share technology and cost information such as technology roadmaps with the supplier. An open books system is also used as well as target prices in order to assess how well the project goes. So far the suppliers (both ad hoc and strategic suppliers) run with open books, meaning that GN Netcom can always see what is being purchased at what price. However, according to Senior Director of GSCM there are opportunity costs related to this, since the ODMs have many different customers and they start to become somewhat creative with the prices. These open book arrangements also means that GN Netcom knows how the ODM makes money and can thereby pressure them on price.

When asked whether GN Netcom shares roadmaps with the strategic supplier Director of GS explained, as earlier mentioned forecasts are shared, however, there are some limitations when it concerns sharing technical information about the product i.e. the technological design is not shared. Findings from Petersen et al. (2003) reveal that outcomes related to overall satisfaction and achievement of established goals were found to be associated significantly with information sharing in the buyer-supplier relationship. Besides informing the partner about the responsibilities it has in the development process, GN Netcom also shares information concerning expected sales number. However, the company does not share technological roadmaps or design elements. The main argument behind not sharing technology with the partner is due to the risk associated with outsourcing, as VP of R&D states:

"..you never have 100 % control over what an ODM does, and you can risk he takes the knowledge he has gotten through you and use for others".

Yet, it can be argued that GN Netcom’s decision of not sharing sensitive knowledge with its partner is affected by the short existence of the partnership and low degree of trust between the two. As the resistance towards collaborating with ODM partners on a strategic level is influenced by the fear of eroding in-house capabilities. Findings from Petersen et al. (2003) show that one of the high-tech companies in the study regularly shares its technology roadmaps with the supplier of one of its critical product systems, which is an industry standard and one that has enabled the company to be first to market with new product introductions. Consequently, GN Netcom can benefit from pursuing a similar buyer-supplier relationship in order to sustain its ability to introduce first to
market products in the Music headphone segment. GN Netcom’s ability to produce first to market innovations has been the firm’s key competitive advantage in the Mobile segment for the last 15 years.

7.6.3. Supplier involvement in decision-making

By having engineers from the supplier working at the buying company it was found that there was a positive effect on problem solving during design, ramp-up and full volume operations (Petersen et al. 2003). However, this was found to be one of the most problematic areas for supplier integration, as there often are cultural problems, and the engineers have different corporate backgrounds.

The physical co-location of a supplier engineer at the buying company is increasingly becoming a part of the normal NPD structure (Petersen et al, 2003). GN Netcom does not have engineers from the ODM supplier working in headquarter. Yet, the joint development projects that GN Netcom conducts include engineers from GN Netcom and the strategic ODM partner. Usually, both teams visit each other throughout the development phases in order to link the knowledge each team has produced. Petersen et al. (2003) suggest that the extent of supplier’s participation was the factor most strongly associated with the achievement of project goals. Supplier representatives do not have to be present at every NPD team meeting, but the suppliers participate in the decisions that are relevant to their involvement.

As mentioned earlier, when a joint development project starts GN Netcom defines what technology it can provide and then defines what is needed from an external partner. According to VP of R&D GN Netcom is responsible for the planning of the project where the ODM provides information on how it can contribute in the NPD process. From GN Netcom’s point of view this may be due to the lack of knowledge and trust in the supplier’s capability in NPD activities. However, this can have consequences for the outcome of the project, meaning that the strategic supplier may not allocate sufficient resources or send its most skilled engineering team.

7.6.4. Technological uncertainty

In a market with high technological uncertainty, companies are forced to reduce development times and maintain their level of innovativeness, and companies need to commit to new technology with
less information than before (Petersen et al., 2003). This means that companies have to take decisions in an environment based on technological uncertainty which stems from three sources: new to the world technology, there is a new application to old technology and technology outside company’s fields of expertise (Petersen et al., 2003). Since there is little development in BT, GN Netcom has within the last 10 years diverted its focus towards developing core competences in designing and developing new high quality products. Consequently, Fujikon was selected as the strategic partner in the Music segment because of its proven ability to manufacture and designing products.

Because GN Netcom wants to go from producing 100 products to 300, there is a need for innovating new products faster and maybe with less tested technology. Since the technological development in the BT technology has slowed the technological uncertainty factor from Petersen et al. (2003) has limited impact on the outcome for GN Netcom’s NPD results for many of the Jabra products.

7.7. Issues to be aware of
The thesis framework indicates that there is a need to manage the relationship when dealing with strategic suppliers, as well as to a certain extent ad hoc suppliers. In the following section the six issues presented in Feng & Lu (2012) and the issues mentioned in Arruñada & Vázquez (2006) will be analysed. The issue of ODMs as competitors and how to fight them will be discussed in the same section.

7.7.1 Be careful what you outsource
The first issue is related to outsourcing to ODMs. When outsourcing a more complex and knowledge intensive product there are, as previously explained, increasing complexity in the outsourcing process. As mentioned in the previous section, products that are highly standardized are better suited for outsourcing, because there is less risk of the company outsourcing core competences that in terms of GN Netcom is quality, acoustics and durability of the Jabra products. VP of R&D elaborates that:
“Our core competence is that we develop products. Most companies are IP related companies that develop a special algorithm that can be patented. But we are a product development company and have been that for a long time”.

In addition to this, Arruñada & Vázquez (2006) argue that tasks and processes that are essential for the core competencies, or that contain critical corporate assets, should not be outsourced at any cost. However, GN Netcom outsource products related to its core competence, i.e. BT. Nevertheless, that is of no concern to VP of R&D because the technology that GN Netcom places in their BT products are highly mature and stagnated. The technological development takes place further up the value chain at the chip manufacturer. Since there is only a low score of chip manufacturers GN Netcom often ends up by having the same technology available in its consumer products as the main competitors. Therefore it comes down to GN Netcom’s ability to make new algorithms that can be integrated with the chips, as well as develop competences in making a product that sounds and looks different.

7.7.2. Diluted product differentiation

One of the other things that need to be taken into account when outsourcing products is that you essentially can end up with similar products to your competitor. The structure of the ODM industry means that there are a number of big ODMs that have designed their own business model to sell products based on a standard design to a large score of buyers. Therefore, it is essential for the big ODMs to gain economies of scale by offering few products to as many buyers as possible.

According to Senior Director of GSCM GN Netcom is aware of similar products which contain standardized components that competing firms have equal access to when sourcing from one of the ODM suppliers. Generally speaking, an ODM offers products built around a standard design, which leads to a large degree of similarity in the products offered by GN Netcom and other competing firms. Senior Director of GSCM GN Netcom is well aware of the trade-off that exists when outsourcing to an ODM as:

“they (ODMs) need to be very competitive, size is everything” and ODMs are chosen “because of cost and capabilities and it is because they can do it quick because of standard design that they have and or cost efficient”.
As this quote indicates Senior Director of GSCM confirms that GN Netcom is aware of the likelihood of selling products containing similar features when outsourcing product designs to large ODM suppliers. However, GN Netcom uses marketing and focus on increasing quality by having quality staff at the ODM in order to differentiate the products from competitors. Director of GS has a different view on working with large ODMs, as he states:

“I’m a bit more critical towards the possibility of going out and work with these large players. In the projects where we typically have a smaller volume, higher quality and a wider variety, there is not always a lot that speaks for the larger players”.

As the quote indicates, Director of GS prefers suppliers that offer a wider range of products instead of depending on a supplier with a standard design. Director of GS elaborated that he finds the smaller ones more passionate about what they do, which make them prone to be more innovative. This can partially explain why GN Netcom thus far has experienced difficulties when working with the some of the bigger ODMs. Since the bigger ODMs offer a standardized solution with a low degree of customization, there is a mismatch between the supplier capabilities GN Netcom is looking for and what the big ODM suppliers offer. He therefore assesses that the smaller suppliers are more qualified to operate GN Netcom’s development projects. Director of GS further explains that Senior Director of GSCM is mainly concerned about his responsibility of running an efficient supply chain and to a lesser extent worried about the supplier’s capabilities to drive innovation and manage development tasks.

So for GN Netcom it is not only about the product, but also how the products are produced. By using a smaller supplier GN Netcom can avoid competing against similar products from the same supplier. However, there is a trade off in terms of supply chain capabilities.

7.7.3. Dependence on OEMs
Feng & Lu (2012) found that ODMs often become dependent on OEMs, especially if the OEM places large orders. Sudden drops in demand volumes from the OEM partner can have big consequences for a small ODM. Furthermore, many Taiwanese and South Korean ODMs are also in risk of losing business to the other Asian emerging markets, and therefore have to compete on
low-cost labour, which makes them vulnerable to decreasing profit margins as well as general price decreases.

GN Netcom primarily uses the bigger ODMs, where GN Netcom is dependent on the ODM and needs to order large volumes in order to get the best R&D team. As head of R&D states, many of these larger ODMs are “hungry” because of the threat from emerging Asian economies and therefore take a lot of customers in. Since GN Netcom is just a small customer, it cannot give the same volume drivers to the ODMs, as larger companies can, according to VP of R&D.

The situation with smaller suppliers is different. Here GN Netcom is one of the bigger customers and can therefore demand more. However, GN Netcom also always tries to negotiate on price and profit margins. Getting the smaller ODMs to lower prices contributes to the worsening of their situation. In return, the small suppliers are also highly dependent on GN Netcom and the business that comes with it.

7.7.4. Working conditions
One of the issues that also need to be taken into account in terms of dependence is that there is an increased pressure from the OEMs to lower prices. This means that the ODMs have two choices; either get a lower profit or lower the salary and thereby the working conditions for the employees. Labour conditions in emerging markets are characterized by long working hours, low wages and verbal abuse. Especially in China, several scandals such as with Foxconn and Apple have occurred (Blanchard, B, Huffington Post, 2012). Companies should protect themselves from such scandals, as these can greatly hamper a firm’s long-term brand value and reputation.

GN Great Nordic has created a list of how to deal with labour rights and working hours at the different ODM factories, in order to mitigate labour issues. One of the rules the factories need to comply with is that they are not allowed to use child labour i.e., hiring people under the age of 18. Further, pregnant women cannot be fired and the ODMs have to pay at least minimum wage to its employees. When GN Netcom starts a new partnership, the company makes it very clear that the partner needs to comply with these rules. GN Netcom has created a CSR report with rules that the ODMs need to comply with. The report is always sent out to the supplier in the beginning of the relationship.
7.7.5. Sustainability

Labor rights also relates to sustainability and in recent years there have been a trend in producing sustainable products. Feng & Lu (2012) found that OEMs can provide ODMs with guidelines for environmental products as well as push for carbon reduction. However, not all ODMs comply with the rules, even though they claim they do so.

In the previously mentioned CSR report, GN Netcom states environmental goals that the suppliers need to comply with. This is also done so that everything is clearly defined in terms of expectations and demands GN Netcom has. This is also done in order to hedge against a scandal. GN Netcom does not see this as a big issue, as all the ODMs GN Netcom sources from comply with GN Netcom’s CSR goals.

7.7.6. The ODMs as a competitors

One of the issues with bigger ODMs is that there is a chance that it can develop into a competitor by selling products under its own brand (Feng & Lu, 2012). These ODMs can often produce the same products as an OEM, but cheaper. During the 80’s and 90’s many ODMs started building capabilities in production and technology, and in the 00’s some of these ODMs began to sell under their own brand. Acer is an example of an ODM turning into an OEM in the PC industry (Feng & Lu, 2012).

GN Netcom does not fear that any of the ODMs they outsource to can reach the level where GN Netcom is today. As Director of GS states: “I think we have a hard time imaging that they should have more technological knowledge. I don’t see them as threat today. Today they are still at the bottom of the pyramid.” He further adds that they probably could become better someday, but it is not something that he fears right now. Senior Director of GSCM shares a similar view, he adds “You can find ODMs who have a product range that they are first movers on. We had, we still have an ODM that do speakerphones for example. They were very fast on that product range”. However, he still states that he does not regard them as a threat.

GN Netcom therefore has a view of the ODMs as being inferior technology producers. Nevertheless, VP of R&D states that GN Netcom is not a technology firm, but a production firm.
This means that one of the core competences is producing whole products, not just IP, as seen with some of the products such as the ANC headphones, GN Netcom needs the ODMs.

In fact, GN Netcom recently started working together with an ODM, where there was no competition among the products the ODM produced for GN Netcom and the products the ODM produced under its own brand name. However, because the product did not sell, GN Netcom decided to move the product to a more low-cost market and is therefore now in direct competition with the ODM. As a result, some of the ODMs GN Netcom works with have the potential to be competitors in the foreseeable future.

### 7.7.7. How to manage competition

According to Arruñana & Vázquez (2006) competition can be fought by deepening customer relationships, as this is an area the ODMs have not yet been very successful in. Furthermore, OEMs also have a better distribution network than the ODMs and should not compete on price but customer loyalty. Ultimately, customer loyalty is achieved based on superior specifications that set the OEMs product apart from the ODMs e.g. quality.

Arruñana & Vázquez (2006) further argues that OEMs can fight of ODM competition by improving customer relationship. GN Netcom has been very active in their marketing department in order to reach out to consumers and provide after sales services to raise brand loyalty among them. The Jabra brand is also among the top three quality brands in the Mobile segment, which will be very hard for new ODM brands to compete directly with. Furthermore, the ODMs cannot compete with GN Netcom’s distribution network, where most of its Jabra products are sold around the world.

GN Netcom has quality demands and it rarely deviates from them, as quality is very important for the company, and remains part of its competitive advantage. Some of the products that are produced at the ODMs lack the quality GN Netcom demands, and often there some kind of re-design is required, which will be further elaborated below.
7.7.8. Product quality

Within the electronics industry, OEMs experience a pressure to come up with new products and produce them at a faster rate (Feng & Lu, 2012). This often leads to more errors and re-calls of products. Product quality should be seen as both parties’ responsibility, in trying to get the best result (Feng & Lu, 2012).

The responsibility for the product’s quality is shared between GN Netcom and the ODM. When GN Netcom detects a quality defect it sends out a quality manual in order to improve the quality on certain parameters. It is still cheaper for the company to do quality control, detect problems and make the ODM redesign the product than doing the development and product internally. GN Netcom therefore shares the responsibility with the supplier. However, in the end it is GN Netcom’s responsibility that the product lives up to the quality standards.

As already mentioned, it is viewed as a problem in the organization that GN Netcom has to go in and help with improving the quality. A concern is that knowledge is transferred from the company to the ODM, and another is that GN Netcom prefers the ODM to be self-sufficient, since GN Netcom does not want to commit resources in helping the ODMs develop capabilities. Therefore, the quality problem is seen as one of the biggest reasons not to outsource to ODM suppliers.

By making the ODM supplier co-responsible for the quality GN Netcom can hedge against the worst quality errors. Due to a little customer base, smaller ODMs may be inclined to exert increasing effort to meet quality standards compared to bigger ODMs.

7.7.9. Give trustworthy partners their freedom

In a situation where there is a trustful strategic partner, it is important to give the partner the freedom to develop and produce a product (Arruñada & Vázquez, 2006). This means letting them take decisions without supervision as well as trust that the knowledge given to them by the OEM is used in the best possible way (Arruñada & Vázquez, 2006).

One of the problems is related to ensuring that the ODMs remain loyal to the OEM. Currently, GN Netcom’s relationship to its strategic ODM suppliers is still in its preliminary stage. Thus far GN Netcom has not been successful in dealing with ODM outsourcing and, as a consequence, the
organization still works on assessing supplier capabilities and their ability to perform well. Therefore, it is still too early in the process, which in turn makes it difficult for GN Netcom to assess whether the suppliers hold the right capabilities and whether they can be trusted. According to VP of R&D it is still too early to assess whether GN Netcom’s strategic partner is a reliable partner, due to the fact that the first project is yet to be completed. This comment supports the argument that GN Netcom’s ODM experience is still in its infancy, which makes it difficult if not impossible for the organization to talk about trustworthy partners.

So far GN Netcom believes that is has not experienced trust issues in terms copied products made by the ODMs, even though they exists a lot of replicated GN Netcom products in the market. However, it has not been possible to link ODM suppliers to the copies and Directors of GS believes that outsiders have made the copies by reverse engineering.

7.7.10. Look beyond the dangers of your own market

It is important that the OEM looks into possibilities of expanding its markets. An OEM that is blind to the world can very well lose out to aggressive and emerging ODMs. Therefore, OEMs should leverage its knowledge by entering new markets and avoid ending up being outcompeted by the ODM. It is therefore essential to have a strategy that allows OEMs to enter new markets outside their main market, still related to their core competences, where their brand may still have some influence and yet be acknowledged (Arruñada & Vázquez, 2006). Without ODMs, most OEMs would most likely not enter new markets directly. There are two issues that the OEM needs to be aware of: 1) the competition and risks of being in just one market can erode the competitiveness of the firm; and 2) at the same time the ODMs that are used to enter new markets is still a competitor.

To fight off the competition from ODMs in the same segment, the OEM can apply IP related knowledge to other segments than its core focus area. This was how GN Netcom entered the Music segment by adding its IP related algorithm in the Music headphones. GN Netcom assessed this approach was a cheap and easy way of assessing the profitability of new markets without making any upfront investment in equipment. The same approach was made when entering the in-car speakerphones category, where GN Netcom was unsure of the demand, but still wanted to move into other product categories.
8. Summary of the analysis

As seen from the analysis, GN Netcom is yet to make a decision as to whether it outsources for cost or knowledge reasons, since its current outsourcing activities involve both cost and knowledge considerations. The interviewees have contrasting perspectives of the ODMs’ skills and there is a strong mismatch between how VP R&D, Senior Director of GSCM and Director of GS perceive the ODMs.

Second, there exists no systemized plan for what is being outsourced except that 80% of the development projects are kept in-house and the remaining 20% can be outsourced to ODMs. VP of R&D stated that he preferred the GN Netcom-owned Xiamen department in China to be the recipient of the more knowledge intensive products, so the core competences are kept in-house. However, the Xiamen department is very good at producing the low-complex products at a low price, much lower than an ODM, meaning that once again there exists a division between knowledge and cost. Producing low-complexity products in Xiamen means that more knowledge intensive products are outsourced, increasing the probability of over-outsourcing. Furthermore, GN Netcom does not want to redeploy knowledge created by the ODMs, as the general belief is that the capabilities to produce similar products are present internally. In addition, pains and gains related to outsourcing of R&D activities were detected in GN Netcom. In relation to this findings from the analysis reveal that in particular managerial time is crucial for outsourcing development activities to ODMs, regardless of the complexity of the outsourced product.

8.1. Ad hoc suppliers

GN Netcom has a strategy of outsourcing standardized low-complexity products to strategic as well as ad hoc suppliers. Placing low-complexity products with ad hoc suppliers is to a certain extent in line with the thesis framework. GN Netcom has a tendency to stick with ad hoc suppliers for too long, even when there are opportunities to switch to other suppliers in the market. This means that the company might miss out on market opportunities. Findings from the analysis reveal that GN Netcom rarely manages the relations with ad hoc suppliers through arm’s length transaction which is why the circle partially covers the “arm’s length” box in figure 13. The figure illustrates how GN Netcom manages outsourcing of low complexity (standardized) products. The company uses ad hoc as well as strategic suppliers to produce the low-complexity products:
GN Netcom outsources high-complexity products to one of its strategic partner and will start outsourcing low-complexity products in the BT categories to the new strategic supplier. It makes sense to outsource to a strategic partner in this high-complexity category, as GN Netcom has limited knowledge about certain products, whereas, the low-complexity is supposed to be outsourced to one partner in order to increase bargaining power thereby getting the best engineers (A-team). GN Netcom engages in limited integration with the strategic supplier when outsourcing these types of products. The main purpose of the partnership is to lower costs related to developing new product segments, by utilizing certain capabilities the strategic partner has. As a consequence, management of the relationship with the strategic partner never reaches full integration. The knowledge-intensive products are placed with the strategic supplier. However, instead of pursuing complete integration, GN Netcom manages the relation in between full integration and arm’s length (closer to arm’s length transactions). The outsourcing process is illustrated below. There is a dashed ring about standardized products, as the outsourcing of these to a strategic supplier will first start ultimo 2013.
We found that many of the issues mentioned in Feng & Lu (2012) and Arruñada & Vázquez (2006) apply to those experienced by GN Netcom. The issues related to similar products and the risk of ODMs start competing with GN Netcom, is a trade-off the company is willing to accept. The organization has a hard time imagining any of its ODM suppliers becoming a serious threat to its business. This is mainly because GN Netcom believes that ODMs lack technological expertise and knowhow. One of the issues presented by Feng & Lu (2012), that of dependence, deviates from what is found in the analysis. GN Netcom has to provide the bigger ODMs with a sufficient production volume in order to receive the best engineers. If GN Netcom cannot, the ODM demotes them to the position of a less important customer and GN Netcom receives the C-team. The ODM is therefore not dependent on GN Netcom; rather GN Netcom has to provide a certain amount of volume in order to work with the best development teams.

The ‘not invented here’ mentality has so far complicated accepting ODM suppliers among in-house engineers. This has taken its toll on previous efforts to make ODM outsourcing work. The ‘not invented here’ syndrome has a negative impact on the outcome of the NPD in joint activities.
9. Best Practice for ODM

The analysis was conducted by using the thesis framework. Findings from GN Netcom revealed a gap in our thesis framework and how the firm approaches outsourcing to ODM. In this context, not all possible variables and factors affecting the unit of analysis were taken into account, which can explain the gap between our findings and the extensive literature on ODM outsourcing, NPD and R&D outsourcing.

Rundquist & Halila (2010) found that the best performing firms’ decision to outsource NPD was to gain access to new knowledge, while the remaining firms mainly sourced for cost reasons. The analysis revealed that outsourcing of NPD takes place for both reasons. In relative terms, the cost factor outweighed the knowledge factor in GN Netcom. Outsourcing of NPD was not carried out as a mean to acquire new knowledge. However, exceptions were made when strategic technologies were not available in-house (such as the ANC technology). In addition, Rundquist & Halila (2010) does not include the intercept variable of the knowledge and cost variable’s joint impact on the decision to outsource NPD. This creates a gap between our thesis framework and our findings. Furthermore, the impact of organizational resistance on the factors influencing the decisions to outsource was not included in the paper. The ‘not invented here’ syndrome has a significant influence on the decision to outsource development activities for the case company. Another limitation of Rundquist & Halila (2010) is their specific focus on Swedish medium sized manufacturing firms, which means that their findings may not apply to firms in different geographical contexts and industries.

The second step in the framework focuses on how much R&D can be outsourced and the pains and gains related to it. The amount of R&D outsourced in the case company stopped at a fixed ratio. With reference to Grimpe & Kaiser (2010) the amount of R&D that can be outsourced is highly firm specific, which means the individual firm must assess to what extent R&D can be outsourced before the adverse effects materialize. Furthermore, findings from the case analysis show that very limited knowledge is redeployed back in the knowledge base of the firm when outsourcing R&D activities to ODMs. When product complexity increases, findings from the analysis show that the level of collaboration and dependency on ODM knowledge increases. The case company compensated lack of internal knowledge by either acquiring off-shelf solutions or collaborating with an ODM partner. However, the amount of knowledge redeployed is still limited due to the fact
that competitors have equal access to the ODMs’ knowledge. Relying strongly on highly generic external knowledge, which the competitors have equally access to can dilute firm specific resources in the long run.

Bensauo (1999) and Arruñada & Vázquez (2006) argue that highly generic products should be outsourced to ad hoc suppliers in order to exploit market conditions, while knowledge intensive products call for closer collaboration with a strategic partner. The thesis framework illustrates the two outsourcing modes in both extreme cases. Yet, the case company never manages the relationship through arm’s length relations nor does the firm fully integrate with the partner. However, a mixture of the two relationships are established, which is mainly driven by the cost factor, as well as access to capabilities and knowledge not available internally. In this sense, the case company sourced the in-car speakerphones technology from an ad hoc supplier and placed low-complexity products with a strategic supplier due to cost incentives.

More complex products call for increased integration (Liker & Choi, 2004, Petersen et al. 2003). However, we found that the theory is not congruent with the findings from the case company. From a theoretical perspective, both Liker & Choi (2004) and Petersen et al. (2003) do not take into account the consequences of sharing information when integrating with a strategic ODM supplier. Since the ODMs sell to multiple customers, sharing sensitive information constitutes a huge risk for GN Netcom, as potential competitors can benefit from it. It therefore does not make sense to pursue full integration with the strategic supplier in NPD activities.

Regarding the issues mentioned in Feng & Lu (2010) and Arruñada & Vázquez (2006), we found that the case was consistent with the issues, expect for one. Contrary to the findings of Feng & Lu (2010), the analysis revealed GN Netcom is dependent on the established ODMs that primarily dominate the industry. This we believe also is evident with other smaller firms. As the case was consistent with the theory, we believe that these issues are applicable to other companies in the electronics industry that are outsourcing to ODMs.

9.1. Generalizability and adjustments to the model

The case analysis revealed gaps between the thesis framework and what we witnessed in practice. This is most likely due to the fact that the included literature is not based on a specific industry or
company type, and due to the small sample size on which the framework has been tested upon. The implications of the findings are therefore limited to the case company. In order to increase generalizability, the best practice should be benchmarked and tested through further comparative ODM case studies to assess if other companies go through the same process when outsourcing to ODMs. This should also be done in order to assess what findings are firm specific and which are generalizable. However, we propose findings that are valid to take into consideration when outsourcing to ODMs in the electronics industry (these will stated below in this section).

Due to shorter product life-cycles, diminishing innovation efficiency and fast changing consumer preferences, we believe that value created from innovation in the electronics industry is no longer restricted to the OEM, but to an increasing extent also includes suppliers in the value chain. By outsourcing to ODMs, firms can enter new product segments and launch products faster without making any significant capital investments in new assets. We therefore believe ODM outsourcing is an appealing solution for many firms in the electronics industry, and our findings are therefore relevant for firms in this industry.

Furthermore, as Frost and Sullivan (2012) state, the future of the electronics industry will be characterized by the increased importance of ODMs. This is due to the fact that OEMs now face increased competition and therefore need to optimize their outsourcing process. They also need to diversify their portfolio of products in order to compete in new markets. In this sense, ODM will play a vital role in the electronics value chain. In relation to this, our best practice highlights important topics that need to be taken into consideration when outsourcing to ODMs.

We further believe that by adjusting the model with our findings, firms considering outsourcing to ODMs in the electronic industry can benefit from using the model in order to optimize their ODM outsourcing. Our research contributes with implications that are essential to take into consideration when outsourcing NPD activities to ODM suppliers since it draws on findings from other BPs and literature relevant for our BP. Based on the findings from the analysis, the following adjustments needs to be added to the model:
9.1.1. Cost vs. Knowledge

- We do not believe that there is a need for adjustments to Rundquist & Halila (2010), as the case did not reveal whether GN Netcom would become more successful if outsourcing for access to knowledge. However, what we could detect was that it is not an either or in terms of outsourcing for cost or for knowledge. Outsourcing for both can be done simultaneously. We believe this is not only idiosyncratic to the case company, but also generalizable in that companies do not always make a distinct choice between outsourcing for cost and outsourcing for knowledge.

9.1.2. Pains vs. gains of outsourcing

- We found that Grimpe & Kaiser (2010) do not take the amount of R&D outsourced into account, i.e. the amount of R&D outsourcing with a standardized technology is low compared to more complex products. Based on the case, we believe that there is not a need for full integration for standardized products outsourced to ODMs.

- Grimpe & Kaiser (2010) do not take into account the amount of R&D outsourced, or if it takes longer time to manage more complex products than standardized ones. In addition to their findings, it was found that management time is crucial for outsourcing development activities to ODM regardless of the degree of outsourcing.

- It was also found that having a plan for how to internalize the acquired knowledge is not always relevant and especially not in cases that involve the outsourcing of standardized products to ODMs.

9.1.3. Standardized products vs. knowledge intensive products

- It was found that it is not always possible to exploit market opportunities by using ad hoc suppliers for low complex standardized products. Standardized products can also be outsourced to a strategic supplier to achieve lower costs.
• It was found that when outsourcing complex knowledge intensive products to ODM, the OEM should not necessarily pursue full integration. Seeing as the ODMs have been in the business for a long time, they can have superior knowledge (like in the case with ANC headphones). The ODM can manufacture complex products without much interaction with the OEM, as the ODM can handle everything from design, technology to production (however, quality might vary!).

• It was also found that knowledge intensive complex products (such as the in-car speakerphones) can be outsourced to ad hoc as well as strategic suppliers.

9.1.4. Integration

• It was found that the two types of relations, arm’s length and full integration, are not sufficient to assess how the relations are managed. Therefore, a new type of relation situated between both extremes is needed.

• We found that there are different degrees of integration when dealing with ODM suppliers. GN Netcom performs limited integration in order to benefit from the supplier capabilities in different fields.

• The extent of integration varies depending on whether NPD activities are performed in joint development projects or placed at an ODM supplier.

• The case analysis revealed that strategic partnership was preferred in order to getting the right people (A-team) not to get access to knowledge.

• The OEM-ODM relationship is highly opportunity driven, which relates back to the issue of the ODM serving multiple customers and potentially the OEMs’ competitors.
9.1.5. Issues specific to the ODM industry

It was found that many of the issues highlighted in Arruñada & Vázquez (2006) and Feng & Lu (2010) were also experienced by the case company. However, one issue deviates from theory and that is that of dependence.

- We found that ODM is not always dependent on the OEM in the sense that is vulnerable to cuts in volumes from all its customers. The ODMs in this case prefers larger customers who can place large volumes orders.

9.2. Best practice and the adjusted model

The best practice is adjusted so that it takes above mentioned adjustments into account. Furthermore, a model based on the thesis framework has been created in order to illustrate the best practice.

In order to use the model, one follows the arrows, first deciding if it is for cost, knowledge or a combination of both the company outsource to ODMs for. Then pains and gains (Grimpe & Kaiser, 2010) should be taken into account no matter if it is a standardized low-complexity product or if it is a high-complexity product. If outsourcing a standardized low-complexity product, there are certain options to choose from depending on the types of standardized products (off the shelf, one off products or large volumes), and the same goes for outsourcing high-complexity product.

The issues related to ODM outsourcing are the same as in the thesis framework of the thesis. However, a new box, restricted integration, has been added based on the findings from the analysis. In restricted integration, the OEM and ODM integrate by sharing documents, have meetings, share supply chain information e.g. postponement, but the OEM does not help the ODM by develop any skills.
Cost vs. Knowledge

The best practice model shows that the key drivers to ODM outsourcing can be cost or knowledge. When outsourcing NPD for knowledge reasons the key factor behind this decision is that the firm lack knowledge, resources or both to develop the product internally. When outsourcing for cost reasons the buying company primarily pursue economies of scale and efficiency through an external supplier. Yet, firms can outsource to ODM for both reasons.

Pains and gains

Related to the decisions to outsource for either cost or knowledge firms need to balance the pains against the gains related to outsourcing of development activities. The extent to which additional R&D outsourcing benefits firms’ innovation performance is highly firm-specific and over outsourcing is a threat to the innovation performance. When outsourcing low-complexity products

Figure 15. Illustrates the best practice to ODM outsourcing
for cost reasons the amount of R&D that is outsourced is limited. However, relying exclusively on the ODMs ability to develop and produce products can lead to loss of know-how and capabilities in producing the product in-house. In this sense, the pains related to cost efficiencies can outweigh the gains in the long run. Therefore, firms that outsource for cost reasons should still invest in R&D capabilities in order to stay competitive. When outsourcing R&D tasks to compensate for the lack of internal competences the buying firm needs to have a plan for how it can capitalize on the external knowledge.

Outsourcing of R&D tasks calls for increased managerial attention regardless whether outsourcing to ODM is for knowledge or cost reasons. Furthermore, when outsourcing for knowledge reasons the buying firm has to be aware of pains related to IP disputes in joint development projects. When outsourcing R&D tasks for knowledge reasons the probability of over-outsourcing increases. As a consequence the gains related to acquiring external knowledge can outweigh the gains, which in the end can dilute the buying firms innovation capabilities.

### Issues related to the ODM industry exists regardless the complexity of the product

Firms outsourcing to ODMs has to be aware of the issues specific to the ODM industry:

- Competing firms have equal access to products sourced from ODMs. This can lead to high similarity in products offered by competing firms. Marketing and quality superiority should be in place in order to distinguishing products from competitors.

- The ODM can become dependent on the OEMs placing high volume orders. However, OEMs also become dependent on ODMs. OEMs should focus on finding ODMs there are dependent on their volumes.

- The ODMs can introduce their own brands and start competing with the OEMs. However, again by having a strong brand and distribution network established OEMs can fight off the competition.

- The OEMs should also focus on using their own brand name to enter new product segments
through ODMs in order to fight off the threat of being outcompeted by ODMs in their own markets.

- Quality flaws can arise due to expectations of producing new products faster and cheaper. This can mean that OEMs have to allocate resources to improve quality defects.

- Be aware of what is outsourced. Tasks and processes that are essential for the core competencies should not be outsourced.

- Labour rights and sustainability should be taken into account in order to avoid scandals. Therefore, companies should formulate a code of conduct the ODM needs to comply with.

<table>
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<tr>
<th>Low-complexity products</th>
<th>High-complexity products</th>
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<tr>
<td>The OEMs can outsource low-complexity products to ad hoc or strategic suppliers. The buyer-supplier relationship to ad hoc suppliers can be managed through arm’s length transactions or restricted integration. If the OEM is looking for off the shelf solutions, arm’s length transactions are advised. If high volume production is pursued through ad hoc suppliers the relationship usually drifts towards restricted integration where the OEM shares limited information with the supplier. If the OEM firm sources low-complexity products from a single strategic supplier it can become dependent on the ODM. The buyer-supplier relationship is managed through</td>
<td>High-complexity products can be outsourced to ad hoc and strategic suppliers. When high-complexity products are outsourced to ad hoc suppliers the OEM often does not have any previous experience in selling these. As a consequence, a small quantity is bought as an off-the-shelf solution to assess how the product will sell in the market under the OEM’s brand name. The buyer-supplier relationship of off-the-shelf products should be managed through arm’s length transactions. Yet, the OEM can also place high volume production of these products with ad hoc suppliers and manage the relationship through restricted integration. High-complexity products can also be</td>
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restricted integration and will never lead to full integration.

outsourced to a strategic supplier. Outsourcing of products in this category calls for closer collaboration if the purpose of the partnership is to benefit from certain capabilities the firm lacks of its own. In relation to this, joint development activities are the preferred way to collaborate between the buyer and supplier and high volume.

The buyer and supplier can pursue full integration in order to reduce cost when the technology at hand is pre-paradigmatic and fast changing. However, rarely does the buyer-supplier relationship end up in full integration in the ODM industry.

**Table 7.** shows the found best practice to ODM outsourcing in the electronics industry.

10. Managerial recommendations for GN Netcom

The recommendations in this section are based on the findings from the analysis. By stating these recommendations, we acknowledge some of the recommendations might prove difficult to follow in practice.

- GN Netcom should create a common understanding of the reasons behind outsourcing, whereby outsourcing to ODM also can be done to acquire new knowledge. The common understanding should also include the skills and capabilities the ODMs possess, and how these can be used across GN Netcom departments.

- GN Netcom should also create a common understanding on to what extent R&D can be outsourced. As of now it seems that some within the company would prefer more outsourcing and some would prefer less, as well as GN Netcom should also decide on how much R&D can be outsourced and what segments can be outsourced.
• GN Netcom should be aware of the risk associated to becoming dependent on the ODMs ability to innovate products. Due to changing consumer preferences in the consumer segment GN Netcom has to an increasing extent entered new segments through ODMs.

• GN Netcom should strive to improve the relationship between in-house engineers/stakeholders and external development teams in order to build trust and acknowledgement between both parties.

• In order to face competition and keep being innovative, GN Netcom could benefit from redeployment of the knowledge (IP and blueprints) the ODMs produce. By redeploying knowledge, the company ensures that the innovative performance is not eroded in the long run. This is especially important in product segments where GN Netcom has no prior knowledge. It will also make it easier for the GN Netcom if it chooses to produce the same types of products the ODM has.

• Pressing strategic partners on cost is natural. However, when engaging in a partnership pressing for cost savings should not be the dominating factor for engaging in the relationship. Partners that perform well should be rewarded in terms of awarding it with more products, among other things.

• GN Netcom could benefit from working with small suppliers, because GN would be among the biggest customers buying from small suppliers. Thereby, will the ODM will become dependent on GN Netcom’s demand for production and GN Netcom could avoid receiving C-teams. Pressing small suppliers on price could be counterproductive, as small suppliers are facing competition from new ODMs, which could potentially worsen their financial situation.

• By using the same two ODMs across different product segments, GN Netcom has an increased risk of not getting their product on time or the right quality. Furthermore, if one of them were to go out of business GN Netcom would have a problem. It is therefore recommended that the product segments are spread out among several suppliers.
• In relation to above by placing many low-complexity products at the second strategic supplier GN Netcom can miss out on market arrangements such as low switching cost and increased competition that leads to lower cost. GN Netcom could therefore benefit in terms of costs from exploiting the market.

• GN Netcom could benefit from not using standardized contracts when outsourcing to ODMs i.e. ad hoc suppliers, where the relations are not on-going. By specifying exactly what is needed from the ODM, GN Netcom can reduce management time. However, GN Netcom has to have extensive knowledge about the outsourced products in order to draft complete contracts, which can minimize the direct transaction between the OEM and ODM when products are highly standardized.

• In order to prevent GN Netcom receiving the C-team, GN Netcom could use smaller (ad hoc) suppliers. GN Netcom could also pressure the strategic ODM with the threat of moving production to an ad hoc supplier, as there are many other in the market. Another way to avoid the C-team is by integrating and investing in each other.

• It is also recommended that GN Netcom pursues (restricted) integration. By increasing familiarity with the ODM both parties can mutually benefit from working closely together. Increased knowledge and trust between both parties can lead to increased information sharing and inclusion of the supplier which in the end can lead to better and more innovative products, as well as reduced costs. Thereby, GN Netcom can sustain its ability to introduce first to market products in the Music and ANC headphone segment. We suggest that the integration is pursued with a smaller supplier, which has higher opportunity costs in losing GN Netcom as a customer.

• GN Netcom should take the ODM competition seriously, as both industry reports (Dingens, 2012) as well as their own experience confirm that ODMs can become competitors. This also means that some ODMs could have valuable information worthy of getting access to.
11. Conclusion

This thesis set out to investigate outsourcing of NPD activities to ODMs in the electronics industry. The aim of the thesis has been to provide an answer to two research questions “how GN Netcom can optimize its outsourcing of Jabra products to Original Design Manufacturers” and “What could constitute a best practice for Original Design Manufacturer outsourcing in the electronics industry?”

Answering the primary research question, GN Netcom can optimize its outsourcing of Jabra products to ODMs by following the best practice model (figure 15 and table 7) in combination with the recommendations. GN Netcom can use the best practice to make a decision on when to outsource which product, in addition to managing issues related to ODM outsourcing.

Furthermore, GN Netcom needs to find a common understanding among the internal stakeholders involved in the outsourcing process about what skills the ODMs possess. In doing so, GN Netcom can legitimize the decision to outsource for knowledge reasons. There is also a need to communicate to the internal stakeholders on how the organization can benefit from ODMs, thereby also addressing the “not invented here” mentality.

GN Netcom should create a strategy of what should be outsourced to ODMs in terms of which product segments and stay with it in order to optimize outsourcing to ODM. This strategy could be based on the best practice (figure 15 and table 7). As of now there is some confusion surrounding which types (low-complexity and high-complexity) of products should be produced in the GN Netcom’s facility in Xiamen and which should be outsourced to an ODM. GN Netcom should also take into consideration the pains and gains related to outsourcing. By creating a strategy to what extent R&D activities can be outsourced GN Netcom can reduce management time spent on issues related to ODM outsourcing.

Furthermore, by increasing spending on internal resource creation GN Netcom can improve the innovation performance at even lower levels of R&D outsourcing. By integrating acquired knowledge with the firm’s knowledge base, GN Netcom can benefit from external knowledge even at low levels of commitment with their external suppliers. At the same time GN Netcom should complement R&D outsourcing with a strategy that enables the firm to redeploy external knowledge
into the firm’s own knowledge base. In return, this could improve the effectiveness of R&D outsourcing in that more opportunities for firm-specific resource deployment arise.

GN Netcom could also optimize outsourcing by understanding what ad hoc and strategic suppliers can contribute with. By switching between ad hoc suppliers the company would be able to exploit the market. Furthermore, by sharing information (restricted integration) with e.g. a strategic supplier GN Netcom could potentially reduce costs, new product development time and time-to-market. Again there is need for a common understanding of what is integrated and what is not. As of now GN Netcom states that it does not believe in integration, but the analysis shows that it does integrate to a certain degree. By creating a strategy for what can and what cannot be shared in terms of information with the ODMs, GN Netcom can optimise its ODM outsourcing.

Industry reports, articles, as well as GN Netcom’s own experience show that ODMs can become competitors to the established OEMs. GN Netcom could therefore benefit from continuously assessing the development of the ODM electronics industry. Furthermore, in order to avoid receiving the C-team, GN Netcom could expand its work with smaller suppliers who are willing to give them the best engineers. However, there is of course a trade-off in terms of supply chain capabilities.

Answering the secondary research question of “what could constitute a best practice for Original Design Manufacturer outsourcing in the electronics industry?” the model (figure 15) and table 7 serve as an answer. We believe, by incorporating the adjustments derived from the case the model contributes with important considerations when conducting ODM outsourcing in the electronics industry.
12. Future research

We suggest that future research should direct attention toward ODMs in the electronics industry. The literature and our case analysis confirmed that ODMs can compete against OEMs by establishing their own brand. What effects will that have on the OEMs business model and how should the threat from ODMs be handled? The research can draw on the work of M. Jacobides, T. Knudsen and M. Augier (2006), or Cooke, P., Uranga, M. G., & Etxebarring, G. (1998) about their theory on regional systems of innovation.

Future research can also focus on what factors that impact the outsourcing decision of NPD. The number of studies dealing with this topic is limited (Feng & Lu, 2010, Hilmola et al. 2004, Rundquist & Halila, 2010). Therefore, future studies can build on Rundquist & Halila (2010) by testing for firm size across different industries and geographical locations.

Future research could also examine if the OEMs’ core competences will be eroded in the long-run when outsourcing to ODMs. Do the OEMs lose knowledge and what are the implications of not redeploying knowledge into the organisation? This could be based on works of Grimpe & Kaiser (2010), as well as resource based theory (J. Barney, 1991)
13. Reference list


**Reports**

Frost and Sullivan (2012). Analyzing the evolving roles and growth opportunities for EMS Providers and ODMs. Published May 7, 2012. [http://www.frost.com/sublib/display-report.do?searchQuery=ODM-outsourcing&ctxixpLink=FcmCtxt1&ctxixpLabel=FcmCtxt2&id=4131-01-00-00-00&bdata=aHR0cDovL3d3dy5mcm9zdC5jd20vc3JjaC9iYXRhbi9nlXNlYXJjaC5kbz9xdWVyeVRleHQ9T0RNK291dHNvXJaW5nQH5AU2VhcmNoIFJlc3VsdHNAfkAxMzgwOTYzNzQ4MTA4](http://www.frost.com/sublib/display-report.do?searchQuery=ODM-outsourcing&ctxixpLink=FcmCtxt1&ctxixpLabel=FcmCtxt2&id=4131-01-00-00-00&bdata=aHR0cDovL3d3dy5mcm9zdC5jd20vc3JjaC9iYXRhbi9nlXNlYXJjaC5kbz9xdWVyeVRleHQ9T0RNK291dHNvXJaW5nQH5AU2VhcmNoIFJlc3VsdHNAfkAxMzgwOTYzNzQ4MTA4)


**News article**

Websites


http://www.nationalbanken.dk/dndk/valuta.nsf/side/valutakurser!opendocument
Accessed August 9th 2013
14. Appendices
GN Great Nordic Group Structure

In its present form GN Great Nordic consists of the hands-free headset division GN Netcom and the hearing aid producer GN Resound. The former is acknowledged as the world leader in hands free communications solutions and the latter offers world-class hearing instruments and diagnostic equipment. In addition, GN Resound and GN Netcom consist of four business units. These business units are marketed under four brands and will be presented next.

**GN Store Nord Group Structure**

![GN Store Nord Group Structure Diagram]

- **GN Resound Group:** GN’s two hearing instruments brands, GN Resound and Beltone, produce hearing aid equipment that covers most segments and price categories in the hearing instrument market. The Resound Group delivers approximately 55% of company revenue.

- **GN Otometrics:** GN Otometrics produce, manufacture and sell computer based audiological and vestibular measurement instruments. It is the world’s leading manufacturer of hearing and balance instrumentation and software. GN Otometrics generates approximately 8% of company revenue.

- **GN Netcom – CC&O:** GN Netcom is recognized as the world leader in corded and hands free audio communication solutions to the Contact Centre & Office segment (CC&O). The CC&O division develops, manufacturer and market headsets for office and call centers under the Jabra brand owned by GN Netcom. GN Netcom markets all its products under the Jabra brand. The CC&O segment is the cash cow for GN Store Nord and generates close to 24% of revenue. It has a long and successfull trajectory of innovative wireless audio solutions for the office and call center market. The CC&O business is mainly serves business-to-business segment.

- **GN Netcom – Mobile:** In the Mobile business Jabra offers corded and wireless communication products for the mobile consumer segment. Jabra Mobile is recognized for its mono and stereo BT headsets as well as in-car speakerphones. Mobile contributes with approximately 13% of revenue. The Mobile business primarily targets the consumer market.
Interview with Director of Global Sourcing and Senior Director of Global Supply Chain Management, 5th June 2013

Interviewer: Kan i fortælle lidt om jeres funktion og rolle i Jabra?

Director of GS: Ja, Skal jeg starte?

Director of SC: Gør du det.

Director of GS: Jamen øh… min funktion er jeg sidder og i princippet kommercielle ansvar for alle produkter som er i det vi kalder for new product… hvad kalder vi det …? New product development altså dvs. alle aktiviteter der ligger forude for at vi præsenterer en business case. Og få samlet de rigtige priser og kreere det oplæg der bliver lagt frem for vores ledelse med henblik på at træffe beslutninger om vi skal starte nye projekter. Derudover er jeg også ansvarlig for vores make/buy processer dvs. Finde ud af hvor meget vi skal lave internt og hvor meget skal vi bruge eksterne partnere til at udvikle for os. Øh det er sådan en proces hvor blandt andet Director of SC er med og hvor flere andre er med til at vi vurderer ud for hvad vi har af tilgængelige leverandører øh og kompleksitet på projekter hvor vi så finder ud af om det giver mening at lave det eksternt eller om vi skal lave det internt. Nogle gange kan det godt blive styret… eller det styres oftest rigtig meget af om vi har ressourcerne tilgængelige internt til at gøre det eller ej. Øh derudover har jeg så været ansvarlig for det her Gazelle projekt det sidste års tid øhm… som i princippet har handlet om og blive bedre til at køre ODM projekter og få skabt den rigtige struktur omkring det. Og det er noget vi stadigvæk arbejder på. Og oven i det sidder jeg så også er i gang med at opbygge en funktion hvor vi er i gang med at ansætte nogle ”senior cost specialistser” ind til at hjælpe os med at bliver bedre til og… blive mere skarpe på de priser som vi præsenterer til business cases.

Director of SC: Kan jeg tage det på svensk eller skal jeg tage det på engelsk?

Interviewer: Måske er det nemmere på engelsk (latter)

Director of SC: So I am responsible for supply chain operations. Essentially means that we have the same boss. And where as Director of GS is commercial responsible for the new product introduction I then have all of the operations responsibility. That is end-to-end from incoming of components, manufacturing and then the logistics part and fulfilment.

Interviewer: ok

Director of SC: So that’s why (uklart hvad han siger 02:13)

Interviewer: Kan I fortæller os hvad for en slags virksomhed Jabra er? Hvad I primært laver?

Director of SC: Eh I mean… it is a telecom… I would say we are in the telecom industry. Then we have two fundamentally… and now you can add later. But we are two fundamentally eh eh business divisions you can call it. One is consumer oriented. Here we have our standard mono Bluetooth headset that works with your mobile phones and even with your laptop. As well as from ehm end of last year we also went into the music category. All of this is sort within the consumer products you will find that in the media market, TDC or whatever. The other part is more B2B, business to business and this is essentially the legacy of the company is the sort of headset that are used professionally by call centres and offices. This is also… So there is a lot of legacy in the call centre world. You know where you have the big investment banks or this kind of environment. As well as… eh what we see now is when companies overall are changing their communication from their standard phone systems to Internet powered devices. The the…. You essentially use your computer for communication whereby you will need the headsets. That is sort of eh eh… driving currently the growth of that industry.
Director of GS: That is correct.

Interviewer: Hvem er jeres konkurrenter?

3:52 Director of GS: I think globally… I Think we say we pretty much share the majority of the market together with an American competitor called Plantronics. I think we approximately have 30% overall market share each and the remaining 40% is then split among a number of other companies but where Plantronics and GN are the two major players in the Market.

Director of SC: Generally true and particularly on the professional side. On the consumer side we have more… Competitors such as the music industry we just are heading in to… You have Bose, you have Beats, I mean Monster Beats by Dr. Dre, Sony, Phillips, all of these kind of… There is a huge amount of competitors. The further you get towards consumer-based products, the more competitors there are. On the flip side, the further you get towards professional products at the end of the day it is basically Us and Plantronics.

Interviewer: What is it Jabra can that the competitors cant? What is Your competitive advantage?

Director of GS: Our competitive advant...e gained from the professional headset market. We are very strong in terms of acoustics. We are very strong in terms of understanding how to build products with a good range, with a good performance, durability and quality and you can say our quality standards are maybe four to five times higher than average products in the market and we are kind of utilizing these kind of experiences in the market from when do professional products over into doing consumer products. So I think our brand is… At least in the past it has not been recognized for being a design icon brand. It has more been recognized for being high durability, high performance kind of brand.

Interviewer: Så det er også det I håber på at når I går ind i hørertelefonerne at de (kunder) så kan genkende denne kvalitet?

Director of GS: Ja.

Interviewer: OK.

Interviewer: Vi snakkede lid to det sidste gang. Men kan du forklare lidt mere om hvad projekt Gazelle er?

Director of GS: Yeah I can try. So we have been doing. I have been part of doing ODM in GN since 2005. From 2005 up until 2012 it was a separate entity. It was a small team consisting of me and four others. With a little bit of support from quality. And in the first long period it was actually more or less not allowed to engage with our R&D. But then gradually more… ehh… more focus was put into ODM and more interesting was taking from R&D to be part of these projects and it ended up in 2012 where the decision was made to terminate the old team and integrate ODM into the general organization. Meaning now that R&D has some of the responsibility for the R&D part of ODM development and program office is responsible for driving the projects and procurement is responsible for securing that we have the right framework and the prices together with our ODM suppliers. But today there is one single owner of ODM, where in the past there was actually a team and there was a director of ODM in the company driving it. And you can say a lot of the criticism that has been giving in the past was that there was no clear structure we had cases of suppliers where we saw a lot of issues coming up because we didn’t really evaluate them thoroughly enough before we started projects with them so we started to see a lot of issues. Had cases where our R&D had to go in… ehh… And kind of save some of these development projects, which ended up costing us a lot of money. So basically what we wanted to do with Gazelle was to kind of align around what was needed in order to be able to drive ODM PROJECTS MORE EFFICIENTLY AND then to secure that we get a structure up and running internally that can support that we can work with ODM suppliers.
Interviewer: Who made the decision about Project Gazelle? Was that top management?

Director of GS: Maybe not top top management but it was… the decision was made in corporation with Thomas Evers (Vice President of Operations and R&D) who is head of both supply chain and R&D.

Director of SC: So he is a member of the global management team. So in essence you can call him top management team.

Director of GS: He is representing top management and also in the beginning it was a part of our top management strategy and incentive that we needed to get this cleared. So form there it came to Thomas and together with Thomas we then aligned around what the activities should that we should try to improve.

Interviewer: Does this go against your history? Project Gazelle, the history of having a monopoly in the market and now going to ODM and sharing projects or any tasks. Jabra did a lot internally but now you might want to engage some companies or partners externally. Is that against your (Jabra) way of doing business?

Director of SC: Something we have done for many years.

Director of GS: We have done it for many years but it is still something where there is a certain level of resistance in the organization to work with external partners. I mean, we are defiantly not… we are not in the business for bringing anyone up to understanding our level of know-how. We pretty much expect the partners that we have to be at the right level at the time where we engage with them.

Director of SC: For the purpose are different things. So in terms of working with different partners in outsourcing in general we have worked for at least the or almost the past 10 years where our manufacturing is outsources, transportation is outsourced, so from working with outsourcing that has been done for a long time. Where this becomes very sensitive is where it starts to come very close to the heart of the company and this is where R&D is in question.

Director of GS: That is true. That is the right picture. But it is sensitive.

Director of SC: It is also your… I mean it should also be sensitive because this is essentially… This is your… This is why you exist and this is how you make money, right?

Interviewer: Is it sensistive to the R&D people or is it sensitive to the entire company?

Director of SC: Both. I mean it is cleary sensistive to… I mean how do we… As a company the fact we have something. We have some know-how, which we then can convert into… and then commercialize. So it is a balance of keeping that making sure that sort of intellectual property is not diluted or given away. At the same time leveraging of the fact that there are companies out there with some specific special knowledge or generic knowledge that you can tap into to sort of manage your risk. I mean if you were to do everything internally you will eventually become a big monster and if… Then you become very very vulnerable to ups and downs in the market, right. So sort of how do you find the best balance there. And I think that is a lot what Gazelle was about.

Director of GS: Yes. And you can say another part of it is also that in the past there was not a lot of players who really understood Bluetooth. But today actually you can say the entry barriers to moving into building Bluetooth products is becoming smaller and smaller. You can actually buy modules now in the market that are performing pretty well. Of course you can not do it as cost efficient as you can if you can develop everything from bottom up. But there is possibility for players in the market to actually go in relatively easy to start to do Bluetooth products. And that has for us meant that when we talk about Bluetooth we see it as
more and more commoditized. So even though that we still have areas where we have advantages it is becoming more and more easy to find suppliers out there who can actually support us in development of Bluetooth products. Meaning that we don’t actually have to bring them up to any level they actually more or less go in and do products for us without big level of involvement from our side. That is not the same as we see in in the professional business here as Director of SC said. There is maybe us and maybe globally maximum of three other player in the market. So let’s say there are five suppliers of professional business headsets in the market. Here we are not in the business of going out teaching anyone how to do this because that would be playing stupid so it is…

Interviewer: What challenges do you see with Project Gazelle both internally and externally?

Director of GS: uuuuhhh (laughter). Yeah I think a big challenge is one sitting down defining the activities you need to do another thing is making it is implemented especially we have this structure right now of not having real owner eh I mean it is up to the departments head to make sure that whatever we agree that they actually make sure to get it.

Interviewer: So there was the head of the department like procurement and… ?

Director of GS: And R&D and other functions. So if we decide one thing… one thing that we decided was to create dedicated ODM team that was crossfunctional meaning that there should be dedicated project managers, dedicated people from R&D, dedicated people from quality making sure that individial disciplines actually takes that responsibility and make sure that these people are kind of notified and that we have them ready for these projects is kind of a challenge and why we still have the project open to kind of secure that it’s actually being done. And also what ever change activities we do in terms of procedures it’s it’s you can say we are all busy so making sure that every body is kind of ehh taking these things that we have agreed and making sure they are implemented is a challenge.

Interviewer: Are you the manager of that?

Director of GS: Yes.

Interviewer: Ok. Yeah. So you collect the team and say we are gonna sit down now and talk?

Director of GS: Yeah.

Interviewer: Ok. Do you see any challenges externally?

Director of GS: Externally some of our suppliers are kind of met with that they think we want more documentation uhhmmm and you can say it’s it’s we are putting how to say extra work on them because we want to understand their capabilities better. So we have been pushing them through some RFI processes uhmg quite extensive in terms of getting to understand their R&D competences and quality and programme management a lot of other things that we didn’t ask them for in the past.

Interviewer: Is that the ODM suppliers?

Director of GS: That’s primarily the ODM suppliers.

Interviewer: OK. What do you do about contracts with them? Have you made some contracts already or?

Director of GS: Typically for the strategic suppliers we have a what we call a general supplier agreement which is a frame agreement where we can then do multiple projects on top that agreement.

Interviewer: Ok. Yeah. What are your prior experience with ODM uh suppliers and ODM outsourcing?
Director of GS: In terms of success criteria?

Interviewer: Uhm just in terms yeah if you have done some projects did they go well or.

Director of GS: I think we have done multiple projects since we started in 2005 I think some of them have been successful some of them have been not so successful. I think we had a we had a you can say that the balance that we need to strike when whenever we do this is we also have limited resources in for instance in Director of SCs team so we can not just add supplier on supplier on supplier because we need people who can handle them and the challenge with many of these smaller suppliers is that the they don’t have the same system setup they don’t have the same procedures as some of our strategic partners so they kind of to Director of SC’s organization they are high maintenance some of them. Uhm so therefore for a period of time in the beginning we didn’t really have a limit to how many suppliers we could take in. The good thing about that was that we actually find tailor made suppliers for the projects that we had meaning that they would be specialized in whatever product they would be doing for us. Then we went into a period where we said we need to consolidate, we need to place this around two strategiv ODM partners but the suddenly we started to work with partners who didn’t have the it wasn’t their own design we actually came to them with specification and product ID and ask them to do something for us. And that where that was when it started to go wrong or become difficult because then suddenly we were using external partners for development projects and without really understanding if they had the capabilities to actually see this through we have ended up in these situations that I talked about before and for these you can start argue that we have had some pretty bad experiences both in terms of project cost and time to market and general misanoym.

Director of SC: Beyond just R&D and product capabilities if your supplier base proliferate too much if it becomes to wide to broad you now have many many maybe small specialized companies that do one maybe two products for you. The penalty that has is that they are typically very inflexible they don’t have a big manufacturing setup or anything. So you end up having to either uh accept the fact that you are not flexible so then you you take the risk of not being able to fulfil your customers demand or you end up having to take expose to a lot more risk in terms of finished goods or what have you. On top of that then comes like what Director of GS when he says high maintenance means this can be a small moment pop shop somewhere. They have never heard about electronic communication or anything so you end up doing a lot of things for them. So it it needs to be a balance here.

Interviewer: We were also thinking about what could be the arguments for and against outsourcing of R&D to the ODM because we know that’s a problem as well?

Director of GS: For and against?

Interviewer: Yeah.

Director of GS: You can say the basic driver for is that we can not simply continue just to expand our own organization to meet our demands. There is a limit to in terms of shareholder value and everything, how much we can expand our opex compared to the number of projects we woul like to run. And that’s basically what’s driving our decisions today that eh that we need to balance out how to say the number of projects that we can do internally and the ones that we need to externally.

Director of SC: So it’s fixed versus variable cost and it’s flexibility and it is flexibility versus versus intellectual know-how and property.

Director of GS: Yeah

Interviewer: Yeah. Are there some people in the organization that are against the outsourcing of R&D?

Director of GS: I would say yes. It’s it’s you can say it’s a challenging you can say different companies does it in different ways. You can take uh we know for a fact that our biggest competitor Plantronics a few year
back they took a whole product category like Bluetooth mono and they simply decided we are no longer supporting this in-house we are now placing it with contract manufacturer “Set” and they are going to maintain our roadmap within this product category for the future. They did this for some years now we know they actually they have acquired a company in Holland to help them do more specialized design so they are kind of little bit taking the design process in-house after a period of years where they have actually based it on an external uhm uhm where was I heading with this? They way I was heading with this was in GN today we have a policy that we want to master all the technologies related to the products we have in our portfolio. So there is no product coming out with a GN brand where we don’t have the competences in-house more or less to to make it and I think to change that that it that would be a decision or eh or similar that would be required ehm ehm because basically our policy is today we we have the ability to make all the products that we have in our portfolio ourselves.

Interviewer: Yeah. But that would change with ODM outsourcing.

Director of GS: No. Not. No that will not change with ODM. Because even what we do with ODMs we actually have know-how and competences in-house so that we could go in and do the projects ourselves if we wanted to.

Interviewer: Ahh yeah.

Director of SC: Capacity you can call it from R&D perspective is a big driver. Let’s say for the sake of argument that we for the next year have 20 products in our roadmap. We know that can mean anything form 15-22 programs that come into real life, right. Some fall away and some get added. And then for the sake of the argument if we were supposed to step up internally to handle the 20 programs and at the end of the day we have five teams worth of people who are don’t have anything to do. And then if you would work like that you would essentially have to to let them go. And then so you would have a very unstable uhm uhm reality. So the point is to find the sweetsport of where you can leverage this type of flexibility, keep the core at the same time tap into some of the things there are there are can be gap fillers so there can be new types of products we want to do. Where we don’t have any any past previous experience so from time to market perspective there can be advantages from utilizing that. We may not want to spend our own resources on that specific product range until we know whether it is a success or not and until we know whether that’s gonna be like I said a gap filler or a sort of uhm uhm small product line not not not to core of our our knowledge and then as we get more intelligent and we potentially see a bigger uhm potential for such a product range we would potentially start to acquire such know-how internally.

Director of GS: But I think you can also argue if you look at our product uhm the technology base around our product it’s pretty much it’s USB it’s Bluetooth. So and to some extent in some of these technologies we are working closely together with chipset manufacturers or developers of these solutions. So we are kind of even also behind the scenes working together with the ones who are developing the platforms behind to secure that they have features and content we need. So it doesn’t really make a lot of sense for us to not be how to say know-how wise engaged in all the technologies uhm uhm it comes with the type of technology that we are working with and it’s it’s so integrated so it becomes like you said Director of SC that we are picking areas here and there where we are then choosing to work with others.

Interviewer: Yeah. Is there a form of change management because you didn’t do that before? If you used to as a company to produce all your products in-house. Do you do a form of change management?

Director of GS: I think the change management that takes place right now is more in order to secure we get comfortable about working with external partners. I think the capacity approach, flexibility approach to outsourcing we have had all the time. Uhm in the beginin with only manufacturing but also I mean also even before I started in 2005 there was products in our range that we have bought from ODM partners. There was just no team to take care of it at that time. So I think we have doing it yeah at least for the last 13-15 years but its only now that we are trying to kind of make people accept that ODM is a kind of third leg of
how we can create products. We have our Xiamen R&D, we have our Ballerup R&D and then we want people to, we want to get into a position where ODM is kind of the third solution to secure that we have...

Interviewer: How do people react to that?

Director of GS: I actually think people are positive towards that we try and… and… how to say take away some of the uncertainties and to create a structure around how to with it. It is a lot about making people comfortable in their own comfort zones to make this happen in an effective way. As long as people fear it they’re also going to work against it but you can say the biggest task in terms of change management is actually to take away all the wrong how to say not attitude but ehm there are a lot of rumours around ODM, what it is and what it is not and that is what I think we need to secure. We have had some town hall meetings where we have communicated to the whole R&D what it is about, we have tried to be very clear about that we are not doing ODM to get rid of 20% of our staff in Xiamen and Ballerup. We have kind of explained that we… we see we have this cake. We expect the cake to grow from this to this. The percentage of ODM we expect to be pretty much the same percentage but on a bigger scale than what we have today. For that we need the structure to be firm around it.

Interviewer: What kind of products do you expect ODM to produce, manufacture or design?

Director of GS: We have a you can say… we have a little bit flexible approach to this because a part from our CC&O or the professional area. Here we don’t see a lot of projects going to ODMs. We see maybe some of our low end products that we could potentially give to some of our very proven, very, how to say, with a very good track record ODM partners.

Interviewer: So what could that be?

Director of GS: That could be a low-end headset for office use.

Interviewer: So they could develop that and produced it?

Director of GS: Yes

Interviewer: OK.

Director of GS: But for mobile we actually… we have no… nothing is holly in that sense … we are working from a general assumption that all of our high-end products should be done in-house and the intend is overtime to be able to have a supplier database that can support all the products we have in the range from mid to low. But today it is actually only like a very small fraction of the products being developed in mid and low that we have partners that can support.

Interviewer: How long do you expect projhect Gazelle to go for?

Director of GS: The intention is that by the end of this year we should have the processes up and running.

Interviewer: Ok. What would the success criteria be?

Director of GS: Well the success criteria would be that our project managers know how to drive the projects efficiently when they are engaged with them and also that we have good ways of qualifying suppliers ehm that we have good understanding of supplier capabilities which should be mirrored in how efficient the projects can be run because if we are good at estimating their capabilities then we can also estimate first and foremost how many resources we need to run the projects but also when to expect the projects to be done and basically evaluate, figuring out what the right partner is for any given product. So we expect to gain efficiency in terms of the projects and also reduce the noise around the ODM projects in the organization.
Interviewer: Yeah.

Director of SC: And some sort… would it be fair to say also that evaluating of existing eh suppliers with an exit plan for the ones that are not suitable as well as identify what, which one we would rather work with.

Director of GS: Defiantly. That is also a big part of it to actually use, we are working what we are calling competency mapping so based on these quite extensive RFIs that we are sending out to the suppliers we are building a kind of competence map around which types of projects, where do we see them in terms of if they were to do Bluetooth mono headset. How do we evaluate their competences in terms of doing that and basically over time we would like to turn that around and say ok we now need a supplier who can do a Bluetooth mono headset what. What should the profile be of that supplier for him to fit in in our (unclear) portfolio.

Interviewer: How does the ODM process work? Do you start by selecting a project and then say we gotta send this out and then we find a supplier or?

Director of GS: It actually starts by we have a funnel process where marketing is presenting new products that they want to have resources estimated and then there is a drum beat. Every month we present new products and it runs its like a three week window where we can evaluate first of all how many resources are needed. The resource estimator is typically done based on whether it is an internal development or and external development uhm if its… it can also be an either or that we evaluated. And then based on resource estimations, supplier considerations and a lot of other things we then at the end of each drum beat we make a proposal or a recommendation to our management for whether it should be in-house or external and if it is external it could be between supplier A and B. It doesn’t run fully according to plan yet but we are working towards it. But that’s the general idea and then when this is, this is kind of complete then our management team they present it to marketing and explain how we want to develop these things. So what you can say is that the consideration is both based on budget and yeah. The can be (unclear) budgets, there can be people availability and a lot of other things that are considered.

Interviewer: Do you have a standard framework for that?

Director of GS: Uhm (followed by silence)

Interviewer: Or is it more you just have a project and…

32:00

Director of GS: We have a framework for the funnel. We are still working on getting the make/ buy part in to it in a good way.

Interviewer: Is it like a stage gate model? Or do you have projects and then evaluate them?

Director of GS: You can say that the funnel is the beginning or gate stage. It is actually leads up to, to providing a date for when project manager and then when the project manager is assigned we start out what we call minus 2 in our gate stage model.

Director of SC: Gate stage is when a programme has been reality, what we are talking about here is essentially before then.

Interviewer: Do you do any forms of standardization before you send out the project or? Or do you standardize when you choose an ODM or external supplier?
Director of SC: Selection criteria you mean?

Interviewer: For example

Director of GS: What we typically do is we well we, what the marketing people present to the funnel is a one pager, it is expected volumes, price points, market positioning and so forth from that one pager. And based on that we evaluate whether it is an inhouse development project or external development project.

Director of SC: And if it is an external so the answer to your question I would say is yes. There is a requirement being communicated, based on that it is an evaluation so does this fit in with our internal or is a good fit for ODM? Then again if yes, it is good fit for ODM, then these, this specific type of product that fit with either only one or multiple of ODMs we have been or would like to be working with and then if necessary there is an evaluation. I would say it is that way.

Interviewer: But it is still it is random projects from marketing department you evaluate each time.

Director of GS: Yes. You can say now I think we are working almost 16-18 months ahead in our road map process, so you can basically you can say when we start our funnel projects and until the projects are started it can be actually a window of six months. And in that window we will continuously get new projects in, so it means actually what we start to evaluate in January, supposed to start in June, may well be that that project that was evaluate in January will never make a project start if we get something in between that is more important.

Interviewer: Is this maybe a too long process? Could you?

Director of GS: We like the process to be so long as it gives us opportunity to prioritize our resources and also the projects coming in because the funnel is not supposed to you can say of course it is supposed to be a filter, but actually it is supposed to, resource estimate projects, and by having this window we can, we have also the opportunity to evaluate other potentials projects, whether they will give more benefits to the company.

Interviewer: I was also thinking, doesn’t it take a lot of resources, each time marketing come up with a project to evaluate it and again?

Director of SC: Not so much that is the point it shouldn’t take

Director of GS: No it doesn’t really. Everything runs in. We try to align it so it happens in the same meetings, but you can say basically since the technology behind most of the projects we are doing is more or less the same, it is actually you can say, if we do 12-15 new developments per year. Maybe only 4 or 5 of them have technologies that are new.

Director of SC: You would be right if we were launching totally different and sort of new product ranges, or technologies. You would be right, but there is a lot of experience that this kind of evaluation is build on.

Interviewer: Okay. How much of the supply is the ODM supposed to take care of?

Director of SC: They are responsible for sourcing the vast majority of the parts, expect for some we hold either strategically important or for safety or other regulations, so that you have chips and battery and some, such parts. So for strategic item we request them to use our suppliers, our suppliers and the rest they source themselves. The design the product, they manufacture, typically they manufacture the product, and then they ship it to us.

Interviewer: So you also, you also say it has to cost this amount.
Director of SC: Yes, we give them a target price for sure. We expect it to cost x for a product that has ABC form and function and that is how, and we sort of negotiate back and forth. Which obviously take care of, you know the model better than I do, but that takes care of the cost of parts, the NRI the investment in capacity as well as the profit for them and blah blah blah.

Interviewer: Have you experienced any problems?

Director of SC: Laughs for a long time! Well, there is instances where our expectations of price would not necessarily match their expectations of what they want us to pay, but typically that works it self out.

Interviewer: Do you have communication problems as well? For example

Director of SC: General speaking no, generally speaking it is working very well. You can always find the odd one, and there is and that can for various reasons because of management of expectations, you work for someone for a long time expected a lot of business, that hasn’t materialized and blah blah blah so if you take such I would say outliers or such things out general speaking the communication works very well. And from our process of working with these guys, whether they are an ODM or EMS or streamlined we work the same with everyone. A little bit different, you comment before, as to how advanced they are and to what degree we are integrated system to system, and that is different with some suppliers requires more hands on and manual work form our side and some less, but generally process vice and information sharing is the same.

Interviewer: Do you do quality control?

Director of SC: Yes

Interviewer: Where people from here go

Director of SC: And buy off or you audit what they do

Interviewer: Does that take a lot of resources or?

Director of GS: You can say we don’t do it. We don’t do it repeatedly, we audit the supplier before approve them. At least that has been the way we have done it in the past. Now we are actually for the more strategic partnerships we want to auditing them on their competences every six months, and also, that is also part of Gazelle, we are then working on kind of figuring out improvement areas together with them to actually define areas for improvement then use the six months audits to follow up on whether they have then started the initiatives to improve in the defined areas. But the yea, but yes we put more effort into it in the past. I don’t think audit has been a big thing, we are trying to build in, for the products running in mass production the suppliers are actually made responsible for securing the continuous to be within the specifications that, but that is a different thing. And very much we try to push it to supplier to take responsibility

Interviewer: Where are these ODM suppliers located?

Director of GS: Manufacturing vice they are in the area around Xin Xin and duguan, which is just next door to Hong Kong. Headquarter vice they are in Korea, Taiwan, Hong Kong and China.

Interviewer: So they could fore example do the R&D in head quarters and then
Director of GS: That is typically what is happening. Some of the best ODMs are located in Korea and Taiwan. They have a lot of know how, Hong Kong is also pretty okay. China is still lacking behind in terms of competences we are looking for.

Director of SC: To go back to your question before. We try to make that full sort of ownership, having said that, some of the smaller suppliers we have if they are then. We have a manufacturing footprint that is centered around China. And to where we have our sort of supply high way out, so where we then distribute goods both drop to our customers as well as through our warehouse network we have three regional inventory hubs, if you will, so where we have one specific case, where they used to have, they use their own manufacturing use their own contract manufacture in Korea, that did not fit very badly with our overall supply chain footprint, so with them, the essentially call recommended or forced, which word you want to use, them to use our EMS manufacture to core locate their manufacturing in.

Interviewer: Do you have any governance mechanism over your ODMs? Or do you just do the audits?

Director of SC: In terms of?

Interviewer: Just to see if they I mean you say that you use the audits to see if they have the right quality or do you don’t have any governance communication?

Director of SC: We do. The audit is essentially that is an overall activity to locate, do they need the standards with the regards to labor law, the quality standards, I mean this is a generic thing. There is a lot of governance surrounding communication, quality assurance, I mean there is you call it, everything down to such as OBA out of books audit, there is a lot.

Director of GS: Generally we have what we call a development process, where we basically use the same frame process for both internally and externally development and that and you can say in order for us to secure the products coming out of and ODM has the same quality as coming out of our internal development we are pretty much using the same framework so whatever requirements we have for testing, verification and specifications and so forth is the same that we acquire towards an ODM partner as internal.

Director of SC: We have specified the quality or if you look at the device the product we are specified this is what the product should be able to enjoy in terms of stress test and all we have specified that right

Director of GS: Yes

Director of SC: it has to be up to our standards

Interviewer: Do you do anything, you said last time, you don’t integrate with your suppliers at all,

Director of SC: What do you mean by integrate?

Interviewer: For example integrate by helping, help them do R&D or help develop a manufacturing process

Interviewer: Capabilities

Director of GS: You can say we may actually deviate a little bit from that now, at least for the one we call strategic partners if we starts the, how do I call it, every six months we want to do this audit and we want to define improvements areas, you can say the intention is that suppliers should be able to by themselves to figure out how to improve their capabilities, we do not want to go in and send people out to teach them how to do, we do it a little bit in some of our projects where we actually have teams from our ODM partners coming here or we are sending people out working together with them, but we are not sitting down and
teaching them we are working with them on projects. So they see how we will do it, but we are not actively seeking to explain them why we are doing this.

Director of SC: Otherwise we could just as well do it ourselves. If we had to do that we are working with the wrong partner. So we rely on them to be able to set direction and they want to invest in it so they try to build up these competences by themselves.

Interviewer: What if they can’t?

Director of GS: Then they will either remain at the same level in our qualification we are working part of this thing figuring out whether they should be exit plans is also figuring out if they are different levels of suppliers. If the supplier stays within the same level that might be fine but then he will also stay within the same level of spend. He will not have any possibility to expand his ability to drive more business out of GN. The whole process should actually the SOMETHING in the process should be if they invest in becoming more capable then we will also give them a different type of project to work with potentially with more money for him to.

Interviewer: Couldn’t it be in your interest to develop capabilities with the supplier in order

Director of GS: It is the conflict between doing it ourselves and doing it with the supplier

Director of SC: I would argue no. There are some things. In turns of developing them we have some governance related to product supply we define buffers they need to hold and stuff like that yes, but if we now talk about the capabilities such as. The whole point about using an ODM the point when it becomes win win they have knowledge which they can share generically across various products, sell to different customers and thereby, the development cost for this technology get spread out right. If we now need to bring these specifics suppliers audio quality up significantly, so we would spend that money and we would essentially not get anything in return expect for this particular supplier would able to use that. So that I would, we have had this discussion a lot, back and forth I personally completely against it.

Director of GS: It is a little bit we are looking for. It come down to what I was trying to say before, that you can chose between having ODM suppliers, which basically is suppliers with the own design and manufacturing and meaning that they have their own road map, they are developing their own line of products they are trying to send to others this means that they typically have a good category understanding of the products they are trying to make and they have worked with it for a time they have kind, they know the challenges and where to be careful. The other type of ODM manufacture is what we just call a design manufacture. They have a full R&D team but they don’t have their own roadmap. That is the type of supplier that actually rely on you to come and provide a product idea and specification for what it should be and we need at least as a company do we want one or the other type. Because it is two different types of working with external development. If we take the design manufactures then we need to be aware that we need to specify every time and we need to secure that the development team sitting at the supplier has the right capabilities.

Director of SC: And you have lost economies of scale.

Interviewer: I was also thinking isn’t it become more and more expensive hiring people do it yourself, wouldn’t it be cheaper to just outsource most of the R&D to ODMs and then help them develop capabilities and leverage on their cheap labor or

Director of SC: We have already R&D is split between here and China, so we have 50/50 more or less, so there is sort of R&D capabilities kept here is very much to the core competence audio and these kinds of things, when it comes to competitive things and low end products we do that in China already so that we from that perspective we leverage from lower costs, not so much
Interviewer: Do you think there will be a trend in outsourcing R&D putting more and more towards China or somewhere?

Director of SC: If you ask me and if I’m to answer, I think the trend towards outsourcing increase, I would say no, to be honest. I think the opposite. I’m so old, in the, not as old as him (points towards Director of GS), but older than you but sort of end nineties that is when the big telecom outsourcing started, that was as wave of outsourcing and then you had a sort of, which you typically have like a wave came back a little bit, people needed some more control and then and then when the financial crisis came again it became very important to get a lean organization and all this and that, and typically the companies that move first are the big, big ones, the big corporations, we are small fish in the sea. You can see from this, you know the big one hundred companies, they are starting to actually bring things back in because, when you outsource in order to maintain, at the end of the day you are still responsible, whether you are an R&D here or supply chain someone, the one in this company responsible for getting products out is still here, so you need to control them. I mean you need them to get a lot of things and eventually you also have to gage how much time do I have to spend controlling vs. doing it myself. So trend vice I would think no, I would see more and more coming inhouse, but I do think is there a part of outsourcing most definitely like you (Director of GS) with the piece of the pie, that for shareholder value and other things you need to make sure you don’t wish to go through what we did a few years ago a fast exercise to significantly streamline our organization you don’t want to go through that, to grow, whether your call it, you grow healthy growth, sustainable growth right.

Director of GS: I think also more that what I could imaging happen we do not necessarily maybe not tomorrow, but over the next ten years. I could imaging instead of having a huge R&D organization here it could also be something about having a network of know how to tap into whenever we need it. But as it is today we are kind of building.

Director of SC: You also need to look at, we talk of what cost of labor. Cost of labor in China has the past 10 years have increased by 15 percent per year, so ten years from now, that is not going to be the place.

Director of GS: And even when we see it today we are actually starting to being forced to hire people from Hong Kong into Xinxen and Donguan to get qualified people because it is extremely difficult to recruit people in the southern part of China, there is a high demand for people with the right skills, so finding a local Chinese with the right skills is extremely difficult now, so then you start to get them in from Hong Kong, but the price level in Hong Kong is the same as here. So then the advantage is gone.

Director of SC: Manufacturing vice it is quite interesting to see, you may have noticed in your studies oblivious but sort of per cost level and Mexico is essentially, they are as competitive as China today. And looking at the inflation rate they will not get less competitive. The biggest EMS in the world is Foxcon they are now moving production to the US, I mean and add to that the and environmental charges on transportation and all of this and that in the next ten years I think it will change quite dramatically.

53.13

Interviewer: There is also the thing where you outsource, there is also a lot of hidden costs, you don’t really take into account. Have you experienced that?

Director of SC: Yes, because we need to, in the end of the day they are not capable, at the end of the day they are not capable, at the end of the day we need to build our organization to sort of bridge or cover up for their, their lacks if you will. For that.

Interviewer: So what could that be?

Director of SC: My area supply chain is the big one, were they are lack of capability, material management and planning, forecasting, transportation that sort of thing. R&D.
Director of GS: But you can say it goes in many directions, you can also argue that some of our internal development partners they also drive indirect

Director of SC: But that is also outsourcing actually

Director of GS: That is also outsourcing, so basically you can say that everything is outsourcing

Director of SC: That doesn’t matter, that is the same

Director of GS: I think our challenge here is that there are some financial rules and regulations that does that we can only capitalize investment as long as they are related to engineering activities. Meaning that there is no pressure for us to actually to, how to say, keep count of the number of hours we spend in the supply chain in supporting our suppliers. So we don’t really have the full picture of how many hours we spent project ABC from end to end,

Interviewer: Is that something you are going to look into?

Director of GS: No, it is a huge effort registration vice asking people to do that

Interviewer: IN the end it could turn out to be more expensive to sent it out

Director of SC: In some instances maybe,

Director of GS: The challenge here is if we do not build the right structure to secure what type of partner it is that we are given what type of project then we have these cases where we know it doesn’t make sense because typically we are trying to calculate what the breaking point is between the investment, but here we are mainly looking at the engineering expenses, but there definitely a breaking point because the business model between ODM and inhouse development is different and it can also be a little bit different from ODM to ODM, but what we typically see it is that many of the ODMs are willing to they pay the tooling, which is typically in biggest expense, they pay the hours for their engineers, which also typically is a higher expense and then some of them is also paying for the type of progress, meaning the CEE marks and what ever is coming on the products. If we do this as internally development we have to do this all by ourselves so whenever we do it inhouse, it is an upfront and fixed investment. If we do it with the ODMs, they would typically require us to pay a little higher margin on every single unit coming out of the production but on the other hand, the upfront investment anything from O to maybe 1/10 of do it internally. And so what you can say basically we a re looking it, how many units can we sell, what is the breaking point, where does one model become more sufficient compared to the other and the more uncertainty we have in these calculation the poorer we are at assessing the partner where we choose to give them a project, the bigger becomes the risk in terms of this calculation not to hold.

Interviewer: How many suppliers do you have now?

56.55

Director of GS: I think we have nine ODMs suppliers and two inhouse development suppliers

Interviewer: How long time do you spend on auditing?

Director of GS: We have two definitions, we are trying to work with what we call ad hoc suppliers and what we call strategic suppliers, the strategic suppliers so of these it has taken years before, from when we started to talk to them before we actually gave them projects, the audit process it self is something that takes 3-4 months to complete. So it is basically building the relationships, understanding their capabilities.
Interviewer: How do you do that?

Director of GS: A lot of meetings, on site visits

Director of SC: Questionnaires

Director of GS: Questionnaires, but you can say that is the weak area from the past, where we are now trying to put it in to a better structure and defining the areas where we really need to go in deep evaluate their capabilities.

Interviewer: How would the future look like? What is the ideal future for you? If you finish the project this year.

Director of GS: I actually think that if we can succeed in creating ODM as a third leg, that people acknowledge as a third leg then we have been successful.

Director of SC: We can also clearly show the benefits.

Interviewer: Do you have any more questions (Interviewer).

Interviewer: No not for now.

Director of SC: So what will you write about? What are the sort of problems.

Interviewer: We are still kind of figuring it out, that was also why we are here, to figure out the right problems, we are reading about ODMs and outsourcing, strategic outsourcing and then we are going to talk to Torben, our supervisor and hopefully narrow it a bit more down.

Director of SC: Torben is the one from

Interviewer: Yeah, I think it will probably be this, I study supply chain management, and through my study I have always been told, integrate with your suppliers, that is the future, do that.

Director of SC: By integrate you mean?

Interviewer: Develop you supplier, share capabilities almost become one company. I went to Valcon conference, and they said exactly the same thing, you kind of not doing that, but I see the point in not doing that.

Director of SC: But then you can buy them

Interviewer: Yea

Director of SC: Of course develop them in a way you develop them, in a way because this is my standards, you need to be able to handle this, and we have moved, I have been here for 5 years and something we implemented after my first year was postponement I was surprised they did not have this capability before. I had it from my past life, we had it. So we said guys, this is how it is going to work. You are going to set your production you are going to set this to that, this is how you drive buffers, so yea, from a certain perspective we have developed their capabilities, so there is an element of this yes. If you say integrate you

Interviewer: In the knowledge intensive
Director of SC: You audio sucks, we are going to bring an army of our audio engineers in and show you how to do it. I don’t think that is a smart move. So to a certain extent I understand where they are coming from and we integrate system, our systems are integrated we share information electronically, we share forecasts for a year and half,

Interviewer: It most likely also depend on what industry you are in. Because your industry might be more sensitive compared to other industries. If it for example was consumer foods, then it would be easier to integrate them

Director of GS: If you take acoustics I don’t think there are many countries in the world where there are so many acoustical people being educated, because we have a lot of hearing aids and we have had a lot of speakers and audio concentrated businesses in Denmark compared to China. They actually only develop I think it is less that ten audio engineers a year. It is not something they have a lot of focus on, so the ones that are good they cost a lot, but even the ones that are good are not at the same level that we are having up here and it is anything from using the same type of. I mean in Denmark we have B&K, Bryl and Kjær, the equipment they do is placed world wide to acoustic analysis, but we have the advantage of having contacts into B&K and partly probably been part of some of the designs they are using, it just sticks so deep to have this very high competence level in acoustics, why should we go and share it I mean we can see that they are fomping around whom ever we talk to out there, non of them are capable of providing the same type analysis as we are doing here, so you can they can probably meet our requirements, but should we tell them, will we teach them how to

Director of SC: It is also an evaluation to sort of, does it make sense, it is our main EMS suppliers, so we are a fairly small company, so we are not, if you divide the EMS suppliers in to tiers, so you have the first tier that is foxcon and Flextronics, those are the big shots, below you have the celeste gather J and what not, and then we are using the third tier because that is how we become cost efficient we don’t used to be, we don’t competet with apple or those guys, we compete with our sort of type fish, so with that also as you also have walked down on this the tiers, the competeces you start to take out right, because that is how they can become less expensive. As also, when we engage such of post ponement will these guys be able to handle it, yes it take a start up and we will invest some people and some time and they will get going, and they types of ODMs we are working with they are never going to get there so I’m not even going to bother, same type with our requirements to suppliers vary with what we expect their capabilities to be. For some of them we say you need to ship in 4 days, we give you 4 days you need to ship, some we say 2 weeks, some we say 4 weeks, so for some of them we know where there capabilities are, we are not going to vaste our time developing them, but we find other ways of sort of engaging them. Interesting

Interviewer: Thank you very much for your time

Director of GS: If you need guidance in terms of which direction to go, feel free to get back to us,

Interviewer: I think we will do that.
Interview with Senior Director of Global Supply Chain Management, 13th June 2013

Interviewer: We have prepared some questions from last time and also on the literature we have been reading up on. But we could start maybe more general about ODM, I think that’s what we are gonna focus on in our assignment. We are not really quite sure yet but maybe some sort of best practice to ODM. But yeah... What has ODM outsourcing meant in terms of supply chain structure? Have you changed the structure with supply chains?

Senior Director of Global Supply Chain Management: We did change the structure overall. If I changed my response do we... do we have a different supply chain setup for our ODMs the answer is yes. The answer is yes because typically the ODMs are... we have one or couple of products with them. A number of these OMDs are smaller not so advance from a supply chain perspective. That means that that if we look at our our consumer side, our mobile products here we actually try, we run for the products, we develop our selves, manufacture at our standard EMS', we run postponement and actually customize to order. Driving that we have until this point not implemented that with the ODMs. With the ODMs we let them manufacture the finished goods and we keep that on our inventory. We have some... We have a portfolio of ODMs, I think we have roughly 7 or something right now. Out of those there is one or two of them where I could foresee that they could probably handle it. So we have actually in progress and integrated with EDI and all of these things. So starting next year we should be in a position where with one or two of them we will start. But it depends very much on their maturity. So the answer is yes. On out professional site, CCN&O we have, we run the same. But that's because we have finished goods inventory in any case. But we actually allow some longer... We are a little bit more relaxed on our requirements. We allow a little bit longer delivery lead times. So we actually... We treat them a little bit differently.

Interviewer: Yeah that was also a question why did you choose the ODMs. Do they have a cost benefit or shorter lead times?

Senior Director of Global Supply Chain Management: They are not because of their supply chain capabilities (starts laughing loudly)... Let us just put it that way. They are chosen because of typically cost and capability. We are looking for specific product or product line that is where we decide to outsource. And it is because they can do it quick because of standard design that they have and or cost efficient.

Interviewer: And what would they. What would you say that you outsource to ODMs. Is it R&D or is it the whole process of new product development or?

Senior Director of Global Supply Chain Management: It depends a little bit. But we have everything from the fact we outsource the whole thing. So that is 100% ODM. They source the components, they design the product, they manufacture it and deliver to us. With the small exception. We have a handful of components. The chip and the battery. The chip is strategic to us and we want to have the same sort of user interface to all our products so there is some chip dependency. We prefer them unless its very basic products. But otherwise we prefer... we want the user experience to be the same so point... please use this chip manufacturer and battery this is a safety and regulation issue we had... many years ago an issue with some batteries burning... stop stop we don't want to have that anymore so we qualify the battery supplier and then we point them to that. Excluding that yes we have the full ODM, then we have something we call joint development, that is, could be, we have some and that’s essentially some of our core competence related to interoperability. Interoperability is essentially how... professional headsets we have needed to work with however many... 80, 100 different systems out there and it needs to be seamless, you just plug it in. Irrespectable which system you have, and how that works, and the coding our products need to be able to understand that when it is connected and apply certain settings. The ODMs they don't have this. There is no reason for them to invest. That wouldn't make sense for them. Some sort... In some levels the connector and software related we actually need to add to some of these products. Especially. This comes into play for our professional types of products.
Interviewer: So you also, you outsource some R&D in the joint.

Senior Director of Global Supply Chain Management: Yes in the joint. And we try to improve on that. We try to make that clear ok. We have joint development whereby we do software and this and that. This is what we do and everything else you do. Try to keep it clear. And not we help you a little bit and you help us... No try to keep it clear.

Interviewer: Is that part of the ODM research in Gazelle or?

Senior Director of Global Supply Chain Management: In Gazelle it has been part of identifying, Claus can tell you more about that. These are all of the different product categories we have and depending on this, the kind of requirements on a product. So this is suitable for full ODM, this is suitable for joint ODM and this is not suitable for ODM at all, it's internal. They have been through all of our categories, both from mobile and CCN&O and plotted that.

Interviewer: Do you get some of the technology back? For example, the ODM develops so if they developed some kind of technology going into the headphones even though you specified what you needed. Do you get some of the technology on a blueprint?

Senior Director of Global Supply Chain Management: No

Interviewer: So they could for example develop a technology that would be superior to your product!?

Senior Director of Global Supply Chain Management: Could be!

Interviewer: But you don't share it?

Senior Director of Global Supply Chain Management: They would not share. No we pay for the product. Typically an ODM they do an upfront investment and then of course we pay certain NRE charge and they you pay the price per product right. But. And then we can sell the product and we can all be profitable and happy. But it is not like we get the prints, that's, this depends on who owns what. Typically, if it is 100% outsourced they own the design, it is their property.

Interviewer: You don't see that as a problem?

Senior Director of Global Supply Chain Management: This depends. If we would 100% own the design, then we are buying the whole thing. Then you end up in why do we do outsourcing. We also a big R&D centre in China. Is it because they are more efficient? So then, then you get into...

Interviewer: Because I would imagine. For example they would develop and innovate and their technology would become better and better and if you outsource all of your low to mid-end product in the end they would probably better then you.

Senior Director of Global Supply Chain Management: We don't outsource all the mid to. The thing is. Except there could be some unique competences but otherwise an ODM they are not typically at the forefront. The whole way they can get economies of scale and be profitable is that they have a certain few platforms that they sell to many customers. This is also why mono Bluetooth technology becomes more and more commoditized. So it is easier and easier.

Interviewer: Have you seen any ODMs moving, try to develop products or take market share from you?

Senior Director of Global Supply Chain Management: Not from us in the sense that they don't have their own brand. Of course they sell to other customers and our competitors. We have ODMs that build high end
products that we do. But if we talk about, how do I say that... Really advanced technology, being the
forefront of unified communications and all of this and that typically you would not find ODMs there. You
can find ODMs who have a product range that they are first movers on. We had, we still have an ODM that
do speakerphones for example. They were very fast on that product range. If you look inside of it, the
technology inside of it is not necessarily that they are pushing the boundary of technology.

Interviewer: But what for example Claus said last time that your competitive advantage was quality and
durability. Can you make sure that that gets into the products that ODMs produce. Also if they sell to other
competitors then you kind of lose your competitive advantage in those products.

Senior Director of Global Supply Chain Management: The thing is when we buy products from them. Let us
say now it is 100% ODM. Even if it 100% ODM we define. You need. These are the quality requirements it
needs to pass this kind of heat test, this kind of drop test, drop test is when you drop a product from a stone
surface from what ever 2 meters. It needs to have a certain radio
performance and if doesn't meet that you
adjust it. And these requirements will most certainly be different from different customers.

Director of Global Sourcing comes in...

Senior Director of Global Supply Chain Management: We are talking... now we are talking about
competitiveness. One thing relates to the more technical part but that is whether we buy the design. My
answer is we don't buy the design. If it is 100% ODM that is what they own.

Director of Global Sourcing: It is their design.

Senior Director of Global Supply Chain Management: If we have a joint development, of course what we
develop is the property of ours, and what they develop is the property of theirs. Where was I?

Interviewer: I don't how to do it. If we should do the interview with the both of you now, or if we should do
it with you later?

Director of Global Sourcing: I have time the rest of the day... (Claus leaves the room)

Interviewer: You said you have eight ODMs

Senior Director of Global Supply Chain Management: I think it is eight... (he starts counting silently) Yeah i
think it is eight or nine

Interviewer: How many products do they produce?

Senior Director of Global Supply Chain Management: Volume?

Interviewer: Not volume... Just the different

Interviewer: Product range...

Interviewer: Out of how many?

Senior Director of Global Supply Chain Management: (silence)... Let's say we roughly have 60 products and
out of that... what did we say... maybe ten... ten... I can look it up, we can have the statistics but somewhere
around there. But that is the sort of ratio.

Interviewer: Do you find that the new product development becomes more efficient when you outsource it to
the ODMs? Does it take shorter times to produce the products that it would have done here?
Senior Director of Global Supply Chain Management: Not always. We have... some times. When you really use a generic uh technique, technology or product and then you wrap around, we always have requirements to typically the design. This is how it looks. So from that perspective, even if it is 100% ODM, we would have input to this. This is how it should look.

Interviewer: So not technology?

Senior Director of Global Supply Chain Management: Not technology. The plastic wrap. The design actually of... Uhm we have suppliers where it have been proven later that our requirements that i talked about before in terms of radio... is at a level where they cannot. So we have fairly bad experiences with some of our suppliers where we had to send ind our resources in to fix. That also of course if one of the reasons why certain part of the company are a little bit reluctant. Look we always have to come and safe these guys, why? If we have a lot of requirements and they need to start from scratch, it typically takes similar time.

Interviewer: Would you say that ODMs at this moment are better suited for generic products based on generic knowledge in the market?

Senior Director of Global Supply Chain Management: That is also where they can be cost efficient. Like i said there is a couple of reasons and that we talked about last time why we would do ODM. One is you can call it the risk management or capacity management of your R&D. If we would staff our R&D everything we want, at different times we would people that do not have anything to do. And you cannot afford that. So either then you would sort of fire and hire and do a lot of things. Maybe you staff up to 80% of you portfolio and then you buy the 20%. The other point is of course the more generic it is then you have the chance not to spend your money and that can be a cheaper way. And that's because they leverage the generic part. It can also be from a risk mitigation point of view. If we start a new category of products we don't know this category of products.

Interviewer: So you source technology?

Senior Director of Global Supply Chain Management: We source, it could be technology but it is also risk mitigation from the fact that when they come, even if it is joint or 100% ODM uhm they take an upfront investment. The investment in NRE that i said before, the capacity, the tooling and that stuff. They take the wast majority of that. Then you make a plan, of course in their profit (unclear what he is Interviewee is saying). In the price of the unit they have some reimbursement and eventually price erosion and all this. But that means upfront we don't take that risk. So this is now new category even though we want to go for it, but we have no idea how this new category will sell. So as opposed to take taking all the risk upfront where you need to do all your investments now you do it as part of how it sells. Now all of a sudden we share risk, so that's another element here.

Interviewer: What do you do to manage all the transaction costs? For example communication about we need so and so many products, contracts.

Senior Director of Global Supply Chain Management: The contract we set up as a. When we start and work with the supplier we have what's called "General Supplier Agreement". And that covers general processes. And for a new product we just add an what do you call it an adendum or whatever that just covers specific requirements to certain product. But that's just like an adendum to the overall supplier agreement. So overall supplier agreement doesn't change. It's just these are now our requirements to this specific product.

Interviewer: What about communication? Do you communicate with your ODMs?

Senior Director of Global Supply Chain Management: Yes.
Interviewer: And how do you check quality in the products they produce?

Senior Director of Global Supply Chain Management: We specify all the requirements and then, then uhm we get the results from them and if they are...

Interviewer: For example like a prototype?

Senior Director of Global Supply Chain Management: Correct. So they need to follow. So we have this PDP typically... you said stage gate model (referring to the first interview). Everyone have a stage-gate model and we essentially have. We have a program manager from our side. Even if it is an ODM we have program managers who is responsible just to follow this program. The deliverables we have in our PDP, product development process, which is essentially the stage gate process. They have the same sort of deliverable face zero, this is need to be done this need to be done that so the ODM needs to deliver and proof that shows look it passes this, this and that. If we are now in an area such as RF or whatever that doesn't fit or is just borderline, we may decide hold on we can test this at external test house or we can test it internal just to do some verification. But obviously we would try not to do that. But generally they deliver then proof look this product it performs at his level and they give us all the data.

Interviewer: OK. You kind of get some of the information about technology and how they produce it from that?

Senior Director of Global Supply Chain Management: Not produce it. We get the quality yes. We don't. When we ODM it we don't go through their production process and stuff like that. Except for uhm... When supply chain come in we may tell them your through put lead is too long, we need to work together to find out where you can put in buffers in production and bla bla bla.

Interviewer: So you develop your supplier you can say?

Senior Director of Global Supply Chain Management: From that perspective you can say. From a technology perspective no.

Interviewer: OK.

Senior Director of Global Supply Chain Management: They are a part of my supply chain. Either I like it or not. So I can decide to have high finished goods so I can work with then.

Interviewer: You also said that there are very few suppliers in the mid to low-end segment where you outsource to ODM. I think Claus said that last time.

Senior Director of Global Supply Chain Management: We have these eight or nine, yeah.

Interviewer: But there is few in the market?

Senior Director of Global Supply Chain Management: Yeah there a many different suppliers in the market but if you look at suppliers that can sort of meet our requirements, yeah that are not that many.

Interviewer: Why is that?

Senior Director of Global Supply Chain Management: It is because ODM. I've actually been in ODM. I was both in EMS and ODM industry. I was with Flextronics for 4-4, 5 years. Both doing ODM and EMS. The issue is here that to become successful you need economies of scale, the margin an ODM supplier, now I am not talking about us, now I am talking about them, is very low. If you don't own the brand, your margin is very low. That is also why we have previously done ODM for Nokia and Samsung’s, this is not a secret and
we exited that a year and a half ago. Simply because the margin you get is very small but you take risks and any risk associated with you know end of life cost can easily eat this margin up. So how ODMs and especially the big EMS' typically make money, they do it through material management. They have an agreement with you, so they buy all the components and you have some sort of agree, this is the price you pay. You typically run with something called open book, ok we should see the price that you pay that you pay using our contract. Based on that you agree the price of a product but here is where they start getting creative because they have different customers. They know Sony's price, they know Apple's price, they know Nokia's price and most of them use the same sort of generic components. Ah but Sony has a really favourable price on this component and Apple on this and that is what they will start to do. They will buy on his agreement and that agreement and this and then they will get positive price variance. So because of this it is not a very, it is an industry, EMS industries are very very highly competitive industry where you need mass. That's why Foxconn is so huge and they are the biggest one and then half their size is Flextronics and then there is no one and then there is no one and then there is Celestica. You need to be very competitive, size is everything.

Interviewer: OK. What was I thinking... Oh yeah the trend ODM, when did that start?

Senior Director of Global Supply Chain Management: oh I don't know. I can only say if we talk about ODM from... I think it has always... When I started working, so this is now late... the beginning of 2000 then the mobile phone industry was already doing ODM. So late nineties but having said that look at the car industry. Do you know Pininfarina? They do bodies. So for a lot of Alfa Romeos and different cars. If you notice when you are out there they say Pininfarina on it. They are like a bodyshop. There are plenty of them in Italy. So then they have outsourced the design, how it looks but the engine and stuff they do. So from that perspective I think ODM is quite old. But you can look; I think the auto industry was very early.

Interviewer: Because there is hardly anything on ODM in theory. You have either new product development, outsourcing, R&D outsourcing or outsourcing to OEMs but nothing to OEMs.

Interviewer: There is the Taiwanese ODM industry concerning PC production and semi conductors.

Senior Director of Global Supply Chain Management: Yes. One very interesting you should look at how you fail. Do you know BenQ?

Interviewer: No.

Senior Director of Global Supply Chain Management: So BenQ was... they were... We use a company called Liteon they are. Taiwan have huge ODMs, they have Liteon, they have Arima, I can write it up here if you want (starts writing on the whiteboard)... Liteon, they do a lot of PC's and mobile phones. You have Arima, they do mobile phone and stuff like that you have Primax you can just go on their websites.

Interviewer: And these are located in Taiwan?

Senior Director of Global Supply Chain Management: Their headquarters are in Taiwan. When I was, I was working a lot with these guys in 2004-2005ish. That time they still had production in Taiwan. But you know the space is tiny and cost... the interesting one which does not exist any more I think was called BenQ. They were an ODM and they were quite successful doing mobile phones, projectors, LCDs whatever you called it and medical equipment I think. They decided to launch their own brand. If you maybe, 6-7 years ago uh Siemens, their mobile phone branch was basically bankrupt. They bought Siemens. When you produce mobile phones, if you gonna sell mobile phones you need certain permits because you have radio waves. If you don't have these you can fry your brain, right? There are certain things to be allowed to sell... So don't buy on the black market. To be allowed to sell you need actually a license; you need to show you have the capabilities and stuff. That was what they wanted. They bought all of Siemens for USD 1. What they inherited was debt this big (showing with his hands) so they bought it. It took a year. They tried to move
from an ODM to an OEM. OEM when you own your brand right. Because you go from a margin of here to a margin of here. But they failed. That can be used as a case to study and what went wrong. Was Siemens in such a bad shape? I think this is a big part. They took on so much debt that they simply couldn't handle it.

Interviewer: It's pretty interesting.

Senior Director of Global Supply Chain Management: This is quite different from those ones (BenQ and the rest). Taiwan is a big player.

Interviewer: How do you manage risk in the ODM supply chain? Do they, when they produce the products do they sell them or do they transport them back here or how do they do that?

Senior Director of Global Supply Chain Management: It goes into our supply chain. When we have bad performing suppliers some of them are either they have low capabilities, that can be a small supplier. We basically buffer up on our side. If they are a bigger supplier we reduce that risk and state we expect this from you. But in case of managing risk we do by through the forecast and show what they have to plan for and then as it is necessary we take on finished goods. Like I told you we have another one which is quite vigorous (he starts writing on the white board)...Fujikon... There are of course more. We will of course, first step is to work with them and then understand if it is worthwhile, if not so don't even bother but someone like Fujikon they are quite capable. So they are one of the ones we will start to really talk to.

Interviewer: Do the ODMs also outsource some of their production to other companies?

Senior Director of Global Supply Chain Management: Yes. It happens.

Interviewer: So how do you manage that?

Senior Director of Global Supply Chain Management: It happens. For one of the ones we have which is a Korean supplier they are called Inestech. They used to have their production outsourced to their Korean subcontractor. From our manufacturing footprint we have everything in the Xensendong are in China. We have other supplier in Korea but hen we have this fairly high volume stuff coming out of Korea adding you know delivery from Korea adding to weeks of delivery, transportation cost and stuff. The way we handle it with them an offer they couldn't refuse. We told them we think it is a good idea that you use one of our EMS' but it is a relationship between the two of you. We will of course help so that you can leverage on our payment. We are open about our payment, terms and stuff and this EMS want more business and you need this sorted you. If we should continue our partnership we think for you it is a good idea to use them. So essentially we told them you need to stop that. But if they would have EMS and it would be in the right footprint and it would perform that’s fine.

Interviewer: We would also like to talk about the past experience you have had with ODM. The project Gazelle has only run for a year.

Senior Director of Global Supply Chain Management: A year roughly

Interviewer: How many projects have you outsourced during that time?

Senior Director of Global Supply Chain Management: Project Gazelle has actually been more about. I would say outsourcing products that outsourcing products have run all the time. Whereas project Gazelle is more, it is a project to define a framework and governance around it. That's really what project Gazelle is. Project Gazelle is not about outsourcing as such.

Interviewer: Changing the business model going towards ODM?
Senior Director of Global Supply Chain Management: No, it's more how do we govern this. And one of the things that... you can see today we have a process where do ad hoc outsourcing and where we have outsourcing based on capacity utilization of R&D right. The problem of such an approach is that when you talk long term with these guys is impossible. How do you know the sort of products you would need to outsource in two years from now. You don't. Because it is not arbitrary, to some extent arbitrary. How many products will we outsource next year. We don't know. It depends on our capacity utilization. We will first fill up us and them.

Interviewer: You don't really develop a relationship, a long term relationship.

Senior Director of Global Supply Chain Management: We do and we discuss spend and yes. There is a lot of investment in personal relationships and all of this and looking at where we wanna be. But of course the transparency, since we haven't a strategy that... with this mapping this is the category we can really go out and talk to them but we that's not where we ended up. So we have more ad hoc and more capacity related. What we do try though we don't continue to add, as long as the supplier performs the whole point is we sell to them and then they can get more business. That's the whole end game.

Interviewer: Ok. So you already outsourced part of your products to ODMs.

Senior Director of Global Supply Chain Management: For many years. Minimum for the last ten years.

Interviewer: But some of them also went wrong.

Senior Director of Global Supply Chain Management: Yes.

Interviewer Why is that?

Senior Director of Global Supply Chain Management: The reason why it has gone wrong has been...

Interviewer: The typical reason.

Senior Director of Global Supply Chain Management: The typical reason is they end up over-promised. They don't have the technical capabilities that they claimed to have.

Interviewer: But don't you do audits?

Senior Director of Global Supply Chain Management: We do. In the past we did it less detailed than we do now. So there have been lessons learned on that. And even if you audit someone they will show look we can and the proof is anywhere in the pudding (starts laughing)... to some extent. That has been an issue for sure in the finding of who to work with. Challenge for me of course is that I’ve taken up with Claus and our boss now and again. From a supply chain point of view not optimal to have one product supplier but it is actually difficult. Because of course as when you swing up and down they have no balancing factors right. Our EMS’ they run many products and some goes up and some goes down they move their operators and this and that. Of course even these guys have different customers so my expectation is that I can use some of Philips operators now and they use some of you know. But it is clearly an issue. And that we need to manage either with more buffers or less service level and this and that.

Interviewer: Why where some of them more successful? How does the ideal ODM project run?

Senior Director of Global Supply Chain Management: From my perspective and maybe you should talk some other guys as well. From my perspective there are two elements to a few. One is of course that the supplier is audited so you know what they can and cannot do. Number two is, if you do outsourcing you need to also try to stick to outsourcing. We have a tendency of saying we kind of like this, it is good that you have
it on the shelf but then wanted to be able to do this and that and the other. And it is not of an inner product anymore. And typically what I see is where we have ended up. And then all of these fine benefits of ODM, little by little you lose them actually and the more of this you add the less was the original reason to actually do outsourcing.

Interviewer: So Gazelle was putting more strategic focus into that.

Senior Director of Global Supply Chain Management: And governance.

Interviewer: Ok.

Senior Director of Global Supply Chain Management: And that is still where it is. Gazelle will run until the end of this year.

Interviewer: OK

Senior Director of Global Supply Chain Management: The point is to have alignment and sign off between procurement and R&D.

Interviewer: Is that because they didn't really want to outsource?

Senior Director of Global Supply Chain Management: Of course it comes as the nature of the game. If I am head of R&D I consider outsourcing as competition right. They of course can't do anything as good as I can (starts laughing) I should just be allowed to hire more people. There is a natural human instinct to say that's not a good idea and we can't control this and that.

Interviewer: But I would imagine all the low-end projects I wouldn't really mind outsourcing them to focus on more...

Interviewer: Especially if it is generic

Senior Director of Global Supply Chain Management: Generally speaking yes. The only thing what has happened our Xiamen R&D...

Interviewer: Xiamen?

Senior Director of Global Supply Chain Management: Xiamen in China. We have our R&D centre here and in China in a city called Xiamen. If Taiwan is here, Xiamen is across the water. They have proven to be world class in spitting out low end. Just re-spins and new mechanic. So it is... Typically you do outsource low end. When I was in the mobile phone industry that was what we did. Here it is an element of that but it is also an element of technology you don't know and stuff like that. But you're right to the extent that you need to prioritize what should be capable of and this comes back to... ODM is a management tool and it is in your toolbox to decide to how much we need to invest and what not. What is our cost structure.

Interviewer: So for example you talked about the funnel last time where you get a project from marketing and then you evaluate and say can it be outsourced or can it not. So a lot of people are discussing that and a lot of people say no we should keep it in-house?

Senior Director of Global Supply Chain Management: Yeah (hesitant). Yes and no. There is a process to say where they have done this mapping and you should really talk to Director of Global Sourcing about this. That sort of indicate these, these are products, based on that there are products that could be suitable for outsourcing and then the question is do we have capacity to in-house develop this product by the time
marketing want it. If the answer is no, one proposal could be you get it later and we can do it in-house at this cost. Then it is no we don't so than to get it that time at that cost we need to outsource we have supplier A or B and we propose B. So that sort of discussion goes on, so from R&D perspective at the same time they cannot simply say no because all of us have a targeted launch date to hold up against. But of course they can be more or less more or less willing and the end of the day and this is also the tricky part, the end of the day, the people who will be responsible for the performance of the quality of the product is gonna come back to R&D. It is the R&D guys who are capable of defining the quality and the specifications, it should be able to perform this, this and that. Quality department will govern that and the supplier needs to adhere to it. If the supplier does not adhere to it, it comes back to R&D. So of course they have a stake in this. They need qualified suppliers; other more and more work will just come their way.

Interviewer: From a supply chain perspective do think ODM is a good idea for this company?

Senior Director of Global Supply Chain Management: Eh yes (hesitant). For sure. I am on that, i don't know if there are teams. I certainly believe as gap fillers and capacity management it make really good sense and as well trying out new product ranges. You don't how well they are gonna do so hold your bets a little bit, don't spend all your money up front, let's see how it goes, if it goes well and if it is a product category that develops lets see if we want to invest. You know it is risk management. I have so many chips I put some here and I only put one here to se what that pays. I think it is a great tool. It is more from overall management. From my supply chain perspective delivering products to my customers still needs to be seamless. So for that perspective i need to fit them into my overall system. And they don't necessarily add you additional value but the ones we worked so far we are fitting them into our supply chain.

Interviewer: Do you see in the future that you go more towards ODM. Produce and outsource more and more of your product ranges?

Senior Director of Global Supply Chain Management: It is a good question. I think, I don't know if we have roughly 15% of or something of our products, that Claus can tell you. If it will be much more, I don't think so. Maybe a little bit. I think the ratio, if it looks like this (starts painting) and this is ODM and this is in-house, I think essentially this pie is not gonna change a lot. Maybe a little bit, but it is more to stay and grow the whole thing. And that's also in managing towards R&D, guys don't see this as a thread, your piece of the pie is the same, it's gonna grow but we cannot as a company afford to take the risk of also investing into here, then we will have to go through restructuring programme the next economy downturn right. So don't be afraid, and that I know Thomas Evert, SVP of R&D, supply chain and procurement, he has also communicated, this is not a threat, all of this you still need to do (pointing at the pie diagram), this is going to grow, we may grow in China, then in Denmark and lalala but as a company it is continuing to grow but need this to stay competitive to be able to deliver more products with managed risk.

Interviewer: I still kind of see a problem with the ODM. If you for example give all the technology they develop, in the end they would innovate more and more and become better and better and you will lose that competitive advantage because they would better than you in the end because you don't do it here.

Senior Director of Global Supply Chain Management: Yeah, true. That's what I'm saying, when it comes to the key know-how that we have, so in our professional side, it is us an Plantronics really who are the experts of this operability and performance on these headsets. Unified communications you need to be certified, these guys they have, one or two of them maybe have. So if we were to outsource all of our stuff I would say yes. That point you have even further arguments for do not outsource a whole product range right. You need to stay competitive.

Interviewer: Or at least get the technology back

Senior Director of Global Supply Chain Management: There is an element of benchmarking. How, what's the total price of outsourcing it and what's our total cost and how can we benchmark versus them. I keep
coming back to EMS which is also outsourcing but not the same. If you have the size then if you can run you have your own factory again it is the same thing. You make sure your own factory is 100% utilized. But you take the ups and downs in an EMS then you both get the advantage of capacity management and you get the advantage of benchmarking. Now you know what the price you pay for having a product assembled outside, what is my price. Am I competitive or not. There is actually an element of that. It may allow yourself to be completely dependent on ODM I agree with you.

Interviewer: Are you dependent on ODM in the low-end?

Senior Director of Global Supply Chain Management: No

Interviewer: So you still keep some of them.

Senior Director of Global Supply Chain Management: To be very honest the low-end mono headsets we all of them ourselves. That is because our own team in China, they are actually cheaper than using the ODM because they do it all the time. It is actually, when we do the low-end it's not, we change the layout, we change the size, we change the color but from overall the technology inside it doesn't change all the time, they churn them up quite quickly. Make sure that you get Claus to about this and what his view is. It can be quite different from mine.

Interviewer: I'm not really sure what project Gazelle is about. It's a governance structure.

Senior Director of Global Supply Chain Management: Yes. To get structure around it and make sure as a company we have defined strategy. We put down the foot and say we do ODM because that means this. That has been a little bit fluent. Before ago when Claus and those guys (the ODM team) where in a specific team it was clear it was opportunity and ad hoc driven. So that has certain challenges, how are you gonna develop you partners if it is totally ad hoc you have no idea what's gonna happen. So can we start to move this towards (unclear what he says).

Interviewer: So develop partners as well. Finding strategic suppliers as well.

Senior Director of Global Supply Chain Management: Do we want partners or do we not. How do we select products, how do we govern that, how do we make sure we get the right partners in evaluations and audits. Project Gazelle is like an umbrella project that has all of these sub projects.

Interviewer: Ok. So have you found suppliers that you wanted to develop and have you developed?

Senior Director of Global Supply Chain Management: Yes.

Interviewer: And you've done that within the last year?

Senior Director of Global Supply Chain Management: Yes.

Interviewer: How did you do that?

Senior Director of Global Supply Chain Management: Basically developed together with R&D as well a quite extensive what you call it audit list. These are all the things we want to know. Everything we want to know to be able to judge their capabilities in hardware, in RF, in software. It is a quite extensive material and then we sent people over there to actually go through and witness in person all of this. All of this framework has actually been developed in the past year and one of them have already gone through the programme and the second one is about to launch.

Interviewer: So can say you went from ODM to strategic ODM?
Senior Director of Global Supply Chain Management: Maybe yeah, ask Claus. Let him tell you that.

Interviewer: Thank you for your time.

Senior Director of Global Supply Chain Management: That's ok. Good luck
Interview with Director of Global Sourcing 13th June 2013

Director of GS: Har siden hen opkøbt et hus med speciale i miniturisation i Holland, som er sådan et design hus, men vi ved ikke om de så bruger det design hus til at samarbejde med deres tidligere ODM partner, men vi ved også at de f.eks. bruger et andet firma, som vi kender til, men som er et specifikt ODM hus, så vi ved hvert fald fra os selv og væres nærmest konkurrent at det bliver brugt, at det bliver udnyttet. I min bog har det været sådan lidt op og ned, der har været en periode hvor der var mange udbydere af de her ODM services inden for elektronik produkt specielt inden for vores branche og så har der været lidt en afmatningsperiode, hvor nogle af dem er forsvundet igen, men nu er det som om det er kommet lidt tilbage, men det har været sådan lidt hvor populære teknologierne har været.

Interviewer: Var det så også derfor de forsvandt? Hvis nu der ikke var så meget

Director of GS: De forsvandt i en periode, hvor der ikke var så meget afsættning. Der var rigtig mange der faldt ud af markedet.

Interviewer: Det var under krisen?

Director of GS: Ja, og nu ser vi så, det er også fordi vi ser entry barrierne ind til bluetooth markedet specielt er ikke særlig høje. Det er relativt nemt at komme i gang med og der findes en masse support fra producenterne af chip set som gør at man relativt hurtigt kan komme ind og producere produkter med det, hvis man vil.

Interviewer: Rationalet bag ODM outsourcing, var det mere cost, var det fordi de kan gøre det mere effektivt eller?

Director of GS: Oprindeligt var det helt klart cost. Vi kan ikke lave ret mange projekter her internt uden de koster mellem 3-5 millioner. Med ODM leverandørerne har vi i princippet kunne gennemføre projekter til halve og hele millioner, så specielt hvis du taler om ting, hvor du er usikker på hvor meget volumen du kan afsætte på det, hvis det er nye kategorier, bliver det jo rigtig interessant i virkeligheden at lade nogen tage risikoen, som du i princippet kan tillade dig at brønde af, hvis det ikke bliver en success, altså det er meget. De er meget lidt risiko bevidste mange af de ODM partnere der er der ude, så du er, du kan reelt lave aftale med dem

Interviewer: Undskyld jeg afbryder, kan det være fordi de måske har mange andre kunder, som så?

Director of GS: Det er hele fidusen med det, du skal typisk ikke være deres eneste kunde, at de har andre kunde til at sprede risikoen over. Vi, i øjeblikket er vi i gang med et projekt med et firma som laver speakers men de laver speaker ikke kun for os de laver måske for 2O andre firmaer og den hardware som de lægger i den speaker, dvs. Den hardware og electronic, og den viden de lægger og der er den samme som de bruger på tværs af alle de her kunder, så vi køber ikke noget unikt af dem, havde jeg nær sagt, vi levere bare et design framework til dem, som er hvordan det er vi gerne vil have det skal se ud og så nogle specifikationer til hvordan vi gerne vil have det skal performe, men selv vores specifikationer har vi jo lavet udefra vi har testet nogle af de eksisterende produkter vi har lavet, så vi forsøger ikke at få dem til at lave noget der er bedre end det de kan, vi beder dem bare om at tage det de kan og så pakke det ind i et design, som vi kan leve med.

Interviewer: Da I begyndte at arbejde med ODMs kiggede i på best practices inden for hvordan man laver ODM og outsourcing?

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Director of GS: Nej egentlig ikke. Det var mig der startede sammen med min gamle chef Lisbeth Winter, og vores tilgang var mest fra købmandssiden, så vi gjorde simpelthen det at vi brugte diverse søgemaskiner på nettet til at finde en leverandør der producerede produkter inden for den kategori vi var interesserede i og så tog vi kontakt med dem, og spurgte om de var interesserede i at lave forretning med os, under de forudsætninger det skulle være vores brand der skulle fremgå af produkterne og ikke deres.

Interviewer: Har I så sidenhen haft konsulenterinde eller nogen inde?

Director of GS: Nej faktisk ikke

Interviewer: Så I har udviklet det

Director of GS: Vi har selv opbygget vores Know-how omkring det, så det vi har gjort at vi har deltaget i forskellige forummer, for at forstå hvordan andre arbejder med det. Der er rigtig mange der gjør, der gjør, hvad hedder, det, outsourcing af en produktion, eller af R&D eller offshoring eller lign., men det med at købe færdige produkter fra andre på den måde og sætte sit eget brand på. Jeg ved ikke om det er fordi man kalder det andre ting, man har i princippet altid gjort det, hvis man er en eller anden grossist virksomhed, et tøjfirma eller et eller andet, som får nogle producenter ude i Asien til at producere noget tøj for sig, det kan mange gange også være at de bare sætter deres eget mærke i nakken på det. Det er lidt det samme som ODM i virkeligheden at finde en tøjproducent, som bare laver skjorter og til fire forskellige virksomheder. Det der måske gør det lidt unikt for os er niveauet af teknologi der ligger i det. Det er produkter med en relativ høj viden bag, som vi køber fra nogle af de der firmaer, men selve. Jeg ved ikke hvor unikt ODM begrebet egentlig er hvis man begynder at tænke over det.

Interviewer: Det tror jeg heller ikke er særlig unikt i forhold til fødevare branchen sætter du også dit brand på nogle agurker du køber eller et eller andet. Jeg kom også til at tænke på Jeres competitive advantage er jo kvalitet og durability, hvordan sikre I at det er i de produkter ODM producerer?

Director of GS: Det gør vi sådan set ved vi pålægger dem vores kvalitetskrav. Det er meget sjældent vi afviger fra at produkterne skal overholde vores krav. Derfor ender det også med at der altid skal være en eller form for re-design i de produkter vi tager ind i vores bund, for at løfte kvaliteten på nogle enkelte parametre.

Interviewer: Men får competitorne så ikke, jeres konkurrenter så ikke den viden?

Director of GS: Jo, det gør de, men det er sådan et trade off vi vælger at tage, fordi det er relativt billigt at sende en qualitets manuel og lave nogle test af om de kan overholde det i forhold til, hvis vi selv skulle udvikle det fra bunden, så det er kontroversielt. Det er samtidig også det største argument for ikke at lave ODM. Det er sikringen af kvaliteten og performance på de produkter der kommer ud. SÅ spørger du vores R&D så er de ikke begejstrede for at vi laver ODM og synes vi bør lave alting selv, men indimellem bliver det en cost benefit betragtning på det i forhold til hvor langt kan vi komme, hvis vi selv skulle udvikle alting selv i forhold til hvis vi tager og lægger noget ud til eksterne samarbejdspartnere.

Interviewer: Bruger I ODM til at komme ind på nye markeder?

Director of GS: Bevidst og ubevidst vil jeg sige, f.eks. vores speakerphones. Nu er der ikke nogen herinde måske, men hvad hedder det, jo, sådan nogen som dem. Da vi startede ud med dem, da købte vi dem via en ODM partner, da vidste vi ikke, hvad potentiallet var i markedet for at putte ind i biler og vi havde ikke noget og det var meget usikkert for os, og der fandt vi en samarbejdspartner, som var relativ god til at lave det og helt bevidst lod vi så ham stå for at udvikle de første produkter, hvorved vi minimerede vores egen risiko og hvis man kigger på vores strategi for hvordan vi laver ODM i dag, så har vi nogle ting, hvor vi siger
at det kan godt være default ODM og andre ting, der er default enten her eller i Xiemen, men med ODM som observation hvis vi har problemer, men det i bunden i den der strategi og det er ligesom defineret at hvis vi har nye kategorier som skal ind på markeded vi ikke kender, som vil vi foretrække at bruge ODM som hvad kan man sige, som første led, første bølge, og hvis det bliver en success ligesom vi har gjort med de der (speakerphones), så kan vi godt finde på at udvikle og producere dem selv, men det meget et volum game, 'det vi har set over tid er at ODM kan sagtens dække, det kan rigtig godt betale sig, hvis man snakker relativt små volumener, men hvis kommer op i og kan købe eller skal bruge store volumener af det, så er vores eget indkøbs set up så effektivt at så kan vi reelt producere produkterne billigere, hvis vi kan få det ind under vores eget produktion set up. Mange af de der ODMer har ikke samme grad af economy of scale, som vi har på vores interne produktion, så ofte vælger vi at betale lidt mere til en ODM på stkprisen, det tror jeg også jeg sagde sidste gang.

8.53

Interviewer: Ser i egentlig ODM som outsourcing af R&D?

Director of GS: Nej, det gør vi egentlig ikke, vi ser det mest, som hvad kan man sige, vi har aldrig udtrykt det som outsourcing af R&D, jeg vil mere kalde det en capacity filler, altså,

Interviewer: De skal ikke stå for new product development eller?

Director of GS: Det er kun i det tilfælde det er en hel ny kategori vi ikke kender, og vi beslutter at lægge det hos en ODM partner, men så kan man sige så ligger outsourcingen af R&D, så handler det mere om at vi lægger noget til som vi ikke har i dag.

Interviewer: F.eks. den teknologi, som ligger i de der produkter, hvor du så siger vi gerne vil lave dem selv, hvis de er succesfulde, hvordan finder i den teknologi, skiller i den ad, eller?

Director of GS: Man kan sige noget af der er ikke noget i det der vi ikke selv kunne lave. Det har der aldrig været. Det er bare spørgsmålet om fra vi, med de lønninger vi har og det overhead vi har vi skal dække, før det er, før vi er igennem sådan en udviklingsproces, så har vi brugt de der 4-6 millioner på at lave det, med mange af de der ODM leverandører, især fordi de laver det på tværs af mange kunder, så bliver investeringen i at lave det også splittet ud på flere kunder, så hvad kan man sige. Den investering en ODM står overfor og lige sådan et produkt på hylder hos os er langt lavere for ham end den ville være for os hvis vi unikt udvikler det for os selv,

Interviewer: Men er i så ikke nervøse for på et tidspunkt at de her ODM bliver så gode til at producere noget generisk, hvor I jo egentlig har outsourcet alle de generiske produkter sådan at de bliver bedre og har mere teknologisk viden

Director of GS: Jeg tror vi har svært ved at forestille os de har mere teknologiskviden. Jeg ser det ikke som en trussel at de bliver bedre. I dag ser vi dem stadig i bunden af pyramidien. Og man kan sige kapacitetsmæssigt kunne vi, vi ser en trend mod flere og flere avanceret produkter

Interviewer: For jer selv eller for ODM?

Director of GS: generelt fra efterspørgsel fra markeded. Så hvad hedder det, dem der kan lave produkter i high. Altså. Det er et godt spørgsmål. Jeg er egentlig ikke bekymret de bliver så meget bedre end os, men det kan de sikkert, potentielt kan de godt, men jeg ser ikke, jeg ser den største trussel i at vi ikke formår at. Det vigtigste for os er at sikre at vi spenderer vores ressourcer rigtigt så vi kan hele tiden bruge vores ingeniører at vi har et forspring rent teknologisk og det kan vi bedst gøre ved at udnytte ODMerne på de produkter som er standardiseret.
Interviewer: Kunne det så betyde i fremtiden at bliver nødt til at give på alle de der low end

Director of GS: På at gøre det hele. Det kan sagtens betyde det.

Interviewer: Fordi de simpelthen bliver superior

Director of GS: Nu er jeg jo købmand, så min tilgang at hvis vi kunne indkøbe det billigere fra en ODM end vi selv kan producere, så ser jeg ikke noget problem i at gøre det, men det er min interne filosofi, hvis vi spurte vores head of R&D ville blive panikslagen, hvis han hørte noget tilsvarende

Interviewer: Ja, for det er jo egentlig, det ligger i jeres historie, monopol, og det er jo egentlig jeres competitive advantage, så det er jo ændring af jeres mindset og jeres business model, projekt gazelle, strategisk ODM

Director of GS: Start på det, hvert fald, men det er en proces der vil komme til at tage lang tid. Det er ikke en jeg tror, vi er ikke på plads med det fra den ene dag til den anden. Jeg vil sige det har været en. Det har været en lang rejse for mig. Jeg har en langt bedre relation til vores head of R&D i dag, end jeg havde for halvanden år siden, da vi startede, men jeg tror det har været en god proces, jeg tror vi er kommet nærmere hinanden, hvor jeg tror vi en periode, opfattede han at jeg bare sagde vi kunne gøre det med alt, og i dag tror jeg godt han forstår at min holdning er mere vi kan gøre det på udvalgte ting, men vi kan bestemt langt fra gøre det på alt og det skal vi heller ikke fordi hvis vi lagde alt ud ville vi miste vores competitive edge, altså der hvert fald ikke nogen der ude som er så bedre end os, at de ville kunne sikre at de produkter vi kom ud med i fremtiden ville have det fornødne format til at sikre vores brand name og det er det vi selv er nødt til at sikre, som jeg ser det.

Interviewer: Hvad så med alle de high end produkter, kunne det være der er nogen i det her marked der har mere viden end I har på et high end produkt, hvor I måske kan samarbejde med R&D eller et eller andet? Eller er i simpelthen

Director of GS: Det synes jeg allerede vi gør vi er i gang med at udvikle nogle ANC (?) produkter, altså nogle active noise cancellation produkter ligesom Bose har deres quite comfort til folk der gerne vil have ro når de flyver. Så lave vi faktisk tilsvarende produkter og det gør vi faktisk i samarbejde med nogle ODM leverandøre, hvor vi så bare laver det vi kalde joint development med dem, noget af viden der bliver lagt ind i det kommer her fra og noget kommer så fra samarbejdsparteren, så udnævner vi at der er nogen der ude som har lavet active noise cancellation produkter de sidste ti – tolv år, og hvor vi ikke har lavet det nu her.

Interviewer: Hvordan foregår det her joint development?

Director of GS: Det foregår på den måde at når projektet starter definere vi hvilke område vi levere og hvilket område samarbejdspartnere levere og så har vi simpelthen projekt teams fra samarbejdspartneren som kommer her til og vi har folk der tager der ud og så sidder vi også arbejde projektet igennem sammen, så man ligesom får linket leverancerne sammen i projektforløbet

Interviewer: Hvor mange har I af denne type?

Director of GS: Lige nu har vi to projekter af den art og vi er i gang med at skulle starte et tredje.

Interviewer: Tror du der kan være en fremtid i det?
Director of GS: Det tror jeg helt sikkert. Det tror jeg vi forventer generelt altså. Det der er lidt udfordringen det er nogen gange siger man jo til sig selv, at de standardiserede produkter også er dem som vi burde lægge ud, men vi har altid en udfordring at standard produktele også af dem der kører i store volumener så det ender som regel med at det er dem vi vælger at lave internt, selvom vores strategi i virkeligheden siger, de burde være dem vi skulle lægge ud, så er det dem vi kan se udefra en finansiel betragtning at vi bedre kan lave selv og så ender det faktisk med at vores high end produkter som vi som regel, som vi gerne siger vi vil lave internt at vi kan lave en bedre forretning ud af at lave det i en eller anden joint development opsætning?

Interviewer: Den teknologi som bliver skabt joint development, får i den med hjem?

Director of GS: Den del af teknologien som vi selv levere får vi selv med hjem, men den del som samarbejdspartnere definerer, det er samarbejdspartnerens

Interviewer: Så det kan I ikke bruge?

Director of GS: Vi kan ikke, ikke som sådan, ikke uden konsensus fra samarbejdspartneren. Vi må ikke bare kopiere i et eget udviklet produkt

Interviewer: Det var det jeg tænkte at i kunne arbejde videre på det

Director of GS: Nej, det ville ikke være populært og vi plejer rent kontraktuelt så vi plejer vi at skrive os til at det som vi bringer ind det er vores IP og det som de bringer ind det forbliver deres.

Interviewer: Har I haft nogle problemer med det her?

Director of GS: Ikke specifikt, ikke med de samarbejdspartnere vi har nu, men vi ser hele tiden der er kopier af vores produkter i markedet. Jeg har lige siddet i dag og kigget på noget som var fundet på gaden i Taiwan, som ligner vores produkter på en prik og hvor stikkene også passer sammen med vores produkter. Så det sker og det vi ikke altid har kontrol over det er om det kan være nogle af vores, om det kan være tools eller lign. Som er blevet taget i brug. Det har vi problemer med at forsøge og holde rede på, men vi har et team af folk siddende her som holder øje med de her ting og vi for tid til anden lægger vi også sag an i mod div. Firmaer som vi tager i at kopiere vores produkter, men det er som regel sjældent at vores, hvad kan man sige, vores faste samarbejdspartnere der er involveret, så er de hvert fald via nogle stramænd eller andet, men vi har ikke været i stand til at linke det tilbage til nogle af vores eksisterende.

17:00

Interviewer: Projekt Gazelle, der ligger det joint development også inden over, vi har lidt svært ved helt at få defineret helt hvad det egentlig er. ODM går mod at blive strategisk ODM, som en del af jeres business model, gazelle er, og så er det hele ledelsesstrukturen omkring, hvordan man skal gøre det

Director of GS: Man kan sige joint developement for os er bare en måde at drive et projekt på

Interviewer: Det er hele ODM i går mod, i går fra at have ODM partner i projekt gazelle til at nu skal det være lidt mere strategisk.

Director of GS: Noget af det vi har gjort med Gazelle det har ligeså meget handlet om at definere, hvad der skal til for at gøre det her bedre. Så Gazelle har ligeså meget handlet om, det har bl.a. handlet om at få skabt en bedre struktur for hvordan vi revidere vores samarbejdspartnere, så vi har bedre styr på hvad de kan, men også vi får bedre styr på hvad vi gerne vil have dem til at kunne og hvilke produkter, som vi med succes kan placere hos dem og være sikre på at de kan drive det uden at vi skal være involveret for meget. Så det har ligeså meget handlet om at få strukturen på plads hos os selv, til at blive bedre i stand til at forstå hvad samarbejdspartneren kan, få en struktur op at stå så vi kan arbejde med udviklingsplaner og vi kan følge op
med udviklingsplaner med samarbejdspartnere og så ligesom linke det ind i vores arbejde med hvilke produkter, hvilke projekter kan gå til hvilke leverandøre

Interviewer: Så du kan kalde det for et slags governance framework?

Director of GS: Ja, det kunne man godt kalde det.

18.33

Interviewer: Har I

Interviewer: Hvordan har I egentlig gjort det?

Director of GS: Sådan rent praktisk? Rent praktisk har vi kigge på, vi har i rigtig lang tid haft, hvad kan man sige sådan nogle Request for information og audit procedure op for hvordan vi gerne vil auditere og kontrakt producenter, hvis det bare handlede om at de bare skulle producere noget for os og de skulle måske lave begrænset indkøb og de skulle lave noget linje opsætning og noget andet.

Interviewer: Og det er stadig ODM?

Director of GS: Nej det var det andet. Det har vi haft en relativ også med, hvad kan man sige auditerings procedure og teams som tager ud til leverandøren og kigger på de her ting. Men det har ligeså meget haft fokus på bare at kigge på produktion siden, så det vi så har gjort i forbindelse med gazelle, er at vi har sat os ned og erkendt det ikke er nok når vi snakker om ODM fordi når det er ODM, så kober vi project management, vi kober R&D know how og vi kober måske nogle gange design know how og der er en masse andre ting som vi tilkøber, som vi ikke hvad hedder det, quality assurance og alle sådan nogle ting, som vi normalt ikke ville købe os til, hvis det er projekt vi selv udvikler, for så har vi jo alle de ting internt, så det vi i virkeligheden gjort, er at vi har sat os ned med de respektive afdelinger herfra med kvalitet, projekt management og R&D og så har vi så fået defineret nogle questionaires for er det for nogle ting vi gerne vil vide for at kunneasses en leverandør på de her forskellige disciplin niveauer og så har vi skabt en proces hvor vi starter med at sende den her RFI ud til leverandøren og han skal så svare tilbage på, han skal så besvare en masse spørgsmål og ud fra hans besvarelser, så gør vi så ind og laver en hvad kalder vi den, en korrektiv action rapport eller en audit rapport som vi så sender tilbage til dem og så giver vi dem typisk fra de modtager den så har de ca. 14 dage til at vi gerne vil komme fysisk på deres fabrik eller lokation, med folk fra vores R&D program management og andre funktioner for så at gennem gå de ting, hvor vi er i tvivl er hvor vi gerne validere at de ting de skriver også rent faktisk er det de gør. Og ud fra den fysiske audit der går vi så ind og laver en korrektive aktions rapport, som kommer til at danne grundlag for sådan en, en bi-quarterly auditering af det, hvor vi så ser på dem hvorvidt de ting vi siger de skal forbedre om de rent faktisk gør det og så bruger det i vores i hele vores proces omkring at vurdere deres egnethed til forskellige projekter. Oven i det har vi så også skabt det som vi kalder for kompetence mapning at vi så går ind og rater dem på de discipliner som kan være relevante for lad os sige det er et bluetooth headband produkt de skal lave, så har vi ligesom defineret hvad er det de skal lave hardware mekanik, software whatever der er relevante for at de kunne drive sådan et projekt med succes og det er selvfølgelig brudt ned i mere detalje altså ned på antenna design, akustisk design, hvor gode er de til det, så rater vi dem fra 1-5 og så skabe vi sådan et kompetence map og så prøver vi at sammenholde det med de kompetencer vi mener der er brug for til at drive sådan et projekt og det er også ret nyt. Men det gør vi

Interviewer: Så I har udviklet et framework simpelthen?

Director of GS: Vi har udviklet et framework til bedre at kunneasses deres egnethed til at drive de projekter som er på vej ind.
Interviewer: Og det skal munde ud i, at det simpelthen bliver meget nemmere, i virksomheden at sige, det her skal til ODM?

Director of GS: Ja, for samtidig med det, tanken med det, tanken med at blive bedre til at kunneasses dem altså at vi så kører, jeg ved ikke om vi skal kalde det for vores make buy process eller vores, hvad hedder det, vi kalder det også for kategoriseringsprocess, hvor vi går ind og kigger på alle vores forskellige produktkategorier og så siger vi så, hvilke af de her kategorier har vi eksterne leverandøre der kan håndtere, når vi har det på plads, så hvad hedder det, så så kan vi, hvis vi har godkendt en leverandør til at håndtere en given kategori, så når vi sidder i vores, i vores møder hvor vi diskuterer om projektet skal være internt eller eksternt så kan vi meget hurtigt gå ind og siger det her er per default eksternt, for der har vi en leverandør vi har kvalificeret til at håndtere det og det her bliver nødt til at blive internt fordi der har vi ikke nogen der kan håndtere det. Og tænke med det er ligesom at vi gerne vil udvikle flere leverandøre til at kunne dække et brede spektrum, i dag har vi defineret to leverandører, hvor den ene er en vi har samarbejdet med i et stykke tid og den anden er ny og vi skal på en eller anden måde, vores opgave over de næste måneder og år er at få udbygget den leverandør portefølje til at kunne håndtere et bredere spektrum af vores produkter.

23.18

Interviewer: Fordi vi snakkede lige med Johan hvor han sagde at ODM typisk er karakteriseret ved det er economies of scale er derfor er det svært, der er ikke så mange, fordi de skal nå en vis economy of scale

Director of GS: Der findes to vinkler på det vil jeg sige, der er nogen der er Johans vinkel som hedder at man gerne vil have nogle store samarbejdsparter og det er typisk dem der er meget struktureret og de har IDI og alt muligt andet på plads, og meget velfungerende, og nogle gange mere velfungerende end nogle af vores egne produktionstilbringer, men de har netop krav om economy of scale hvad hedder som flextronics, foxlink og hvad de ellers hedder, foxcon glemmer af de her helt store, men de er jo ikke interesserede i et samarbejde, medmindre de kan have en produktionslinje som står og laver det samme år ud og år ind, uden de skal skifte udstyr eller folk på linjen og der er vi ikke rent størrelsesmæssigt. Vi er en meget mindre spiller og derfor kan man sige, jeg er meget hvad skal man sige, jeg er lidt kritisk i forhold til vores mulighed for at gå ud og samarbejde med de her meget store karakterierne (?) i de projekter vi har er typisk mindre volumen, højere kvalitet, mange varianter og det ikke altid det der helt taler for de der helt store, så der findes sådan en større skov af ODM leverandører som ikke er særlig store, men omvendt er de heller, og de har nødvendigvis ikke IDI og en masse producenter og procedure for hvordan de gør tingene

Interviewer: Så det er noget I skal gå ind og hjælpe dem med?

Director of GS: Det er så typisk gangen vi skal gå ind og hjælpe dem med ja,

Interviewer: Jeg synes sidste gang sagde du at der var nogen der havde et road map og ikke et road map

Director of GS: Ja, jeg kaldte dem, enten så er de, enten har det eget road map, dem vil jeg kalde regulære ODM samarbejdsparter og så er der dem som jeg bare kalder for design manufactures altså dem hvor du kommer og afleverer en specifikation og så de forhåbentlig folk til at lave det for dig, men som sådan har de ikke nogen forståelse for det du beder dem om at lave, og de kunne aldrig selv finde på at sætte sig ned og komme med en ide til at hvordan det kan lave. Det er mere, den ene af de strategiske samarbejdsparter vi har, som bl.a. laver dem her ANC produkt jeg refererer til, de har bl.a. lavet ANC produkter for alle de store brands i markedet for de sidste ti tolv år, så de ved meget mere om det som kategori end vi gør, og det er helt anden måde at samarbejde med folk på, som faktisk har en stor viden om det, fremfor at prøve at presse et projekt ned på nogen som ikke rigtig ved noget om det, de kan godt finde ud af at lave et print, og de ved også noget om bluetooth, de ved også noget om antenner, men de ved ikke rigtig om de er lavede en kontakt eller om de lavede et headet det ville være det samme for dem og det er bare to forskellige måde at arbejde på. Det ene sted finder du passion, det andet sted hæver du dybest set din løn.
Interviewer: Hvilken nogen foretrækker I?

Director of GS: Det kommer an på hvem du spørger. Johan vil nok foretrække dem der hæver sin løn og jeg vil foretrække dem der har passion for det de laver for det er også typisk der vi ser de bedste resultater.

Interviewer: Har I forskellige måde at måle resultater på? Dig og Johan

Director of GS: Johan er mere logistik mand end jeg er, så for ham er det der tæller er den her samarbejdspartner kan drive en effektiv value chain, og han kan være sikker på at det de lover også er det de leverer, for mig handler det rigtig meget om hvorvidt de kan køre projekterne igennem. De har den rette grad af innovation og de produkter der kommer ud af det har det rette performance niveau i forhold til vores forventninger, så det er lidt, det er forskellige ting der driver os, vil jeg sige.

Interviewer: F.eks. markedet for alt telecommunication er det turbulent/ stabilt?

Director of GS: for bluetooth mono har det være stabilt i alle de år jeg har været her, det, som jeg husker det, så svarer det til at ca. 5% af alle de mobil telefoner der findes i markedet findes der er et bluetooth headset til. Så markedsandelen er ca. 5 % svarende til alle de mobiler, det er faktisk ret lille i forhold til antallet af mobil telefoner, men det er stadig nok til at vi kan producerer tyve millioner af dem om året.

Interviewer: Og det kommer ikke til at ændre sig?

Director of GS: Det har egentlig stået meget stille omkring de der 5-6 % i de sidste 8 år.

Interviewer: Hvad har det så gjort i har lavet hele den her omstrukturering under krisen. Blev i ramt af krisen?

Director of GS: Altså det der har været vores udfordring det var jo at vi igennem mange år har leveret rigtig mange produkter til bl.a. Motorola og Nokia, og dem har vi ikke rigtig tjent nogen penge på overhovedet

Interviewer: Fordi I selv var en ODM?

Director of GS: Ja, og fordi vi har et relativt højt overhead på og have vores set-up her og vi var ikke dygtige nok til at, det skal man nok ikke referes for, men vi var ikke dygtige nok til at tjene penge på det dybest set for 4-5 år siden besluttede vi os så for fuldstændig at droppe OEM og fokusere på vores eget Jabra brand og det har gjort at det sidste år til halvandet der er vi så begyndt at blive profitable på det vi laver på bluetooth og kan se der er en forretning i det, men vi har slet ikke de volumener vi havde for 6-7 år siden, men det er meget mere sundt for os at opererer som vi gør i dag.

Interviewer: I har ændret jeres business model

Director of GS: Det har vi

Interviewer: Har i gjort Jer nogle overvejelser om hvor langt i kan gå med det her ODM outsourcing proces. Er det sådan 22 procent ODM og 78 & skal blive her?

Director of GS: Så længe der ikke er nogen der lægger yderligere pres på os, så vi jeg vurdere at det bliver i det split sådan 8O/2O regel. Jeg har svært ved at se

Interviewer: Yderligere pres kunne være?

Director of GS: Det kunne være en bestyrelses beslutning. Det kan også være markedsmæssigt at der kom så meget efterspørgelse på visse produkter at vi ikke selv kunne nå at følge med.
Interviewer: Det er fra et markedsperspektiv, og ikke et kost perspektiv her inde fra, at i skal spare?

Director of GS: Det er der hvor jeg siger, så skulle det være en bestyrelsesting, at der skulle lægges pres på for at lave det om

Interviewer: Hvordan kan det være det er 80/20?

Director of GS: Det ved jeg faktisk ikke. Det har ligget rimelig stabilt på det niveau i de sidste par år og jeg har, og hvad kan man sige, ud fra de fremtidsprognoser vi har lavet vil de ikke ændre sig væsentlig over de kommende par år, så skal det være nogle markedsmæssige eller strategiske ting der gør at vi går ind og laver om på hvordan vi

Interviewer: Så man kan sige I tjener ikke flere penge på at lægge flere ting ud?

Director of GS: Nej det gøre vi ikke. Jeg tror også en del af de vi skal have på plads, det er at få kvalificeret flere ODM partnere. Det handler rigtig meget, så som oplægget så handler det rigtig meget om at vi skal have folk inde for deres konformt zones, specielt vores R&D. Det her har tidligere været ekstremt R&D driven hus, hvad hedder det, så det handler meget om vi skal have huset til at acceptere ODM som et alternativ, og det gør vil lige nu kun ved at gå ind bevise at det kan gøres uden at give problemer, og det er der, og det er det der har været humlen i Gazelle, at vi gerne ville sikre at vi havde en struktur til at sikre at vi kendte de leverandører vi tog ind og vi vidste hvad vi kunne forvente og vi også prøvede at arbejde på at forbedre de ting som ikke fungerede.

31.15

Interviewer: Så i regner ikke med at det ændre noget for, de ansatte, nummeret af ansatte her.

Director of GS: Ikke umiddelbart nej. Det er ikke ODM der driver ændringer af antallet, det er mere en bevidst beslutning om at flytte større dele af vores R&D ud til Xiamen, hvis vi gør det.

Interviewer: Hvad ser du som risici ved outsourcing ODM?

Director of GS: Der er self. Altid en risiko for at hvis man vælger helt at lægge, hvad kan man sige bestemte technologier ud til ODM, at man selv mister evnen til at håndtere kategorier og det næste er self. Også at du har aldrig hundrede procent hånd i hanken med hvad en ODM gør, du kan reelt godt riskere at han tager den viden han får igennem dig og bruger den til andre.

Interviewer: Den viden i forhold til hvad? Jeg troede i bare outsourcede

Director of GS: Den viden som de godt nogle gange vil gøre brug af, det er f.eks. vores krav til kvalitet alt andet lige viser vi dem jo hvordan de løfter niveauet af deres mekanik løsninger så det overholder vores kvalitetskrav.

Interviewer: Så i får f.eks. en proto type, i siger den er ikke god nok, nogen jeres R&D ingeniører

Director of GS: verbalt giver dem et forslag til hvordan de skal løse. Det kan være en måde, det kan også være, hvis det går helt galt kan det også gå ned på niveau hvor vi laver konkrete tegninger for dem for at vise dem hvordan de skal forbedre strukturen.

Interviewer: Ville det så ikke være en fordel at sige, vi vil gerne have jeres teknologi, eller det i har proppet ind i produktet?
Director of GS: Jo det, jo det kunne det godt, men det er svært at styre. Det er svært at håndtere.

Interviewer: Ville det være dyrt? Ville de sige nej den ejer vi

Director of GS: Nej, normal kan man godt skrive sig ud af det rent kontraktaelt. Det er mere det der med, et er kontrakt og noget andet er virkelighed altså Asiaterne har et sjovt forhold til kontrakter. Det er nok det hurtigste sted i verden at få dem underskrevet, og det er som regel udtryk for at de ikke læser det, altså for dem handler det mere om relationen, så længe man respekterer hinanden og man har opbygget en god relation kan man godt lave forretnings samme. Den dag der er noget der begynder at gå skævt eller de bliver træt af dig, så har du ikke nogen garanti for deres loyalitet.

Interviewer: Hvordan prøver i så at udvikle, hvad hedder det trust?

Director of GS: Vi bruger rigtig meget energi på at have folk onsite som taler tit med leverandøren og forsøger at opbygge tætter relationer til vores samarbejdspartnere

Interviewer: Det er også f.eks. i produktionsfasen, for de kan gå ind og tjekke, ser det ordentlig ud,

Director of GS: Vi har på vores egne fabrikker, eller dem hvor vores egen udvikling kører på der har vi folk der møder der hver dag på arbejde og går til tilsyn produktionen, så der er GN lønnede folk tilstede.

Interviewer: Har i været ude for at de har brudt jeres tillid, hvad kan man sige, brugt jeres specifikationer på andre produkter som i finder ud af bag efter?

Director of GS: Ikke beviseligt, men vi har set, som jeg sagde før, vi har set kopi produkter og også nogle gange set kopiprodukter hvor vi kan se på de fejl der er i tools’ne at de kommer fra kendte leverandører altså, hvor hvis vi ved at der kører en eller anden part hos leverandør a, som har en støbemærke præcis her, og hvis vi så ser et kopiprodukt der har det eksakt samme støbemærke, så ved vi jo godt det kommer samme sted fra. Det er svært at dæmme op for.
Men om du tager ODM eller om du tager vores OEMs i min bog er det samme risiko, og det kan endda være vores plastikleverandør der i virkeligheden går ind og understøttet folk der vil kopiere det med parter, uden at vi, det har vi meget meget svært ved at

Interviewer: at dæmme op for

Director of GS: ja

Interviewer: Den viden ODM generer ser i mest den som bare generisk viden der bare, i godt selv ved eller kunne det måske godt være en valueable ressource?

35.24

Director of GS: På nært det ANC eksempel som jeg gav dig, så vil jeg sige at Nioghalvfems procent vi laver, det er standard produkter, det er noget hvor vores egen viden ligger langt højere end det vi køber fra de her ODM partnere og det er også en lidt bevidst handling fra vores side, at vi, at vi, hvad hedder det, at vi ikke prøver at køre projekter med ODMer, hvert fald vores strategiske ODM partner, vil vi selvfølgelig gerne gøre det med, men med vores ikke strategiske prøver vi så vidt muligt at holde os inde for rammerne af hvad der er standardiseret.

Interviewer: Så hvad kunne f.eks. være i lægger ud til en strategisk?

Director of GS: F.eks. de her ANC headphones, det ville vi ikke lægge ud til en ad hoc leverandør. De her speakers jeg refererede til før kunne vi godt finde på at lægge ud til en ad hoc leverandør.
Interviewer: Fordi I simpelthen ikke ved noget om hvordan det kommer til at sælge

Director of GS: Det er en ting af det, men den næste, er der ikke rigtig noget rent know how mæssigt, der er ikke rigtig noget. Der er ikke noget IP mæssigt interessant i det. Der er ikke noget at tabe i det fra vores side at lave et samarbejde med andre omkring det.

Interviewer: Hvor mange strategiske ODMer har i?

Director of GS: 2 og så har vi 7 knap så strategiske

Interviewer: Som er ad hoc

Director of GS: som er ad hoc ja

Interviewer: Med de her strategisk har i lavet en plan for hvordan f.eks. alle de her slags headphones kommer til strategisk partner, eller er det stadig en evaluering hver gang

Director of GS: Vi har faktisk delvist en plan for hvilke produkter

Interviewer: Har I søsat den endnu?

Director of GS: Den er søsat og vi er begyndt at bruge den, men problemet er lige nu er der nærmest kun en leverandør, som er 100 % godkendt i forhold til den oversigt. Vi har så en anden på vej ind, men det handler rigtig meget om, det eneste vi kan udbygge den oversigt på det er at finde egnede samarbejdspartnere.

Interviewer: Og det har været svært?

Director of GS: Det er et arbejde vi først for alvor først skal starte med at starte op

Interviewer: Det var også troede Gazelle var, og i havde brugt det sidste år på

Director of GS: Den del har stået lidt stille vil jeg sige. Der er ikke, den seneste deadline er per juli måned skal der være et opløg på hvordan vi vil arbejde med leverandørerne på det område. Det har hele tiden været intentionen, men det har været meget frem og tilbage på om hvad det var der skulle ligge i det.

Interviewer: Så det har simpelthen også været en af problemerne at finde egnet, at i ikke var sikker på hvad en egnet var?

Director of GS: Der har været en tendens til at vi finder nogen og så holder vi fast i dem på godt og ondt og nogle gange lidt for meget på ondt, hvor man kunne godt ønske sig at vi var bedre til at exite de leverandører der ikke performer og så bare tage nogle andre ind. Men og så er der det her dilemma som i selv fornemmer med mig og Johan at nogle synes vi skal arbejde sammen med få store og andre synes vi skal arbejde sammen med få små. Udfordringen er lidt af de her store, at hvis vi skal drive specifikationer og være dem leverer alt det der ind så hvad hedder det, (ser ud) min chef smiler bare så fjoget, hvis vi skal drive og stå for udviklingen alle de der ting, så bliver det meget dyre projekter for dem. Det der er fordel i at det er mindre og specialiseret samarbejdspartnere det er, at de kan selv altså det bliver meget billigere for os at drive projekter igennem med en lille specialiseret partner. Anders og sådan nogle som Johan, de vil selvfølgelig godt have de her store fordi det er meget nemt at drive, eller med dem er det nemt supply chain delen og hele den her infrastruktur og produktion og alt muligt fordi det er det de er ekspertter til og det gør de smertefrit, men til gengæld er det tungt at køre selve udviklingsdelen.
Interviewer: Vil du så mene at faktisk den største udfordring det har været her og ikke at finde de egnede suppliers og audit dem

Director of GS: Det handler ligeså meget om vores egen parathed til at gøre det og få alignet og afstemt hvordan vi gerne vil gøre det her.

Interviewer: Hvor meget laver i selv i forhold til de produkter i sender ud til ODM?

Director of GS: Det er lidt forskelligt. Det afhænger lidt fra sag til sag, men i den ideelle verden skulle vi bare lave et produkt ID og en specifikation og så sende det og lade ODMen om resten.

Interviewer: Og så sender de også alt logistikke ved at sende ud til salgs steder og

Director of GS: Nej det går typisk. Vi har en stor hub ude i Hong Kong, som er vores primære kanal ud af Kina og alt hvad vi har det tyder den vej igennem som cross docking og bliver pakket om til forskellige regioner.

Interviewer: Smart. Igennem hele ODM fasen snakker i så med, det gør i jo så når i har folk ude og de hele tiden følger op, har en opdatering af at nu er de nået så lang i den her produktionsfase

Director of GS: Det kører i henhold til at vi har sådan en ligesom Georg W Cooper’s gate stage model, kører vi meget tilsvarende her en gate stage model, som, hvor vi har en, hvad vi kalder for en produkt development master sheet, som indeholder, den går fra fase minus 2 til fase f. Minus to er når projektet starter, nul når du går til business case, f er når det bliver overleveret til mass production. Og så er der forskellige steps inden for den og en hel masse aktiviteter der er defineret og den følger vi også når vi laver ODM projekter.

Interviewer: Har du nogle spørgsmål? Jeg tror egentlig – ja måske også mest i fremtiden de her midt to low end ser i dem som ikke så strategisk vigtige fra Jabra?

Director of GS: Ja, det handler mere om, der er der hvor man kan sige de store. Det vi måske mangler at afprøve det er de her store samarbejdsparterne, hvor vidt det kan betale sig om vi kan give det high volume runners, hvor vidt de kan gøre det. Hvis bare de kan gøre det minimum så godt som vi selv kan, så kan vi godt argumentere for at lægge det ud for at frigive kapacitet for os selv. Men det vil også være det, men det har vi ikke rigtig undersøgt til bunds endnu. Det vi gerne vil have, vi vil gerne finde en samarbejdspartner som er et miks af en ODM og en EMS partner, men det findes bare ikke rigtig, fordi det svare lidt til at man skulle tvinge alle vores folk her til at synes det var en god ide kun at lave EMS, ODM, det var der ingen her der vil synes der var en god ide. Hvis vi går til en som kun laver ODM og siger nu vil vi gerne have ham til at lave EMS, så har han jo en hel udviklingsafdeling, som han ikke længere kan justify og så begynder han lige pludselig at occupere 40% af hans produktions linjer på at lave noget som ikke finanser hans udviklingsafdeling og det vil give en masse uro hos den samarbejdsparter som i princippet umuligt gøre at man kan lave den slags kryds modeller.

Interviewer: Jeg kør også lige til at tænke på, hvor mange strategiske partnere vil i egentlig gerne have? Vil i have en strategisk partner for hver produkt range i har.

Director of GS: Egentlig ikke man kan sige det drives lidt af hvor meget spend vi har. Hvad hedder det. Vi begynder at nærre os et niveau hvor vi gerne vil have en tredje EMS partner, og især hvis de vækst prognoser der er på vores virksomhed holder stik, så skal vi sprede vores 80% pulje over et større antal.
Interviewer: Den her 80% den er kun til EMS her hjemme.

Director of GS: Så er der tyve procents puljen der kan man sige der handler det rigtig meget om hvem, hvilken teori der vinder, er det teorien om de små specialiseret eller de få store har jeg nærmest sagt.

Interviewer: Og det mangler i stadig at finde ud af?

Director of GS: Ja, det er der ikke 100%. Vi har lidt en tendens til vi siger gerne vi vil de store, men når vi har ni leverandøre nu så er det et udtryk for at vi ofte ender med at vælge de små.

Interviewer: Det kan vi også tage med i vores overvejelser i projektet

Director of GS: Det er lidt fordi mange af de der små sidder med en meget specialiseret viden. Det kan være sådan en garage, mom and pop shop, som har fundet på noget super smart og hvis de har en rigtig god ide, så er det, så er der jo et benefit for os i at gå ind og tage sådan en ide i stedet for selv at skulle udvikle det og måske være nogle af de første i markedet med et eller andet nyt og spændende.

Interviewer: Hvordan finder i de der bitte små nogen?

Director of GS: Nogen henvender sig selv til os, andre møder vi på messer og lign rundt omkring i verden.

Interviewer: Så det gør i også meget at tage ud

Director of GS: Det er en del af mine ansvarsområder er at rejse rundt på messer og gå rundt og slide sko op og se om der noget spændende og møde folk og bygge netværk op på den måde.

Interviewer: Jeg tror det var det, nåh men så tak for din tid igen.

Director of GS: Det er okay. Jeg beklager jeg var kommet fra at skrive det ind i min og Johans kalender.
Interview with Vice President of R&D, 30th July 2013

Interviewer: Måske kan du start med at fortælle lidt om dig selv og din rolle i Jabra

VP of R&D: Ja. Jeg har været ansat her i 7 år i den her stilling og jeg leder det der hedder Vice President of R&D i Ballerup. Jeg har forskellige roller. Somme tider har vi delt det efter divisioner og somme tider har vi delt det efter geografi. Det vil sige jeg leder R&D udviklingen her i Ballerup som består af produktudvikling, mekanik og elektronik og software og lyd.

Interviewer: Det vores emne er som du nok har læst, det er meget at finde en best practice til ODM outsourcing og ligesom finde ud af... Vi har kigget meget på interviewsne og kigget på hvad I har outsourcet og hvad I måske kunne ændre hvad der så er godt...

VP of R&D: Ud fra hvilket perspektiv?

Interviewer: Ud fra det perspektiv at... i forhold til suppliers, altså optimering af hele det her ODM outsourcing i forhold til jeres projekt Gazelle.

VP of R&D: Altså market lederskab eller supply effiktivisering eller sådan generelt som firma eller hvad?

Interviewer: Ja. Hvad er din rolle i forhold til det her ODM outsourcing, er du med til at udvælge suppliers eller produkter til outsourcing?

VP of R&D: Jeg laver... Jeg har taget den rolle i management teamet sammen med Claus at pege de produktkategorier ud, hvor vi skal lede efter ODM. Jeg er så ikke direkte med til at evaluere leverandører. Det er typisk de afdelingsledere der refererer til mig der tager med ud og laver en assesment sammen med en række andre, de giver så en anbefaling og i management teamet træffes vi så en beslutning. Så på strategi siden der vælger jeg kategorierne ud. I den praktiske del der sidder jeg mere med i et management team.

Interviewer: De produkter i sender ud er det nogen af dem Jabra har kernekompetencer indenfor?

VP of R&D: Altså det kommer an på om man taler om kernekompetencer indenfor produktkategorier eller om man taler om kerne kompetencer indenfor discipliner.

Interviewer: Altså vi kunne måske gøre begge dele. Hvad er jeres kerne kompetencer indenfor discipliner og indenfor produkter?

VP of R&D: Når man taler om ODM i forhold til kernekompetencer. Man kan godt kalde det for kompetencer men det er i virkeligheden på et andet niveau. Jeg tror det handler om at en... For at der er økonomi i at lade en ODM udvikle et produkt, så skal han helst kunne sælge til flere kunder. Så hvis vi har et produkt i dag hvor der kun er to leverandører på verdensplan. At gå ud og lede efter en ODM der kan udvikle det, vil vi skulle betale dem for at lære dem op. Så vores investering i at hele tiden fortælle dem hvad de skulle lave vil være så stort at der slet ikke ville være forretning i det. Det betyder i praksis at det giver kun mening og gå ud og lede efter ODM hvis det er et produkt at det har så bred appeal at der er mange brands på verdensmarkedet. Så f.eks. vores consumer produkter, vores mobile headset findes der mange brands og det vil sige de her ODM'er har shoppet rundt mellem 10 firmaer og øvet sig på kryds og tværs.

Interviewer: Så det er dem i ligger ud til.

VP of R&D: Så på den måde er det så fordi at det ikke er vores kernekompetence? Det kan man måske godt sige, men det er lige så meget en vurdering af nød, at hvis der kun er to spillere, så kan det godt være vi ikke synes det er et kernekompetence produkt, det er bare for dyrt at lære andre op i det.
Interviewer: Hvad er så jeres kernekompetencer indenfor teknologi?

VP of R&D: Altså det jo på lyd og wireless produkter. Det er det at lave lyd produkter og lave dem typisk i wireless og typisk i mere specialiserede...

Interviewer: Så wireless på bluetooth?

VP of R&D: Ja også wireless på bluetooth. Vi bruger også wireless på "dekteknologi" men enter wireless til kontor brug eller wireless til privat brug. Og indenfor de produktkategorier, altså nogle produktkategorier hvor der er få spillere på markedet.

Interviewer: Men er der så nogle produkter i ligger ud hvor der er kun er få spillere? F.eks. jeres ANC headphones? Dem med active noise cancellation.

VP of R&D: Dem er der faktisk også rigtig mange spillere på markedet af. Altså det er mere specialiserede. Hvis vi starter et andet sted, så har vi to forretningsområder. Vi har et business-to-business, hvor vi sælger kontorheadset og business-to-consumer hvor vi sælger privat. Og når du er over i business-to-business hvor vi sælger kontorheadset enten til contact center hvor man sidder og taler i telefon hele dagen eller til brug ligesom os, så er der praktisk talt kun to spillere på markedet. Og inden for det segment har vi ikke sourced særlig meget og Plantronics har heller ikke. Så i praksis hvis man kommer derud, så er de lidt grønne på det. Så den der halvdel, to tredjedele af vores business som er business-to-business giver det sjældent mening at vælge en ODM. Så er der den anden halvdel eller tredjedel, som er consumer og indenfor for den halvdel/tredjedel der deler vi så i noget de har lavet produktet der møder vores krav og nogle andre hvor vi laver det in-house.

Interviewer: Har i delt jeres produkter kategorier op i low-end, mid-end og high-end?

VP of R&D: Det har vi også. Men hvad kan du sige. Det faktisk ikke den der low-end, mid-end og high-end der driver vores ODM kategorisering. Det meget sjældent at et ODM projekt bliver 100% ODM. Altså det er meget sjældent at ODM’en tager ansvaret for alle discipliner.

Interviewer: Hvordan kan det være?

VP of R&D: Måske vil vi have vores software i for at få nogle features ind. Måske vil vi gerne have vores software i for at spare nogle royalties. Vi har noget kode hvor de skal købe det et andet sted fra. Det kunne være et eksempel. Der kan også være ODM leverandører som er stærke i mekanik og kan finde ud af hardware men som ikke kan finde ud af audio for eksempel så vi kan af nød også gå ind og dække en disciplin. Så af den ene eller den anden grund bliver de tæt til joint. Og du kan så sige at der er nogen produkttyper som er nemme at køre i joint, altså hvis et produkt er stort fysisk, så kan det være nemmere at have én teknisk løsning i det ene hjørne og en anden teknisk løsning i det andet hjørne og lave sådan et samarbejde hvor man ligesom kan løse to forskellige problemer uafhængigt af hinanden og støde det sammen til et produkt. Et af de områder hvor vi ikke kører så meget ODM det de meget små produkter fordi hvis man af nød ender lidt i et joint samarbejde så kan det være meget svært... Altså det bliver utroligt meget samarbejde hvis det bliver virkelig miniture produkt og der skal sidder folk...

Interviewer: Men er det så jeres low-end de små produkter?

VP of R&D: Mange af vores low-end er faktisk små så på den måde så kan du sige vi har noget low-end som vi har in-house vi laver i Kina, men vi laver det helt klart i vores egen afdeling fordi at joint set-up ikke giver mening.

Interviewer: Hvad kunne low-end f.eks. være? og hvordan definerer i low-end?
VP of R&D: Low-end ud fra et prispunkt.

Interviewer: Så det simpelthen det i ikke tjener særlig meget på?


Interviewer: Så den teknologi i går ind of f.eks. og laver i det der joint-development, er det noget ODMen får adgang til når i så skal gå ind og sige den teknologi laver...


Interviewer: Men er det noget ODMen får adgang til?

VP of R&D: Altså de får, hvad kan du sige... I nogen grad. Det er ikke noget vi er så bange for.

Interviewer: Hvorfor ikke?

VP of R&D: Fordi... hvad kan man sige... Hvis vi giver ham ansvaret og de ikke kan finde ud af det og vi så hele tiden lærer dem op, ja men så får de en IP, så står de bagefter og kan lave noget de ikke kunne lave da de startede. Hvis vi ender med en assessment up-front at de kan lave de her to discipliner men de har ikke kompetencer til at lave RF for eksempel. Men så laver vi så et joint-samarbejde, men så lærer de heller ikke ret meget af det. De kan bagefter selvfølgelig se hvordan løsningen så ud men læringen ligger i at udvikle... De kan også købe et produkt på markedet og skille det ad. Det ville de heller ikke lære ret meget af. Så hvis man ikke får fingrene ned i det, så er deres læring begrænset. Men deres læring er selvfølgelig stor i det tilfælde hvor vi giver dem ansvaret og opgaven men at vi fører hånden for dem og lærer dem hvad der er rigtigt og forkert.

Interviewer: Claus sagde at når I laver joint-development, så får i hvis produktet er succesfuldt og der er et stigende demand, så tager i produktet hjem eller til Kina og producerer det selv.

VP of R&D: Udvikler den næste...den efterfølgende...

Interviewer: Er det så noget der tager... Altså den teknologi ODMen har lagt i, den har i vel ikke adgang til?

VP of R&D: Den måde vi gør det på det er at et produkt måske lever på markedet... I den kategori som er consumer, hvor vi taler ODM, der lever et produkt på markedet fra 1,5 til 3 år eller i den omegn. Det Claus taler om hvis et produkt har været på markedet i 2-3 år og man skal til at lave efterfølgeren som er et helt nyt produkt, ikke bare en tilpasning men et helt nyt produkt. Så kan det være vi laver det in-house. Men så starter man ligesom forfra, så bygger man ikke. Vi skelner mellem om man laver en tilpasning, en ny farve på et produkt eller den slag.

Interviewer: Det kunne ODM selv stå for? At lave tilpasningen?

VP of R&D: Så længe vi er nede i en tilpasning bliver vi altid der hvor det designet oprindeligt blev lavet.

Interviewer: Der var mere fordi at Claus sagde at det tit var dyrere og købe per stykvis hos en ODM end at producere for jer selv, men i tager det selv hjem når i skal til at udvikle...

VP of R&D: Når markedet er blevet træt af det og man har brug for et nyt produkt for at være konkurrence dygtig. Jeg har ikke set det andet ihvertfald.
Interviewer: Indenfor teknologi så var det audio i havde kernekompetencer indenfor og den anden var wireless.

VP of R&D: Ja vi siger jo at vores R&D foundation eller core er at vi er produktudviklingsfirma, det nummer et. Det lidt utraditionelt. De fleste er et IP firma og udvikle en speciel algoritme eller noget man kan patenterer. Der findes ikke ret mange firmaer som i virkeligheden er core omkring udvikling af produkter. Men det er vi og det har vi været i noget tid, så hvordan kan vi være det. Hvordan kan man differentiere sig på at være gode til at lave produkter, det vil ODM også kunne. En del viden er i det at kunne hvad kunder vil have og omsætte det til tekniske løsninger og laver produkter. Så vi har været i denne her rolle i 5-10 år og vi ser sådan set et lederskab i den her rolle.

Interviewer: Indenfor jeres kategori?


Interviewer: Men det er vel også det i outsourcer indenfor lyd?

VP of R&D: Nej selv når vi outsourcer så stopper vi vores algoritmer i. Så vi vil aldrig... I kan godt stoppe vores lyd algoritme i et produkt selvom det er et ODM produkt uden at de får adgang til IP.

Interviewer: Vi havde lidt opfattelsen af at ODM stod for det hele sådan I faktisk købte et fuldstændigt færdigt produkt.

VP of R&D: Nogen gange gør vi også, men så kører de med en standard algoritme. I mere high-end stopper vi vores egen algoritme i produktet. Men de får ikke adgang til algoritmen.

Interviewer: Så alt low-end er bare noget i kan købe direkte og high-end er joint-development?

VP of R&D: I low-end hvor vi kan købe det direkte har vi heller ikke vores eget IP i.

Interviewer: Så den teknologi der ligger, vil du sige at den er forholdsvis moden i det i ligger ud til ODM når det er standard især hvis i outsourcer meget at low-end?

VP of R&D: På IP siden så er den. Udfordringen i det her er på det man kan kalde for håndværk end det er på IP. Altså implementerer man løsningen... hvad kan man sige... et bluetooth produkt kan have to meters rækkevidde eller ti meter eller femton meter. Det er et bluetooth produkt ligebyldig hvad. Altså der er ikke nogen lavere grænse for godt man skal være for at kalde sig for en... Så der er stadig en differentiering i hvor godt et produkt man laver, hvor god en lyd man laver. Men det er ikke en teknologi, det er mere en håndværks kompetence.

Interviewer: Men den teknologi i så laver her er det så state of the art lyd eller er det mest bare lidt moden teknologi i arbejder videre på?

VP of R&D: Det er ikke state of the art hvis du sammenligner det med tv produktion eller high-fi eller den slags specialiseret. Så lyd spænder bredt. Hvis man nævne ind omkring consumer elektronik eller praktiske værktøjer ligesom værktøjer i kontor brug, så ligger vi i top to, top tre.

Interviewer: Er det en teknologi der er ændres hurtigt, er det meget usikkerhed omkring hvilken retning teknologien vil bevæge sig hen imod?

Interviewer: Og det er simpelthen fordi det ligger ude hos chipdesigneren der har den IP?


Interviewer: Og så kan du ligge det ind i ODM produktet til sidst?

VP of R&D: Nej, over i B2B ligger vi det ikke i ODM

Interviewer: B2B er kun in-house?

VP of R&D: Ja, der er nogle enkelte undtagelser men hvis du kigger på de store liner så... altså jeg tror vi har måske otte produktkategorier i good-better-best... Vi har en 22-24 typer hvor to tol tre af dem som er i ODM men de andre typer er internt. Så i de store liner er det internt

Interviewer: Hvor mange produkter ligger i typisk ud til ODM?

VP of R&D: Enkeltstående projekter. Vi kan have en seks til otte stykker af gangen i udvikling.

Interviewer: Er det så om året?

VP of R&D: Nej. Altså sådan kontinuerligt og de kan tage alt fra otte måneder til 1,5 år.

Interviewer: Vi snakkede sidst om at en 80/20 fordeling med Claus om. Hvad synes du om det, er det ideelt for jer eller hvordan vil det være ideelt set? Hvor meget R&D kan i outsource her ideelt set?

VP of R&D: Altså det kommer an på hvorfor man gør det. Hvis du kigger ud på det for et fleksibilitetssynspunkt, ikke et cost men fleksibilitetssynspunkt, så er 20% et fornuftigt tal. Så hvis du ligesom skal kunne i nogle perioder lave otte projekter og nogle projekter lave 10 og nogle lave 12, så er det fornuftigt at have en variation på 20%. Så kan du sige at du har interne folk til de 80 og så kan du håndtere peak belastninger som sjældent er mere end 20%. Så det en måde at kigge på det. Hvis det var en cost besparelse i det så vil man ikke kun gøre det for at kunne håndtere en peak belastning men også gøre det i de situationer hvor det var billigere. Det så en anden vinkel på det.

Interviewer: Men gør i det så her?

VP of R&D: Altså vi gør det nok mere... vi ender nok mere på de 20% i nogle udvalgte kategorier hvor vi kan få det til at virke og hvor det er billigere. Hvis det var ren fleksibilitet så vil det sige ligeogyligt hvilket projekt de kom med så vil vi bare ligge en af dem ud. Det gør vi ikke rigtig.

Interviewer: Så det er mest perspektiv?
VP of R&D: Ja det vil jeg sige. Altså vi vender den om. Når vi hele tiden spørger om vi kan starte et projekt så kigger vi efter... Det ikke sådan at marketing kommer med en lang ønske af produkter og vi laver dem. Vi kigger hele tiden er der et match mellem det de ønsker og der hvor vi har frie ressourcer, så laver vi dem i den rækkefølge.

Interviewer: Der hvor i så ikke har frie ressourcer kan i så sige at vi så skal ligge det ud?

VP of R&D: Ja

Interviewer: Hvor meget du så at jeres i egentlig kan ligge ud til ODM outsourcing eller generelt produktudvikling?

VP of R&D: Det kommer an på hvor lang en tidshorisont du har et samarbejde med dem. Altså vi har tre løsninger. Vi har en R&D afdeling i Danmark, vi har en R&D afdeling i Kina og vi har nogle ODM samarbejdspartnere i Kina. Så der er rigtig meget vi ligger ud fra Danmark men en stor del af det vælger vi at ligge i vores egen afdeling i Kina i stedet for at ligge i en ODM i Kina. Og det gør vi fordi at den del vi ligger i Kina det den hvor oplæringen er meget lang. Så et typisk ODM samarbejde, altså hvis du kigger historisk så holder mange af dem ikke mere end 3-4 år. Altså der er mange spillere på markedet, der er en relativ stor udskiftning, det er svært at komme ind i et strategisk samarbejde hvor man arbejder sammen med dem i rigtig mange år.

Interviewer: Men er det ikke det i ønsker?

VP of R&D: Jo men hver gang man kommer halvvejs så sadler man om igen. Hvis oplæringen er tilstrækkelig lang, i det første projekt er de rigtig under oplæring, i det andet er de nogenlunde, der monitorerer man dem og i det tredje er de selvkørende. Hvis vores cyklus så er 1,5 til fire år så kommer man nemt i en syv-otte år inden at de ligesom bliver slutter helt fri. Og i alle de kategorier hvor vejen er så lang så ender vi mere i vores Kina afdeling end at vi kigger i vores egen afdeling i Kina. Så sådan langsomt fået det lært uden at det er os der har investeret i at lave dem op. Sådan startede det, så udviklede det sig over tid til at blive mere integreret at der var nogle bestemte produktkategorier som vores behov ville inddele i ODM og det er der hvor enten cyklussen er kortere eller at man reelt kan være delvis selvkørende i det første projekt og være fuld selvkørende i det andet projekt.

Interviewer: Så i sådan nogle standardiserede produkter hvor der allerede er en standardiseret teknologi der kan blive lagt ud til ODM?

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Interviewer: Claus han nævnte noget med at jeres strategi var egentlig et strategisk samarbejde hvor man arbejder sammen med dem i rigtig mange år.

VP of R&D: Det er nok for tidligt at sige. Altså du kan sige det handler om de forstår vores krav og de er i stand til at møde dem. Altså sådan nogle produkter der har været på markedet i mange år og hvor der ikke er så stor differentiering. Så har de sådan langsomt fået det lært uden at det er os der har investeret i at lave dem op.

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strategisk samarbejde med en men hver vi kom til det næste projekt så havde vi et strategisk samarbejde med den næste, så på den måde var det ikke rigtig strategisk.

Interviewer: Så hvad definerer du som et strategisk samarbejde?

25.00

Interviewer: Hvad definerer du som strategisk samarbejde?

VP of R&D: Det er, altså, et strategisk samarbejde er stadig et business samarbejde, så hvad kan du sige, de skal tjene penge på det, vi skal tjene penge på det, men at vi kigge længere end den enkelt stående ordre eller projekt vi laver

Interviewer: Så det indgår i et form for forhold til dem over lidt længere tid

VP of R&D: Det er rigtigt. Mange ODM vil også gerne kalde det strategisk, hvis de tjener penge på det, så er det fint nok, så må vi kalde det hvad vi vil. Men altså det er vel længere varende end et projekt og det er tænkt længere varende. Jeg vil så sige at den strategi Claus referer til nu har vi arbejdet på i et års tid og vi er også begyndt at for at forfølge den, men vi er ikke rigtig kommet igennem den første cyklus, så den skal ligesom stå sin prøve når man skal stå ved sin anden beslutning og stadig holde den samme kurs

Interviewer: Hvornår kunne det være?

VP of R&D: Det kunne være, du kan sige på vores musikprodukter, der er vi på vej in anden bølge nu,

Interviewer: men musikproducenterne er ikke dem i lægge ud vel?

VP of R&D: Jo, den her type musik produkter også ANC, bluetooh. Det her produkt er lavet sammen med en ODM der hedder Fujikon, hvis i har talt om det, i joint samarbejde, så de har lavet mekanik og akustik og vi har lavet elektronik og software.

Interviewer: Er det typisk sådan et joint samarbejde foregår? Eller kommer en ODM også og siger jeg har det her teknologi og i har det her teknologi og så sætter i det sammen?

VP of R&D: Nej, det er mere en assessment fra vores side at hvad kan du sige

Interviewer: Hvad vil du kalde det der segment for musik høretefonerne?

VP of R&D: Det kolder vi, altså vi har forskellige, marketing kalder det jo lyd, marketing og vi har forskellige navne. Marketing har et voice segment og et musik segment, i musik segmentet har vi delt det op i store produkter og miniature musik produkter. Og et er fordi nogle af vores miniature produkter ligner i virkeligheden mere vores voice og tale produkter. Det ene er om de har nogle marketings fællesnævner og det andet er om de har noget teknologi fællesnævner ikke. Når vi vælger ODMer kigger vi mere efter tekniske fællesnævner end vi kigger efter marketings.

Interviewer: I forhold til low-end, high-end, mid-end

VP of R&D: Mid to high. Du spurgt eftet, de her produkter har vi lavet med en som på vej i et strategisk samarbejde, mange af vores små produkter, tror ikke vi har nogle af dem her. Altså produkter i den her størrelse (vise lille øreplug) der har vi shoppet meget rundt. Det at vælge en strategisk partner og få veje ind i første fase og så prøve dem af.

Interviewer: Okay, jeg troede i kun i ville have en til to strategic supplier partners
VP of R&D: De har vi også. Den ene er den her (musikhøretelefon) fujikon og den anden har vi sat navn på, men det er først i august de får awardet deres første projekt. Så skal man ligesom måle det på at man komme ud af det første projekt og man også får det andet, så er der et stykke vej ind der.

Interviewer: Det vil sige, at de her strategic suppliers kan både stå for de små produkter, hvor vil du klassificere dem.

VP of R&D: For vores consumer products der dækker de det her, og vores business to business, head band som det her, det hedder bluetooth stereo småt og så findes der bluetooth mono og bluetooth start. Bluetooth mono er sådan noget man bruger i bilen hvis man bare skal tale i telefon, bluetooth start sætter man op i. Altså til sidst findes der bluetooth musik, sådan noget som det her, speakers, hvad kan du sige, så har vi oppe i det her segment

Interviewer: Så det er corded og stereo

VP of R&D: Altså store produkter, så kan du sige, de her er meget forskellige prispunkter meget af det her (midten) blive solgt for nioghalvfem dollars, noget af det bliver det dyreste solgt for 2nini og noget af det her bliver også solgt for det, så high end, altså der meget forskellige prispunkter selvom det hedder high på det dyreste, så meget af det der ligger her i midten

Interviewer: Så care, mono

VP of R&D: Så det laver vi i Xiamen i vores egen afdeling for det bliver lidt småt, så den anden strategiske partner vi leder efter er en der kan lappe delvis ind over fujikon fordi vi ikke vil være afhænging af en og som kan lave noget low end.

Interviewer: Low end det kunne være?

VP of R&D: Vi har valgt en efter en, som ikke kan nå helt op i high end på de her, men nå her op omkring, så har vi breder

Interviewer: Som kan lave mange flere produkter fra jer?

VP of R&D: Så der findes to slags ODM. Der findes nogle ODM som er meget smaller, som kun kan lave en kategori, men de sælger til gengæld produkterne til top brands, så hvis de er blevet lært op af Bose eller beats, så dækker de også vores behov, så de kan komme relativt højt op, men de er også relativt smalle. Så findes der nogle andre ODM, som har alle mulige produkter, men som ikke leverer til top brands, dvs. De typisk kun kan dække vores behov på de basale produkter hvor der ikke er noget IP og hvor der ikke er noget differentiering, men hvis vi skulle tage dem her op skulle vi lære dem op. Den anden vi har valgt det er delvist ind over det her område, men har en gren ud, lige nu er vi i gang med at prøve dem af 32.25

Interviewer: I stereo?

VP of R&D: I stereo, vi har ikke taget dem med ud, de kommer ligesom igennem det første projekt

Interviewer: Er der et akut behov for at finde ODM’er der skal kunne lave visse produkter eller er det bare i sådan generelt prøver at afprøve om de kan?

Interviewer: Så jeres strategic partners de skal både kunne lave low end, og så fujikon kan lave high end.

VP of R&D: Vi har en der vender den vej og en anden der vender den vej. Og der skal helst være tilstrækkeligt overlap her til de ikke føler at konkurrence, at de ikke føler de har vundet business, der skal være et vis element hvor de slås om business. Giver det mening?

Interviewer: Det giver meget mening ja, men de her strategic suppliers, i laver ikke andet end at sige at så kan i måske stå for flere af vores produkt kategorier og vi arbejder sammen med jer på længere sigt. Det er ikke noget med at integrerer og lære dem op?

VP of R&D: Altså den grønne (Fujikon) den har kørt meget i et joint development at de laver mekanik og hardware. Jeg tror ikke vi lærer dem op i software der er de langt fra, komme de over tid til at tage noget hardware, det gør de nok, de vokser ikke så meget i kategorier, men de vokser mere i mindre joint og mere ODM, her nede de kommer mere ind i nogle kategorier, hvor der ikke er ret meget joint. Så det begrænset kategorier de kommer ind i, men de får mere af det ansvar der dækker næste alle discipliner

Interviewer: Kunne du se en fordel ved i at indgå i et nærmere samarbejde med de her strategic suppliers om at lære dem op

VP of R&D: Ja, vi har diskuteret det i den forstand, skulle vi tage den grønne og lære dem op. Der kan du sige en opgave af en vis størrelse for at joint samarbejde giver mening en opgave kan være for lille til at dele den i to, så når man ikke tager fujikon ned i de her low end kategorier så er det fordi at de ikke kan hardware tilstrækkeligt godt, det giver simpelthen ingen mening at forsøge at lave et joint samarbejde med en lille opgave, så her nede går du måske tyve mande måneder i at lave en produkt, her oppe går der firs, tyve er bare for lidt at dele, så hvis de ikke kan det hele så er de slet ikke i spil til det. Skulle vi lære dem op i det de mangler så at de kunne lave vores low end produkter er en af de ting vi mangler, men der har vi sagt at det er vigtigere at have en konkurrent, så vi har bevidst valgt at den røde skulle gå her ind over i stedet for at lære dem op. Og en af options var at lære dem op og så ligge den røde her over og så lære den op, så det var en hel anden specialiseret kategori, hvad der lige var af plus og minus så valgte vi dem fra. Det er en af grundene, så er der en mere spekulativ, de her inde som er meget brede, men ikke, de kan lave alt muligt med elektronik, men de har ikke decideret produkt kategori viden, de har ikke viden om hvad der skal til for at være konkurrencedygtige, de laver kun det man siger de skal kan man på sig lære dem op og flytte dem her op af, først prøver dem af her og så giver dem nogle low end så er man 4 år ude fremtiden for at vi begynder at tale.

Interviewer: Tror du så de her strategic suppliers, du sagde jo før så fandt i en strategic supplier og så skiftede i? Kunne det ske det samme her?

VP of R&D: Ja, altså du kan sige, altså vi diskuterer meget at vi er nødt til at give dem nok, vi er nødt til, vi vælger at, give dem nogle projekter hvor de viser hvad de kan, men vi er nødt til at give dem nok til de får business, altså det der sker, det der er sket på mange af de andre, det er, at de har troet de har fået en masse business, derfor har de givet os deres bedste team, og når de har set det, så giver de os c teamet, når vi får c teamet og de ikke performere, så fyrer vi dem og så starter vi med en ny, så vi er nødt til at balancere det, både at lave nogle kontrollerede træning af dem, men samtidig give dem nok forretning til at det er vigtigt business for dem

Interviewer: Så alle de der seks syv otte ODM ad hoc i har. Er det alle sammen et C-team i far?

VP of R&D: De har alle sammen været tænkt som de var fantastiske og endte de i et c team og så er de endt i ad hoc, mere eller mindre, den her assessment har været noget mere grundig.
Interviewer: Du nævnte også i starten at i havde svært ved at finde kvalificerede suppliers inden for nogle produktsegmenter, at der kun var en eller to store i markedet? Det synes jeg du sagde noget om i starten?

VP of R&D: jeg siger, at den her type produkter til firmaer findes der reelt kun to brands af i verden, Jabra og Plantronics, fordi der kun er to der sælger de her, så er der også meget lille fødekæde af firmaer, den her produkt findes der ti tyve af, og så er der også mange flere der har prøvet det af?

Interviewer: Så I har ikke noget problem med at finde kvalificerede ODM’er?

VP of R&D: Jo, det kan du sige, vi har hvert en udfordring i det

Interviewer: Hvad består den udfordring i?

VP of R&D: Altså du kan sige, vi diskuterede den en del, jeg tror en af udfordringerne det er, at hvis man kigger på det her kategorier, så er der ikke mange firmaer der i mange kategorier, Bose og beats er her oppe, Plantronix og Belkin er her, der ikke er mange leverandører der dækker så bredt som vi, både voice og music i så mange kategorier, de finder lige som en to kategorier og så vil de tjene alle deres penge der, og det vil sige at de ikke er så udsædvanligt at vi ender i en situation hvor Fujikon er rigtig stærke her, men aldrig været her over. For mange andre leverandører så er det måske okay, hvis de kun er her, så passer firmaet ligesom en ting, så vi forsøger at skulle strække, forsøger at finde lidt en kompromis og finde en leverandør som både er stærk nogen steder og kan lernes op i det andet og det tror jeg ingen vil skyde på længere

Interviewer: Ville det ikke gange give bedre at have forskellige ODMer til forskellig produkt kategorier, sådan at altså, at man ikke lægger alle sine æg i en kurv

VP of R&D: Det er rigtig nok, du kan bare sige, at der er tre, der er tre vinkler på det. Det er et hvor meget erfaring og viden ODMen bærer ind i den kategori, det vil være et plus, så er der to andre vinkler på det som trækker lidt den anden vej. Den er hvor lang tid tager det at få lært et samarbejde mellem to firmaer at få til at lykkedes

Interviewer: Er det ikke mest i joint development? Hvis det nu bare er off shelf? Så

VP of R&D: Det er faktisk også stadig i de andre, vi bruger relative meget tid og det gør vi meget tid

Interviewer: Er det audits?

VP of R&D: Nej, selvom de bemandet et projekt, så bemand vi det også første gang

Interviewer: Quality?

VP of R&D: For at dokumentere hvilke krav vi skal have og for at teste om de opfylder krav osv. Hvis opgaven bliver små nok så bliver det her håndholdte næsten det samme ud fra deres og vores side. Så det trækker lidt i den anden retning. Det tredje der trækker i den anden retning det er jo, hvis de ikke få business nok så får du d team, hvis du laver det her og har 4-5 leverandører, så bliver du også den lille fisk. På den måde er der også lidt. Kina har været rigtig business sultne og budt på alt osv. men der begynder også at komme en konsolidering, der begynder at komme altså ved Fujikon, de vil være det for ti firmaer de arbejder med. De siger ikke nej til den 11. Men der er en meget hår priorititet og er man oppe i det feld som er strategisk vigtigt for firmaet eller er man nede i det opportunity drevet, så hvis du kommer ned i de der små fisk kunder hos dem så er det et spørgsmål om tid, så er den ene eller anden part blevet utilfreds. Man kan blive fyret begge veje, vi kan blive fyret hvis vi ikke giver dem nye awards og de kan fyre os ved at hæve prisen med 30% så ved de godt hvad der sker, de gøre de ved at fremprovokerer den reaktion.
Interviewer: Jeg kom også til at tænke på når i så har de her suppliers gået i så ind hver eneste år og laver en audit, vi kan presse prisen, de burde blive bedre til det, så vores profit margins det kan vi rykke?

VP of R&D: Ja

Interviewer: Så i prøver hele tiden at at komme til at spare penge?

VP of R&D: Hvad kan man sige. Der kører månedlige møder, men de er sådan mere operationelle samarbejdsmøder, kører de så ikke kvartalsmæssige prisforhandlinger, tror jeg de gør, og så kører de halvårlige/helårlige mere man kan det strategisk i virkeligheden er det nok mere taktiske møder. Du kan kalde det management møde hvor deres management og vores management viser vigtigheden om det her samarbejde og deler noget viden. Det er i virkeligheden at holde, at holde begge partner op i det felt hvor de har attention og prioritet.

Interviewer: Ved du så hvor lang tid en kontrakt kører? Har i en standard kontrakt der f.eks. kører et år og så kan i forlænget den f.eks. med strategisk suppliers?

VP of R&D: Jeg vil tro, det skal du nok få mere fra Claus. Han sidder tættere på det. Jeg vil tro vi har en rammeaftale, men det er ikke, det der sådan er den konkrete kontrakt det er nede på projekt, så hvis vi er nede i priser og levering, det er nede i projekt og så videre. Præcis hvad der står i ramme aftalen det ved jeg ikke. På hvad niveau den er

Interviewer: Synes du at ODM outsourcing er den rette løsning for Jabra, eller kunne der være en mere optimal måde at fylde det her capacity hul?

VP of R&D: Jeg tror, hvad kan du sige, jeg tror den udfordring vi har, er vi har vores Kina udviklingsafdeling, så mange af dem der bruger det herinde de har ingen Kina udvikling og så bliver ODMen sat i forhold til. Det der er det vestlige alternativ har vi delt i to og man kan sige hvis volumen er stor nok, så er Xiamen faktisk bedre business end mange ODM. Det kan du sige, der mark up der er på en ODM, altså ODMen forsøger at tjene sine penge hjem på den der investering, så på den måde kan du sige at vores business er lille nok til at dele i to, så derfor har vi svært ved at nå et set up hvor de og vi bliver tilfredse, men det er ikke det samme, du kan sige, det er svært at have den der capacity buffer i Xiamen. Det er svært at få nok business i det sådan at ODMen opfatter det her som et stort og vigtigt samarbejde.

Interviewer: Har det medført nogle forandringer her da i startede med ODM outsourcing. Har du set medarbejde der er blevet fyret fordi der ikke er behov for dem mere eller andre opgaver i lige pludselig får

VP of R&D: Altså du kan du sige, det er skiftet over tid. I starten, i starten der forsøgte vi at gøre det i en selvstændig gruppe, der fik lidt hjælp i R&D organisation hvis der var noget de ikke havde forstand på, da vi så flyttede over i et mere formelt samarbejde, problemet var at de ikke altid vidste hvornår de skulle spørge om hjælp, og når det var gået galt så var det på et tidspunkt hvor det var svært at løse det. Vi har flyttet det fra hvor GN folk bad andre GN folk om hjælp til et mere formelt samarbejde hvor vi altid har et par ODM projekter. Og det er da en udfordring, du kan sige, vores ingeniøren har det fint med at lære Xiamen op for du kan sige, det har et formål og har et langsigtet perspektiv og det er inden for firmaet, hvis man har shoppet rundt mellem mange leverandører igennem tid, så kan vi så at sige hvad vi vil men fra management side, men de kan godt se at det her shopper rundt, så de kan godt se at gøre det her for femte gang er ikke så stor

Interviewer: Er du med til udvælgelsen af de her ODM der er strategiske?
VP of R&D: Det kan du godt sige. Ideelt set vil jeg vælge et område og sige det er her vi mangler og så må andre gå ud og finde dem. De her ting passer så meget sammen, når jeg har tegnet cirklen så giver det sig selv

Interviewer: Hvad baserer du det så på? Er det mere behov for mandskab, capacity whole

VP of R&D: Jeg kigger efter hvor vi har vi projekter der kommer, hvor kan vi nogenlunde have et konstant flow af projekter der kan holde dem tilfredse og holde det op i mod hvor har vi mulighed for at finde en leverandør som nogenlunde kan lave det vi har brug for, så vi ikke skal lave så meget, så der forsøger man at lede efter to cirkler der lapper lidt ind over hinanden

Interviewer: Har I været ude for noget samarbejde hvor de ODM som i f.eks. laver joint development med har haft mere teknologiske viden og så den viden, for så at skulle develop anden nummer to produkt, at I så havde behov for at få den viden tilbage, eller den viden de havde genereret i det produkt

VP of R&D: Altså igen, den viden de har Fujikon det er nok ikke på teknologi siden, den er på håndværksiden, hvordan integrerer man og tuner et produkt, men ja da havde praktisk erfaring med ANC produkter, som vi ikke havde,

Interviewer: Kunne i forstille jer selv at tage det f.eks. sætte det ud til Kina og producere det i jeres afdeling der?

VP of R&D: Ikke. Det er en evaluering vi laver, sidst jeg lavede den, der var svaret nej. Det var fordi, vores Kina afdeling fokuserer på nogle andre områder og grænser og trækker man dem ud over seks kategorier så bliver de ikke rigtig gode til noget, så det er også lidt et spørgsmål om at give folk få og svære opgaver i stedet for at kaste dem rundt mellem mange ting.

Interviewer: Så f.eks. den teknologi i ikke selv har viden på er noget i så vil være afhængige

VP of R&D: Vi har en afhængighed af Fujikon og vores backup ville være vores Danske team og det ville være en relativ dyr backup

Interviewer: Og de har den samme viden?

VP of R&D: Fujikon?

Interviewer: Nej, jeres danske team

VP of R&D: Ja, så på den måde risk mæssigt er vi håndteret, men det ville være en dyr løsning, normalt ville man lede efter en løsning der ville koste det samme og der forbereder man ikke Xiamen til at dække det nu for der har de andre udfordringer

Interviewer: Den dansk afdeling, hvor har de så fået den viden fra

VP of R&D: Det har de fået fra

Interviewer: Hvis de ved hvordan man udvikler en høre telefon, nu ved jeg ikke hvordan man gør overhovedet så jeg ikke nogen ide, men jeg kan forstille sig den teknologi, eller det der ligger i det, du bliver jo nødt til at have et eller andet de får viden fra, er det noget de har lært fra universitet
VP of R&D: I den forstand at, når vi vælger en leverandør så kigger vi på konkurrent produktet og vi skiller dem ad vi finder ud af hvad er op og ned i de tekniske løsninger og vi manager projektet

Interviewer: Altså reverse engineering?

VP of R&D: Det kan du godt sige, men i starten følger vi projekterne så tæt at reelt vi vil kunne køre en anden runde

Interviewer: Så I tager faktisk lidt den viden fra ODMerne kan man sige

VP of R&D: Ja, du kan sige vi gør det, men vi ville ikke føre det ud i livet fordi det ville være for dyrt at sætte de danske til at lave projektet, på den måde er der ikke rigtig et priskonkurrence alternative der kun et alternativ, hvis vi bliver så uvenner at vi ikke har andre løsninger

Interviewer: Har du flere spørgsmål? Så tror jeg faktisk det var det

VP of R&D: Holdt vi os nogenlunde inden for emnet?

Interviewer: Det gjorde vi, vi fik på alt det vi havde brug, det er også meget spændende at få et andet perspektiv på det end.
Interview with Director of Global Sourcing, August 1st 2013

Interviewer: Hvad er en strategisk supplier for jer?

Director of Global Sourcing: Så hvad det er for os?

Interviewer: Ja hvordan definerer i en strategisk supplier? Hvad laver den for jer? Er den f.eks. long-term eller integrerer i, udveksler i viden, møder?

Director of Global Sourcing: Ja. Altså strategisk supplier for os det er ihvertfald en preferred supplier dvs. en supplier hvor vi måske går ind og binder nogle produktkategorier op hvor vi siger vi har projekter indenfor de her kategorier, så er det som hovedregel den leverandør vil gaa ud og bede om tilbud på at køre de projekter. Og som udgangspunkt også hvor vi kører, vi har etableret en audit og hvordan kalder vi, en technical audit process hvor vi hver halve år tager ud og evaluerer leverandørerne på deres kompetencer og diskuterer hvilke på hvilke områder de skal forbedre sig, hvor vi så løbende prøver tale med dem om hvordan de skal blive bedre på bestemte områder, så det vil sige en eller anden langsigtet tilgang til at man også arbejder på og forbedre både samarbejdet men også de tekniske kundskaber hos den samarbejdspartner igen med henblik på at de måske kan kvalificeres til yderligere produktområder.

Interviewer: Hvilke segmenter af produkter tjener i flest penge på? Altså low-end, mid-end eller high-end?

Director of Global Sourcing: Det måske svært og skitsere det på den måde, altså den del af vores forretningsområder som absolut er mest lukrativ det er CC&O forretningsområdet.

Interviewer: Den hvor i også kun er to, hvor i næsten har et monopol på?

Director of Global Sourcing: Ja. Så på mobil der er der bestemte produktkategorier som er mere lukrative end andre. Altså man kan sige vores traditionelle mono BT produkter, der er det meget konkurrence præget og meget low-cost. Så er margenen typisk ikke meget stor men hvis man går over i musikprodukter og speakerphones så det er bedre forretning, lidt afhængig af hvor man er på kvalitets- og prisskalaen, så er det jo et spørgsmål om hvor man har mest volumen

Interviewer: Lader i de ODM har få f.eks. større profit margins per år eller begynder i at presse dem på prisen hvis f.eks. jeres strategic suppliers i ligger dem ud til flere gange?

Director of Global Sourcing: Vi presser altid på pris. Man kan diskutere selvfølgelig om det er den rigtige partnerskabstilgang men dem vi som hovedregel altid gør det er at vi benchmarker op imod vores, altså man kan sige der ikke nogen af de produkter vi laver hos eksterne som vi ikke selv kunne lave og det betyder også at vi har meget stor indsigt hvad komponentpriserne er for at lave et af de her produkter. Så som udgangspunkt alt hvad vi laver med en ODM det er på en eller anden måde sammenholdt med hvad det vil koste hvis vi selv skulle producere det.

Interviewer: Hvorfor bruger i så ikke Jeres produktion i Kina istedet for ODM. Hvorfor så ikke bare udvider der?

Director of Global Sourcing: Men det falder meget tilbage på finansieringsmodellen, hvis vi gør det med ODM partner, så vil vi oftest kunne få dem til at bære selve investeringerne af udviklingen af produktet. Og så betaler vi typisk for det... En produktpris er typisk op af at man har en bog der dækker alle de mekaniske og elektroniske arter og så har du en LOP fil, og i det her Labor, overhead og profit der ligger du typisk på en højere procentssats på et ODM project fordi at ODM leverandøren skal have dækket sine investeringer hjem.

Interviewer: Men kan det også være investeringer i f.eks. i nogle produktionsredskaber?
Director of Global Sourcing: Det kan det sagtens. Man kan sige at den side vi så spiller på det er jo så at vi ved at hvis vi selv tager investeringen i at udvikle et produkt så er det en up-front investering og hvis vi gør det med en ODM leverandør så det en amortiseret investering og det vi kigger ind i det er jo så hvis nu f.eks. hvis vi gør det selv så er det en relativ høj up-front investering som jo hvis vi laver sådan en NPV beregning der kan vi gå ind og lave en nulpunktsberegning for at se hvor mange skal vi så sælge før at vi tjener pengene hjem igen. Det vi gør det er vi så laver en beregning på ODM holdt op imod EMS og finder ud af hvad er break-even point for hvornår det kan betale sig at gøre det ene frem for det andet. Det gør vi nogen gange men det er lidt sådan nogle tanker der ligger bag.

Interviewer: Med jeres kontrakter, hvor lang tid skriver i dem for? Er det typisk et år eller?

Director of Global Sourcing: Typisk som jeg husker det to årlige kontrakter men hvor de som regel bare forlænges automatisk hvis man ikke gør yderligere.

Interviewer: Men er det så for strategic partners eller er det også for alle jeres ad hoc?

Director of Global Sourcing: De er de samme for strategic og ad hoc

Interviewer: Når skal finde en ODM tænker i så meget over at det skal være state of the art indenfor teknologi i finder eller finder i noget hvor i tænker det fint nok den her teknologi, det ikke top men den kan bruges

Director of Global Sourcing: Det et godt spørgsmål. Jeg vil sige det ligger det ikke nogen fast strategi for. Vi har både nogen ODMer hvor vi vælger dem... Under ODM skelner vi... skelner jeg ihvertfald imellem to forskellige typer. Det som vi kalder for design manufacturing services som i virkeligheden er en EMS virksomhed som har tilkøb sig en udviklingsafdeling. De har nødvendigvis ikke noget roadmap eller nogen produkter de selv udvikler men de har en udviklingsafdeling som godt kan gå ind og lave et BT produkt hvis du fortæller dem ud fra hvilke specifikationer de skal gøre det. Og så er det som den anden type af ODMer som har eget roadmap og som både sælger lad os sige speakers til os og til andre som de selv har udviklet og hvor de har relativ stor kategoriforståelse for hvad der sker indenfor speakersegmentet eller speakerphones segmentet eller det kan være ANC headsets. Så vi har lidt forskellige typer af leverandører og hvor hvad man kan sige lige nu har vi kvalificeret en af de her ODM virksomheder som en strategisk partner men det er velvivende at når vi laver ting med dem så skal vi selv specificere og vi skal altid selv levere designs. Hvor hvis vi vælger de der, den anden type ODM partner så vil man ofte kunne bede dem om og specificere og man vil også kunne bede dem om at komme med et design. Nogen gange bliver det lidt tilfældigt faktisk pånær den her ODM partner som vi har valgt, det er ikke tilfældigt det er et bevidst ønske om at kunne få en strukturert designpartner. Men det er som sådan ikke en rigtig ODM partner. For mange af de her ODM partner vi får det sker lidt ved at vi ser nogle i markedet som har et eller andet vi godt kunne tænke os og så er det egentlig mere det at de har kapabiliteterne der gør at vi vælger dem end det... altså man kan sige kapabiliteter på produktområde mere end at det er udfrå at vi går ind og laver en meget grundig analyse af deres egentlige kompetencer.

Interviewer: Vægter i et langt samarbejde højest eller vil i hellere shoppe lidt omkring forskellige ad hoc suppliers?

Director of Global Sourcing: Det kommer an på hvem du spørger. Der er to forgreninger her i huset som hvad kan man sige, hvor den ene mener at vi skal kunne vægtæ de lange samarbejder og hvor vi skal holde indenfor rammerne af det vores leverandører kan tilbyde og så er der den anden gren som siger at vores leverandør base er nød til at afspejle vores roadmap og de behov vi har i fremtiden på produkter. Og i og med vores tidsvindue for at teknologierne ændrer sig er relativ korte så kan det godt være svært at nå og udvikle leverandørerne i det tempo som teknologierne udvikler sig og så derfor ender det lidt nogen gange med at vi har... selvom vi siger vi gerne vil gå i retning af de langsigtede strategiske samarbejdsparterne så ser
vi hele tiden at de der ad hoc partnere kommer ind fordi de tilfældigvis står med den teknologi vi har brug for på det tidspunkt. Så sker der ofte det at vi vælger de der ad hoc partnere.

Interviewer: Tænker i over at når i sourcer kompetencer udenfor f.eks. til ANC head phones at det måske er et slags, det er kompetencer har i ikke bygget inde i firmaet? På længere sigt kunne man så overveje om de her kompetencer ryger ud af firmaet?

Director of Global Sourcing: Det tænker vi nogen gange over. Hvis du tager sådan noget som det her ANC så vil det hvis du spørger mig så vil jeg jo sige dte er ikke en kompetence som vi idag har bygget i huset og når vi vælger at købe det fra andre så er det ud fra en betragtning om at vi ihvertfald i første omgang har vurderet at den samarbejdspartner vi har på området ved mere om det end vi gør lige nu. Altså det ville være en relativ stor investering hvis vi skulle bringe os op på det samme videns niveau inden for den her specifikke teknologi. Før vi går det vil vi gerne se at det er noget vi faktisk kan sælge så det kan være sådan en first second wave approach hvor man siger at first wave der går vi ud og gør det via en partner hvis vi så kan se at det er produkt vi får succes med i markedet så kan vi godt finde på og gå ind og adapte teknologien efterfølgende med henblik på selv at kunne udvikle det også.

Interviewer: Director of Global Sourcing, er der mange suppliers der har adgang til ANC teknologien eller er det relativ få suppliers der kan tilbyde ANC teknologien?

Director of Global Sourcing: Der er mange leverandører som laver en eller anden for for ANC til musikprodukter men der ikke så mange i vores bog som laver det på højt niveau.

Interviewer: De produkter i producerer vil i så mene at den teknologi og design er forholdsvis generisk så det egentlig lidt er det samme som konkurrenterne også kunne komme frem med. Eller skiller jeres sig helt helt significant ud?

Director of Global Sourcing: Spørger du generelt Julie eller?

Interviewer: Ja generelt faktisk. Er det nemt for konkurrenter egentlig at kopiere jeres ting eller ha en ODM der egentlig producerer til mange forskellige der minder om hinanden?

Director of Global Sourcing: Indenfor BT produkter og indenfor musik produkter der er der mange konkurrenter der vil kunne lave noget som hvor en forbruger vil sandsynligvis ikke synes at der er nogen store forskel når du står i købsojeblikket. Vi vil så selvfølgelig påberåbe os at det vi kan det er vi kan lave noget i en anden kvalitet og også noget som måske lever op til nogen hvad kan man sige nogle helbredsmæssige kriterier og andre kriterier som andre leverandører ikke enten følger eller er opmærksom på. Grundlæggende mener vi jo at vi har en berettigelse fordi vi har en masse viden omkring de her ting og kan gøre nogle ting som andre ikke kan men jeg tror set med forbruger briller er jeg ikke sikker på andet end at der er masse af leverandører derude der kan gøre noget som forbrugerne vil opfatte som værende lige så godt det vi laver og måske et eller andet sted i bedre kvalitet. Men hvis du kigger på det rent teknologisk BT mæssigt og sådan noget så er det ved at være specielt på BT siden er det jo en standard teknologi idag. Det kan så være at vi mestre bedre og lave BT produkter hvor rækkevidden der er helt nogen af de andre produkter. Altså der er ingen tvivl om at vi har, vi er måske mere raffinerede omkring brugen af teknologien og har noget speciel know-how der men der er masser af firmaer der kan lave BT headsets idag.

Interviewer: Hvor meget tid kræver det i management tid og overse alle de her ODM projekter? Er det noget i bruger virkelig meget tid på eller?

Director of Global Sourcing: Vi bruger nok uforholdsmæssig meget tid på det men det er nok også fordi vi har ikke været succesfulde endnu omkring at få skabt en ordentlig struktur omkring det. Den måde vi driver
det på de mennesker vi har engageret i det, det er svært for vores interne organisation og være med i de her ODM projekter.

Interviewer: Investerer i i R&D i Jabra eller har i valgt at holde det konstant?

Director of Global Sourcing: Der investeres stadigvæk i R&D internt

Interviewer: Procentmæssigt ved du hvad det er?

Director of Global Sourcing: Nej det ved jeg faktisk ikke

Interviewer: Hvor mange joint development projekter har i?

Director of Global Sourcing: Dem har vi lige nu hvad har vi der, der har vi tror jef tre aktive projekter lige nu.

Interviewer: Og der er ANC headphones også et af dem?

Director of Global Sourcing: Ja

Interviewer: Hvor mange off-shelve projekter har i gang med og købe ind? altså hvor ODM har produceret det hele for jer?

Director of Global Sourcing: En lige nu

Interviewer: Og hvor mange projekter har i så hvor i bare sender specifikationer ud og så får et produkt tilbage uden sådan rigtig meget indblanding?

15.00

Director of Global Sourcing: Hvad har vi der, nu skal jeg lige tænke mig om. Der er vi ved at starte en op, en enkelt vil jeg nok sige.

Interviewer: Og I hvilken grad involveres top management i den her OMD process?

Director of Global Sourcing: relativt meget, men det er mest fordi vi stadig diskuterer meget, hvad skal man sige, strategisk niveau, hvordan vi skal blive bedre, hvordan vi øger vores evne til at gøre det på en ordentlig måde.

Interviewer: Hvor tit bruger I den samme ODM?

Director of Global Sourcing: Det gør vi relativt tit, vi skifter ikke særlig tit ud,

Interviewer: så i laver ofte gen-orderer hos dem?

Director of Global Sourcing: Ja, det gør vi.

Interviewer: Har i været ude for at konkurrenter har haft de samme produkter som jer?

Director of Global Sourcing: Altså du mener kopier af vores produkter?

Interviewer: ikke helt kopier, men sådan hvor I ved at det er den samme teknologi og designet er ikke så forskelligt sådan i faktisk konkurrere imod det samme
Director of Global Sourcing: I øjeblikket er vi i gang med, det off the shelf produkt vi har, faktisk en speaker, den tekniske platform i speakeeren er faktisk identisk med den vores leverandør laver for andre, hvor vi faktisk man kan sige, det yder design, der adskiller det fra konkurrent produkter.

Interviewer: Set I det som et problem?

Director of Global Sourcing: Vi har ikke gjort det

Interviewer: Det er ikke generelt for jeres produkter?

Director of Global Sourcing: Nej, det er det ikke, men jeg vil også sige, det er en udvikling der har fundet sted, hvis du har spurt mig for fem år siden, det vil aldrig ske, hvor man ligesom på visse produkt kategorier, hvor vi ser standardiseret eller hvor vi ser om det er et nyt marked som vi afprører, så er vi blevet mere modne til at at prøve af og sige, forbrugerne kan ikke skelne om det er den samme maskine der ligger inden under. Det som forbrugerne ser om de kan lide det design der er pakket rundt om.

Interviewer: Har nogle af Jeres ODMer deres eget brands, så de er i konkurrence med jer?

Director of Global Sourcing: Ja, en enkelt,

Interviewer: så i konkurrer faktisk med ODMen?

Director of Global Sourcing: Ja, delvist vil jeg sige, man kan sige på det tidspunkt hvor vi indledte samarbejde der var det ikke en konkurrent i den forstand det pris felt som den her samarbejdsartner opererede i med deres eget brand lå langt under hvor vi opererede, men det som så er sket i mellem tiden, det er at vi så siden han at vi er fået mere hen over at konkurere med low cost markeder så på den måde er vi så kommet hen og konkurrierer med hinanden.

Interviewer: Stiller i krav til løn og sikkerhed for de medarbejder, det er så ikke jeres medarbejder, men der er på ODM fabrikkerne?

Director of Global Sourcing: Det gør vi, vi stiller krav både til vores EMS og ODM samarbejder om at de følger vores guideline om CSR så, det er helt klart defineret hvad der er af forventninger og krav vi har.

Interviewer: Så I stiller også igennem det, krav til bæredygtighed?

Director of Global Sourcing: Bestemt, og også, at det er alt fra at gravide kvinder ikke må fyres og de selvfølgelig skal holde mindste lønninger og de skal være over 18 år og overholde miljøregler og alle mulige. Det er et større, i kan sagtens få en, i kan finde den på vores hjemmeside

Interviewer: Det prøver vi lige at kigge efter. Synes du mange af de produkter I lægger ud til ODM er de standardiseret?

18.58

Director of Global Sourcing: Nej, det synes jeg ikke nødvendigvis, hvad kan man, i udgangspunktet havde vi sagt til os selv at det skal være standard produkterne vi lagde ud til ODM, men vi har også den her regl om, hvis det er noget nyt vi og vi ikke kender marked og risikoen for vores vedkomne er investeringen er relativ stor der hvis der er en ODM partner tilgængelig der kan gøre det for os vælger vi at gå den vej for ligesom at begrænse vores eget risiko i investeringen og det gør lidt at nogle af de det der lidt mere high end produkter i virkeligheden bliver udviklet gennem ODM. Men det er også mange af de projekter der så ender med at væres joint development.
Interviewer: Så de standardiserede projekter bliver faktisk holdt inhouse.

Director of Global Sourcing: Ja, og det også lidt fordi at nogle af de standardiserede producter vi har så som vores bluetooth mono de kører i extreme store volumner og det hvor vi ligesom også selv kan skabe economy of scale omkring produktionen og indkøbet til at vi at forsøge at producere det til, når vi skal prøve tilsvarende på det ODM projekter, så er omkostningsmodellen i ODM for tung så bare at køre det profitabelt til at køre de der meget standardiserede løsninger.

Interviewer: Hvor meget får ODMen lov til at bestemme i det samarbejde, er detinde over f.eks. produktbeslutninger, kan de sige at de her specifikation de holder faktisk ikke? Vi synes vi skal gøre det sådan her i stedet for eller?

Director of Global Sourcing: Det kan de godt, men hvad hedder det. Det vil selvfølgelig altid være en diskussion med vores ingeniører, men det som vi oftest ser i det her projekter, det er at der et ping pong mellem ingeniører og ODMens ingeniører, hvor man ud fra en cost betragtning og performance betragtning taler sig til rette omkring hvordan produkterne skal designes, men det kan sagtens ske fra input fra begge sider. Typisk vil ODMen have et klart billede af hvordan produktet skal designes for at holde det kost target som vi har sat op for projektet.

21.11

Interviewer: Hvilke informationer deler i med jeres ODM suppliers? Er det sådan ja, at vi har de det her demand på det eller?

Director of Global Sourcing: Altså når vi starter projektet så fortæller vi dem typisk hvor meget forventer at sælge, og når vi når tætt på at tingene skal sættes i produktion så starter vi en process hvor vi hele tiden meddeler hvad vores forecast er på produktet for at de kan sætte produktionen op tilsvarende, der hvor der nogle gange kan være lidt begrænsninger i det delingen af viden er, hvis det bliver tekniske spørgsmål, hvis der er nogle elementer vi har valgt at designe herfra at de ikke nødvendigvis fortæller dem alle elementer af det til samarbejdspartneren.

Interviewer: Er i, i markeder hvor der er høj teknologisk usikkerhed?

Director of Global Sourcing: Hvordan definerer du markeder med høj teknologisk usikkerhed?

Interviewer: Høj teknologisk usikkerhed at teknologien ændrer sig meget hurtigt, sådan at i hele tiden skal nyskabe for at være med?

Director of Global Sourcing: Det har ændret sig, jeg vil sige, hvis du går 3-4-5 år tilbage på mobil så skulle man helst lancere en ny variant hver måned, for at kunne være med, men det har ændret sig for at med at antallet af spillere i markedet er blevet reduceret, så er der færre udbydere tilbage, af bluetooth headsets og det har lidt gjort at leve tiden på produkterne er blevet længere, vi ser ikke længere efterspørgselen i markedet hele tiden for at komme med noget nyt.

Interviewer: SÅ i vil måske sige at den teknologi i bruger er forholdsvis stabil?

Director of Global Sourcing: Den er relativ stabil ja. Jeg vil sige at de nye der kommer ind i bluetooth markedet det handler om at gøre det mindre og det er måske det hvor, men så igen når du så har gjort det mindre, så er det ikke sådan du skal komme med noget nyt seks måneder efter det er ligesom om at teknologien lige nu refineres den mere end bare handler om at komme med nye features. Jeg tror at lidt det der game er lidt overstået hvor det har handlet om at komme med nye features, fordi basal set så tror jeg
mere der er kommet en erkendelse af det er folk har brug for med et headset det er at, tage et kald skrue op og ned og så afbryde det igen når man er færdig.

23.35

Interviewer: Har i overvejet hvad jeres kerne kompetencer er?

Director of Global Sourcing: Ja, det har vi

Interviewer: Hvad er de så?

Director of Global Sourcing: Jamen, det er helt klart den akkustiske forståelse for hvad man bygger sådan nogle produkter og så er det, hvad kan man sige, på den mekaniske sige, der er det produkternes durability altså deres kvalitet, hvor meget kan de holde til, og så er der noget også omkring hvordan man altså, på hardware siden handler det rigtig meget om antenne performance og rækkevidde på proukterne og batteritid og sådan nogle ting.

Interviewer: Har i overvejet at det også kan være noget i organisationen at i er gode til at adapte til nye teknologier, eller nye produkter, er det forholdsvis fleksible?

Director of Global Sourcing: Hvis du spørger mig, vil jeg så sige at vi har en relativ tung organisation altså, jeg ved ikke hvor, det kan godt være vi er meget gode på det tekniske men det sådan skulle komme til forandringsparathed sådan generelt så synes jeg ikke det er noget vi er specielt gode til

Interviewer: Det var faktisk egentlig det vi havde. Så tusind tak.

24.56

Interviewer: Jeg har lige et spørgsmål omkring, jeg kan huske at du snakkede om at jeres Revo høretelf. Var det baseret på noget NFC?

Director of Global Sourcing: Ja, det er korrekt?

Interviewer: Er det forbindelsen mellem tlf. Og hørebøfferne man kører gennem NFC

Director of Global Sourcing: Nej, NFC står for near field communicaition og det du bruger det til, det er i virkeligheden at linke dit headset op til, er hvis du har din tlf. Der også understøttet NFC, så stedet for at du skal ind og lave pair device så kan du sådan set bare holde telefonen op mod headsettet og så finder de automatisk

Interviewer: Så det er ikke noget der truer bluetooth teknologien

Director of Global Sourcing: Nej overhovedet, det er mere et spørgsmål om, det vi jo ser er at det folk vil have det er simplicity altså, det der med at skulle ind og så findes 48 forskellige måder at linke et headset sammen med telefon på, det er der ikke nogen der kan overskue, det har drevet hele NFC tankegangen at man skulle bare holde dem op i mod hinanden og så skulle de kunne finde hinanden.

Director of Global Sourcing: Jeg tror julie, bare sådan hvad skal man sige, afklarende omkring adaptability, hvor flexible vi er, hvis vi kigger på det rent teknologisk på det, er vi relativt gode til at bare arbejde med nye teknologier. Når jeg siger det jeg, det er udfra en tankegang om vi en virksomhed lynhurtigt til at hvad kan man sige lave større strukturelle ændringer eller hvor det hele bare kører så jeg tror jeg nok vi er en relativ tung maskine
Interviewer: Det var også mest det andet at om i var gode til at omstille jer.

Director of Global Sourcing: Hvis du laver en analyse på os, så tror jeg udfra at vi har arbejdet på at få os til at vi ikke skal udvikle alting selv, og det har jeg sådan set arbejdet på de sidste 6-7 år her ude og det er bare ikke noget folk ønsker at forstå eller ser meningen med at vi gør.

Interviewer: tror du at det er fordi organisationen er for stor og det er svært at trænge igennem til folk eller det bare fordi det er ingeniører der er stædige

Director of Global Sourcing: Altså jeg tror der er rigtig meget not invented here. I den her organisationer og det tror jeg generelt er et problem for danske ingeniører virksomheder, som jeg siger til nogle af mine venner, hvis du bare kigger på alt det der foregår i DSB der foregår lige nu med at vi skal udvikle vores eget billetsystem havde jeg nærmest sagt, altså det virke fuldstændig åndet når man ved hvor mange storbyer der rundt omkring i verden har lign. Systemer op og køre hvorfor skal vi så lave vores eget for bunden og jeg tror det et eller andet sted hænger sammen med, at vi har en eller anden indgroet kultur her i samfundet, at hvis det ikke er en dansker der står bag udvikle så er der nok et eller andet galt med det, det møder man også rigtig meget her,

Interviewer: Det kan du godt have ret i

Director of Global Sourcing: Jeg tror det er en del af vores kultur, det ikke en heldig kultur, men det er også svært at lave om på.