Knowledge and focus, a condition for continuing sales growth

- *Sales Product Management as an intermediary*

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Abstract

Title: Knowledge and focus, a condition for continuing sales growth
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Problem discussion: To be competitive in a changeable environment, as the video surveillance market, in a time when the company and the market grow with almost 40% yearly, the sales organization must be well trimmed and effective. Knowledge about customers' needs and what makes success are essential parts of the progress. Sales Product Management (Sales PM) is a new group at Axis with the main task to support local sales offices around the world in their work with different sales projects. Because of the number of ongoing projects Sales PM needs to be able to screen among these and focus on those where their help will be most valuable for the company. At the same time they have to know which kind of support their sales offices want and need. The knowledge assembled at the sales offices is important to be aware of the end customers' demands, and to help the whole organization focus the support and prioritize projects.

Aspects connected to information and knowledge gathering, storing and use of it are a highly relevant topic in today's business environment. How could the handling be done, and to

what extent could the information support the decisions made within the company?

Stated problem: How can Axis' existing sales and project process be developed in order to support the organization with knowledge and information required for growth?

Purpose: The purpose is two-folded;

1. *To investigate information and knowledge related aspects influencing the possibilities for growth of a company at an expanding market.*

The situation will be exemplified by using Axis as case study, which leads to the second part of the purpose;

2. *To identify and evaluate Sales PM's role and function concerning their importance in Axis ongoing expansion and part in the work with information and knowledge transference.*

The main issue in the thesis, connected to the purposes, will be to demonstrate the link between knowledge and growth.

Method: Inductive as well as a deductive approach have been predominant in the working process, i.e. an abductive view. Interviews, surveys and case studies have been a vital source for primary data, but also secondary sources in form of literature have been fundamental in the thesis.

Conclusions: The study results in a number of practical action proposals for Axis, but also in a more general conclusion. The theoretical issue, about the link between knowledge and growth in a business environment has led to cross-fertilization between Network theory and Resource Based View. The study shows a clear connection between the effort with knowledge management and the opportunity to more efficiently use the presumption to grow on the current market. An important part in this is to work in a structured way and to gain use of gathered information and knowledge. A part in this will be to prioritize and focus the support to the most important projects, which in the study is visualized through a model.

Key words: Axis Communications AB, Human Computer Interaction, Knowledge Management, Network theory, Resource Based View, support

Acknowledgement

This master thesis constitutes one of the finishing and final assignments at the Technology Managementprograme at Lund University and is a part of the authors' degrees in Business and Administration respective Electrical Engineering. The insight and participation we have been offered at Axis has been valuable and has brought experience also in access of the master thesis framework. The process associated with the work has been both challenging and inspirational.

First of all we would like to thank our supervisors, Bo Gabrielsson (Axis), Fredrik Häglund (EHL), Fredrik Nilsson (LTH). Without their guidance, support and input, the work would have been much more difficult. Thanks also to Peter Friberg, Kajsa Johannesson, Wilfried Rakow who together with Bo have initiated the project and contributed with opinions and relevant information of great value to the subject. We would further like to thank all other participants, interviewees and contacted for their vital input to our study.

Lund, May 9th 2007

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Abbreviations

ADP Application Development Partner

APAC Asia Pacific. One of the three regions Axis is working with.

CRM Def. 1: The theory of Customer Relationship Management (CRM).

Def. 2: The name of the database system within Axis with designation to support the sale structure in the organization. The system is named CRM, since it is based on the thoughts of the CRM theory. In order to reduce the risk for confusion in the report, Axis data base system for projects will be referred as pCRM. See also definition below.

pCRM The part of Axis CRM-system dedicated to support projects, i.e more extensive sells. The system collects information mainly from the major projects around the world. Constitutes an important input for prognosis work and support for the sale organization.

CST Customer Solution Tool. Computer system for the support department to logging questions concerning support.

DACH Germany, Austria and Switzerland. A part in EMEA.

EHL School of Economics and Management, Lund University.

EMEA Europe, Middle East and Africa. One of three regions Axis is working with.

HCI Human Computer Interaction

HQ Headquarters

Inside Axis intranet.

KM Knowledge Management

LTH Lund Institute of Technology

RBV Resource Based View

Sales PM Sales Product Management, occasionally mentioned as SPM as an acronym. A special group within Axis organization with responsibility to support the sales organization, see also chapter 1.3.

SI System Integrator

VRIO Evaluation concerning the magnitude of a company's resources from the perspectives; Valuable, Rare, Inimitable and Organized. Connected to the RBV-theory.

1 Introduction

The first chapter gives a presentation where the theoretical and practical issues are stated. Further on is Axis placed in a market context as well as the master thesis in relation to the company specific situation. Problem area, delimitation and purpose are some fundamental parts discussed in the first chapter of the master thesis, serving as a foundation for coming parts.

1.1 Prologue

Today, with a booming economy in Europe, many companies experience increased business opportunities[1]. The possibilities to grow, both organic and through acquisition, have enlightened the importance of expanding in a controlled form. Growth is in general connected to a number of related aspects, like introducing new products or services on the market, and expanding to new regions[2]. Although, other parameters, like profitability and increased volume are influencing the potential growth[3].

To exemplify and motivate the theoretical and practical discussion, a case company will be used in the study. A middle sized and expanding company will illustrate the situation concerning how to manage a high growth rate and to maintain as an effective organization. Primarily concerning sharing of knowledge and resources within the market environment.

1.2 Trade background

Axis Communications AB is operating in a high-tech market and mainly within the segments of IP-based video surveillance. Axis cameras are of high quality, offering a supreme image standard and are user friendly. The cameras can be monitored from distance over network and are able to install and use without direct connection to a computer at the location of the surveillance.

The digital techniques within the surveillance network camera market are continuously taking market share from the analogue ditto[4]. The market for network video surveillance, on world bases, increased by over 40% during 2006. The growth

[1] www.affarsvarlden.se, 2007.04.23
[2] www.expowera.se, 2007.04.13
[3] Skärvad, P-H., *et al* (2000) pp. 361-362
[4] www.jpfreeman.com, 2007.03.22

rate predicts continuing for the digital side, and even improves further, for many years ahead.[5]

Axis more or less created the market for network cameras and has gone from being the first mover to market leader in a surrounding with many upcoming competitors[6]. Despite the impressive market growth, the share of digital network cameras are expected to be only one third of the total amount delivered cameras in 2010[7]. Thus, there are great opportunities for Axis as well as other players on the digital market arena. Therefore it is of importance for Axis to gain advantage from their history as market innovator and first mover, in order to maintain the position as market leader.

1.3 Axis and Sales PM

With the market direction pointed out, Axis has since year 2006 the aim to grow five times in revenue, together with a three times increased staff force, all in five years[8]. This expansive and intensive goal demands that competence can be transferred and that people more easily can be integrated as well as taught rapidly or replaced[9].

Sales PM is a rather newly developed and unitized group of experts, established autumn 2006. The group originates from internal ideas at HQ to offer a better sales support and at request from sales offices to get a natural part to contact when initial product questions appears[10]. Sales PM consists of representatives from different sections focusing on supporting solutions from a long-term technical and sales perspective[11]. At the moment the group consists of five experts with various background within the organization, but all however with some kind of relation to sales and contacts with local sales offices around the world. The group can support with own or others knowledge and information ranging from technical sales support, to advices concerning system specifications and smaller customization of products or packaging to specific customer requirements.[12]

Four of the team objectives for Sales PM are[13];

- generating more business.
- make more complete solutions available with and around Axis products together with partners.
- feed back information from market to product development and marketing, the later focusing on sale tools.
- extend internal knowledge about applications and solutions.

[5] www.imsresearch.com, 2007.03.22
[6] Interview, Mr Friberg, P., Axis, 2007.03.19
[7] www.imsresearch.com, 2007.03.22
[8] KAM meeting Axis, 2007.02.14, interview, Mr Ekerot, M., Axis, 2007.03.09
[9] Interview, Mr Höllering, M., Axis, 2007.03.08
[10] Interview, Mr Gabrielsson, B., Axis, 2007.03.08
[11] Interview, Mr Friberg, P., Axis, 2007.03.01
[12] Intranet II, 2007.02.23, Group meeting Sales PM, Axis, 2006.12.20
[13] Intranet I, 2007.01.23

Some of the groups working tasks are to function[14];

- as internal technical consultants with business evaluation, technical issues and production processes.
- as a part for sales offices to contact and communicate with HQ in Lund.
- as information and knowledge base, developing and uphold systems to gather and make it available to the customers, i.e. sales offices.

Sales PM's directions from their managers are deliberately wide and flexible to make them able to support different issues[15]. A substantial part of Axis sales consist of different kinds of projects. An exact definition for projects is hard to find and differs also in some extent from region to region. A project could consist of anything from a big installation at an airport or bank to a smaller, but still strategic deal, needing unique solutions. The characteristic of a project, is a deal that needs special effort from the sales personal and a deal that differ from the daily flow of sales[16]. To be able to realize relevant kind of support the information flows need to be well defined. The channels for communication of knowledge and information between concerned parties have to be clear. The form of information that the sales offices consider to be important and that is not communicated is relevant for Sales PM. Further on, the willingness and incentive to spread, save and use the information has to be distinguished. Aspects all relevant considering the oncoming expansion, where the organization will grow and risks to be more complex.[17] The intention is that not all contact or communication should flow through Sales PM, only when the ordinary channels are not sufficient[18].

While Sales PM is the project sponsor and job initiator the starting point and view will be from the group and their related work description, together with the theoretical and more general issue.

1.4 Problem discussion and issues

Knowledge and information handling are of great importance in today's business and also a prerequisite to be competitive to others not working with these questions[19]. The importance to use knowledge within the firm effectively is growing[20]. How knowledge can be transformed and used, but also to what extent it can give advantages are an important matter to gain competitive advantages[21]. It also fills an essential role to develop support for daily decisions connected to the strategic directions concerning the demand forecast and the need of support. The form in

[14] Intranet I, 2007.01.23
[15] Interview, Mr Rakow, W., Axis, 2007.02.28
[16] Survey, 2003.03.21
[17] Group meeting Sales PM, Axis, 2007.01.10
[18] Interview, Mr Friberg, P., Axis, 2007.03.01
[19] Hoffman, J., *et al* (2005) p. 93
[20] Prusak, L., *et al* (2006) pp. 4-7
[21] Mårtensson, M. (2001) p. 5

which information is transferred could in many cases be seen as internal routines[22]. These create the opportunity to in a more structured way incorporate information in the organization, but the obstacle is that the information often is in form of tacit knowledge[23]. Therefore it is hard to transform information and experiences to other or to communicate new directives in an effective way[24]. In organizations, especially those with a more dynamic structure, there can be some barriers to the information and knowledge transference. At first, there are the psychological aspects, for example a lack of willingness to share their own information. Secondly, it can be more of a practical issue, with shortage of effective ways of communicating.[25] There is also an interface problem when parameters are estimated without specific guidelines. Facts inserted in a database by one part will later be picked out by another, which easily can lead to incorrect interpretations. Transference of knowledge will according to some studies have two major purposes; increasing the probability to develop knowledge and to reduce the dependence on a few individuals with unique knowledge[26]. Well functioning internal tools and structures are of great importance in order to find, store and reuse information. As well as to create a surrounding supporting knowledge and information incorporation, regardless purpose. How these shall be designed, and the work with inserting data from an implementing perspective, are relevant matters worth taking into consideration.

Today's use of the pCRM-system aims partly to collect information about projects that are won. All other projects, the one lost to competitors or dismissed for other reasons are not documented or followed up through pCRM[27]. Sales PMs work has to be seen in a long-term perspective in order to accumulate an information base and creating adequate channels for communication[28]. As it looks today there can be situations with lost business opportunities, which depending on an experienced lack of professionalism from Axis side, probably caused by the fact that they occasionally are forced to "reinvent the wheel"[29].

A number of correlating aspects appears when working with the issue in general, how should a tool for knowledge preserving be developed, and how can it be integrated and rolled out in the organization? This exemplifies two major questions and important aspects. There is no use of having a more or less perfect tool if no one is using it[30]. Even if the willingness is obvious, primarily in the Sales PM group but also at the sales offices, to structure and managing the information flows in order to save and communicate gathered experiences, there is still much to be done. Today some of

[22] Nygaard, C. *et al* (2002) p. 51
[23] Ibid p. 56
[24] Stein, J. (1996) pp. 21-22
[25] Dalsgaard, L. *et al* (1998) pp. 181-185
[26] Stein, J. (1996) p. 117
[27] Group meeting Sales PM, Axis, 2007.01.25, interview, Mr Gabrielsson, B., Axis, 2007.01.24
[28] Interview, Mr Gabrielsson, B., Axis, 2007.03.08
[29] Group meeting, Sales PM, Axis, 2007.03.13
[30] Interview, Mr Haake, M., LTH, 2007.04.02

these thoughts are illustrated at a special website at Inside, including a blogg and information delivered through pCRM.

Aspects of this characteristics has not been prioritized within the organization before, focus were much more often to product development. Thus it is now on the agenda after more closely cooperation with system integrators (SI) and hence a step closer to the end customer[31].

The identified areas, from Sales PM perspective, and also from an even wider perspective which are of interest to investigate and develop are following:

- Creating better conditions for input to the forecasts and prognosis work.
- Gathering and maintaining information and knowledge from sales organization in order to give adequate support and using the valuable advantages of earned experiences.
- Increasing the use of a homogenous and functioning business system for sales and project processes.
- Enabling improved support to customer and sell support in different shapes directly to customer (SI) or the end user in some case.
- Identifying the internal information flows and knowledge transference.

The work and thoughts concerning the notions above are already initiated and are on the Sales PM's agenda, but there is still much to do while it is just in a starting phase. Today there is an experienced absence of information and knowledge flows in the sales process in the project part. Sales PM has problem to know what kind of support that is needed, and the sales offices are unaware of what support they can get. The shortage of feedback will do that many projects at the sales offices are seen as new ones, without the knowledge from prior and similar projects made by other. Due to this issue-background, the following major problem and purpose have been developed.

1.4.1 Stated problem

How can Axis existing sales and project process be developed in order to support the organization with knowledge and information required for growth?

1.4.2 Purpose

The purpose is two-folded;

> *1. To investigate information and knowledge related aspects influencing the possibilities for growth of a company at an expanding market.*

[31] Interview, Mr Friberg, P., Axis, 2007.03.19, interview, Mr Gabrielsson, B., Axis, 2007.03.08

The situation will be exemplified by using Axis as case study, which leads to the second part of the purpose;

> 2. *To identify and evaluate Sales PM's role and function concerning their importance in Axis ongoing expansion and part in the work with information and knowledge transference.*

The main issue in the thesis, connected to the purposes, will be to demonstrate the link between knowledge and growth. Axis, as the case study object, will be viewed from the perspective of the Sales PM-objectives concerning the project process within sales.

1.5 Focus and delimitation

The practical focus in this master thesis, with starting point from the stated problem and the purpose, are the following: Give Sales PM a better view about ongoing projects and in what extent support is needed in the sales offices. This trough studying the sales offices and Sales PM to find relevant parameters regarding weight on projects, and what demand there is from the sales offices about support, which can be stored centralized in the organization. The scope will be delimitated to the product segment network cameras in Axis product portfolio.

There is always a trade-off between the different stakeholders' demands, expectations and directions, even so in this master thesis. An important and fundamental part is the academic contribution from an identified theoretical problematization. This together with a more hands-on approach where the thesis will contribute with practical proposals, reflections and guidelines to Axis. The master thesis will consequently include a theoretical contribution, a technical touch, practical potentials to improve the situation and quantification. All in order to give a wide, as well as deep view of the situation.

The geographical arena examined will primarily be delimited to Europe. This due to the following facts; it is one part of Axis three regional business areas[32]. It is an internal rather similar market structure and culture considering sells and project characteristics[33]. The geographical nearness also makes it, from a practical view, easier to investigate.

Since the study partly involves confidential information, only aggregated data will be presented in the report in order to not reveal valuable aspects for Axis outside the organization.

[32] Group meeting Sales PM, Axis, 2007.03.19
[33] Interview, Mr Roobol, E., Axis, 2007.02.13

1.5.1 Target group

The main audience for this master thesis is primarily stakeholders from Axis and Technology Management, Lund University. The thesis will also be of interest for teachers and students at relevant departments in the academic world. The final target groups, even though more peripheral, are other companies who have identified similar problems. Even if the report possesses a specific and defined problem it is possible to apply thoughts to other companies, this because of knowledge and information issues connected to growth are to be seen as quite generically and common matters.

1.5.2 Reference system

Sources in the text will be referred to by footnotes according to the Oxford system[34]. Footnotes before full stop refers to present sentence and a footnote after full stop refer to the whole previous part[35]. Footnote can also be directly connected to prior word or expression. References within the report, cross-references, are made by parenthesis after the current section. All major sources used, i.e. not informal meetings in corridors and so on, are presented in the ending reference list. Due to security reasons for Axis, sources from their intranet and other secret internal material will only be referred to in a non-explicit way.

1.6 Essential definitions

Bellow some of the central and most frequently used terms in following text will be explained to create a common frame and stringency for the reader.

Customer	Resellers and system integrators are seen as the customer in Axis value chain (see figure 4.2). If the end users are intended in the text it will be explained explicit.
Experience	Will in this thesis be integrated in the notion knowledge and are referring to skills and understanding gathered from prior situations. Individual experiences are closely related to tacit knowledge.
Effectiveness	To do the right things. Situation, from an external perspective, related to the firms ability to meet demands from its customers[36].
Efficiency	To do things right. Connected to quality aspects and the ratio of the input and the related output.

[34] Pettersson, G. (1997) p. 17
[35] Eriksson, L., *et al* (1997) p. 140
[36] Grønhaug, K., *et al* (1992) p. 438

Information	Adds knowledge to the receiver by processing, manipulating and organizing data. It is the context in which data is taken and the concept is closely related to notions like communication, instruction and knowledge. Information will in this case represent statements concerning contacts, order volumes and gathered understanding about customers and specific situations.
Knowledge	Builds on a combination of information, experience and context. Information is one representation of knowledge, but information itself is not knowledge. Knowledge occurs in both explicit and tacit form and could be seen as a production from the raw material – information.
Prioritization	The ability to sort and decide which alternative is most favourable considering the relevant parameters, for example could it be based on time constraints, potential profitability or benefit of a specific project. Prioritization as a strategy refers to getting maximal effort and results from a company or team.
Process	The use of resources and information to transform the output contra input. Induce in results that mean some form of change connected to a time point.
Project sales	Product sales not connected to the ordinary "daily flow" of sales. Orders, which are dedicated to a specific installation or with an order value exceeding a certain limit. It is also usually connected with special requirements regarding solution, price and in some cases minor customizations.

Axis Communications AB will be referred to as just Axis in this master thesis, if the company in other constellation is intended, it will be enlightened explicit.

1.7 Company background

Axis was founded in 1984 by two students, Mikael Karlsson and Martin Gren. Mikael was recently graduated at this time and Martin was still studying. They had both an interest and saw great opportunities in the world of network connectivity, when initially starting their business in Martin's student room.[37] Axis now has offices in 17 different countries and is

Key ratios, Axis Communications AB		
The group, SEK million	2006	2005
Net sales	1 202	895
Operating profit	223	128
Profit before tax	222	128
Profit after tax	157	91
Earnings per share, SEK	2.28	1.32

Table 1.1 Key ratios.

[37] www.axis.com, 2007.02.21a

in cooperation with distributors, systems integrators and OEM partners in 70 countries. Markets outside Sweden holds more than 95% of sales[38], the organization has about 450 employees[39] and a net-turnover reaching 1200 MSEK last year (2006)[40]. See also table 1.1.

Focus during the company's whole lifetime has been products that are adding value to the end-users network and making it smarter, but the products have varied a lot over time[41]. The first product Axis supplied was protocol converters, which enabled the possibility for users of IBM computers to use other printers than IBM:s, which at the time was very expensive[42]. The protocol converters lived longer than its estimated lifetime and a natural step further was printer servers.[43] These are used to connect a printer to a network so all users of the network could reach the same printer. In 1996 the network camera was introduced, which today is Axis main product.[44] The product portfolio is separated into two parts. One that concentrates on professional network video solutions for remote monitoring, security surveillance and broadcasting and one provide products for network printing and document handling. Today's portfolio of products has made Axis the global market leader in network video products and the leading independent provider of printer servers.[45]

As from the beginning Axis continues to be a connectivity company providing specialized hardware and software solutions. These solutions enable people with different operating systems to access all kinds of resources of a network.[46] To allow security and rapidly connections to different networks, Axis bases their products on in-house developed chip technology. These chips are also sold to third part.[47] Since the late 1990:s Axis provides solutions for wireless technologies, which oblige the growing importance of network accessibility.[48] Axis has an aspiration to work closer with the system integrators, mostly to be able to offer a total solution for a specific project, customer or series of installations, but also to be able to get knowledge from and about the process and the end-customer.[49] Axis sales process exclusively goes through distributors, which only gives a limited contact to the end-customer. Services and installations are as well made by the third part, the system integrators, which make a further gap in the information flow between producer and utilizer.[50] See figure 4.2.

[38] www.axis.com, 2007.02.21b
[39] Axis Annual Report 2006, p.7
[40] www.axis.com, 2007.02.28
[41] www.axis.com, 2007.02.21a
[42] Eneroth, K. (1997) p. 65
[43] Ibid p. 81
[44] www.axis.com, 2007.02.21a
[45] www.axis.com, 2007.02.21b
[46] www.axis.com, 2007.02.21a
[47] www.axis.com, 2007.02.21b
[48] www.axis.com, 2007.02.21a
[49] Interview, Mr Friberg, P., Axis, 2007.01.10
[50] Interview, Mr Juhlin, F., Axis, 2006.09.07

1.8 Disposition and readers' guide

The disposition in the report will follow the illustrating figure beside (figure 1.1) to guide the reader, create an overview and to further support the governing idea in the text. The different chapters will also briefly be presented below.

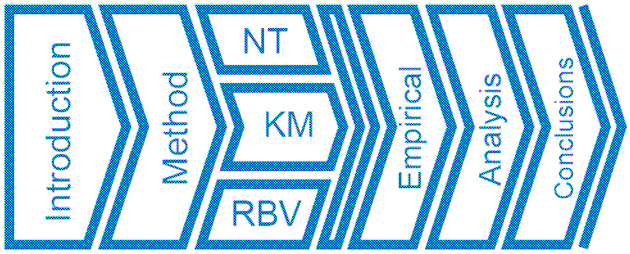
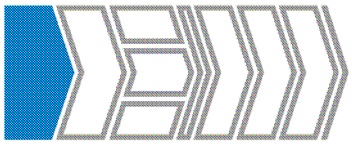


Figure 1.1 Readers' guide.

Chapter 1, Introduction



The background, framework and base for the master thesis, including vital aspects like problem discussion, purpose and focus.

Chapter 2, Method

Statements of how the research is conducted, the approach to aspects like influence from interviewers, validity and reliability regarding the empirical information. Importance considering the design of the project investigation and following outcome as analysis and conclusions.

Chapter 3, Theory

In the thesis will three main theories be used as the foundation in the coming analysis and are all presented in this chapter. Also some others, not at the same magnitude but still highly relevant, are stated in this section.

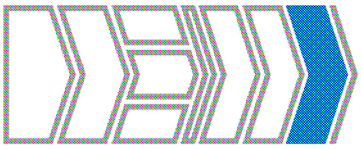
Chapter 4, Empirical

The data collected will be presented chronological, but also more integrated in some parts. A large amount of data has been collected, but only the direct relevant to this project will be presented.

Chapter 5, Analysis

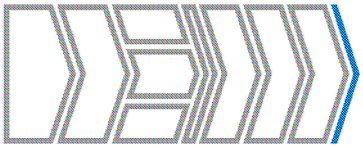
A discussion about the situation, which takes off from presented parts above, and aims to give answers to the stated problem area and secure fulfilment of the purpose.

Chapter 6, Conclusions



To sum up the whole master thesis and presenting the recommendations as well as findings according to the goals, stated problematization and purpose.

Chapter 7, Suggestions for further research



When conducting a project of this size narrowing the scope is necessary in order to give a desired stringency and depth. Many discoveries and thoughts from the working process are relevant and interesting, but runs outside the framework of this master thesis. These are potential areas for further investigations.

2 Method

The methods used will be presented, as well as how the research phases have been conducted. All in order to give the reader a view of how the work has been structured, as well as how it may influence forthcoming chapters. A reflection about chosen methods is also a part of the chapter.

2.1 Introduction

Method states which way that could be used for mapping the reality[51]. This master thesis is visually structured in well-recognized academic composition, but also by the methodological initial process with development of problem discussion and study design[52]. The work with identifying a problem area is to be seen as a more or less continuous process during the whole project parallel to theory work, empirical findings and analysis[53]. The theoretical issue and contribution and to Axis interesting aspects have in general been developed under the initial phase. But also iterative during the whole study and continuously syntonized to the supervisors representing the university as well as Axis. All in order to deliver a practical relevant and theoretical interesting master thesis. The intention and expectation, in line with the stated problem and purposes, is that the findings and recommendations will be implemented in some way or serve as a foundation for further research or action in the subject at Axis.

2.2 Research approach

There was no specific and clear issue given from the beginning, more a general and wide problem situation. With this background, the topical problem area was identified together with representatives from Axis. Qualitative data is usually associated with an inductive approach, so also in this case. This has been the focus during the initial phase, finding the real issue and connected aspects. These have in turn been applied to a theoretical framework, in a deductive way, in order to evaluate and structure the situation. It has also resulted in an own developed model for visualization of the projects' characteristics. The two philosophies of method have been parallel in some way. By first using an inductive approach, and then a deductive of some form, it can be stated that an abductive view[54], a mixture of inductive and deductive approach, has been the predominant. By using case study as a tool to observe the reality, contextual

[51] Jacobsen, D. (2002) p. 34
[52] *Passim* Rienecker, L., *et al* (2002), Petterson, G. (1997)
[53] Jacobsen, D. (2002) p. 73
[54] Alvesson, M., *et al* (1994) p. 42

experiences[55] was obtained, which are of importance for upcoming analysis and fulfilment of the given purpose.

One of the defined situations is to identify and investigate an experienced lack of information in the organization and a correlated data flow. With this background a qualitative working approach is adequate as the main technique, while it is more open for new impressions, gives possibility for flexibility and aims to explore[56], together with the inductive and open way for securing high rate of validity[57]. In addition quantitative data, howsoever in minor extent, is used to further support the analysis and to quantify some aspects. It will mostly be an intensive design in the thesis, which in turn secures a high internal validity[58] that is important considering the guidelines given from Axis. Regardless the approach that is topically, pros and cons associated with them must be taken into consideration. More about that later in chapter 2.5 regarding method reflections. All meetings, interviews and conversations have been written down and documented in separate documents. These have in turn been linked from our project site and web-based diary to structure the information and to easily have a quick access. The continuously administrative work did also bring the positive effect that the information and findings have been reflected and discussed along with the data gathering. The development of a relevant model, based on a combination of existing theories and the authors' experiences, constitutes another of the elements in this master thesis. It is also a vital part in the inductive approach.

2.2.1 Case study

The thesis has characteristics from the case study approach with investigation of a delimit system and qualitative work in a process[59]. Also the fact that the empiric investigations and case study include a combination of data collection methods, i.e. observations, interviews and questionnaires in form of surveys[60]. The restricted system, in this master thesis in form of Axis and delimitations within the organization (chapter 1.5 *Delimitation and focus*), has made it possible to see more and deeper at belonging variables[61]. While just studying one company it can be more closely looked at and also from different dimensions[62]. Conclusions can be drawn from case studies, but the question is often how generalizable these are. However can the case studies give a hint and a direction, and mostly be seen as at least analytical generalizable.[63] To strengthen the discussion, and to make comparison possible to trades dealing with similar issues, benchmarks are used.

[55] Merriam, S. (2006) pp. 28-29
[56] Jacobsen, D. (2002) p. 135
[57] Ibid p. 140
[58] Ibid pp. 102-103
[59] Merriam, S. (2006) pp. 22-26
[60] Eisenhart, K. (1989) pp. 534-535
[61] Andersen, I. (1998) p. 129
[62] Lundahl, U., *et al* (1999) p. 51
[63] Ibid pp. 194-195

The reasons for using Axis as the case company are severalfold. The authors had good contacts to some Axis representatives after a project conducted autumn semester 2006. Axis is also a very offensive and fast growing company, well suited to this study. Further on can Axis be seen as a representative company concerning the current topic while Axis is working in a dynamic market surrounding, is an innovative company and finally is knowledge intensive.

2.3 Practical aspects

The main part of the time for the master thesis process was spent at the Axis head quarter in Lund, where the authors have been based from January until May 2007. The nearness to many key-persons and other employees has enabled formal as well as informal meetings and spontaneous as well as planed sessions. The authors own network, and network given from the tutor Bo Gabrielsson, have been an important and valuable source. As mentioned above, the authors have done a skunk work project with five other Technology Management students at Axis. Through that project a good foundation has been gained as well as a picture and knowledge about the company and its overall organization. The opportunity was also given to the authors during spring semester to visit workshops during conferences and one of Axis daughter companies, a sales office in Munich, Germany. The visit was an important source of data collection and a possibility to see the work and situations more practically. The fact that the major part of the time dedicated to this master thesis has been spent at the Axis HQ has given many opportunities to observe the activity and business culture. The risk connected, to be affected and partial, has been in the mindset. The impact can be seen as small, due to the awareness, but also that Axis explicit has welcomed an external view at the situation.

2.3.1 Structure and views

The work with creating a picture of the situation continued early spring semester 2007. During this period the contacts were primarily open interviews. Gradually more and more focused towards the theoretical aspects parallel to creating a foundation and aim for coming interviews and contacts. Many parts in the study have been in form of an iterative approach were different parts have simultaneous been worked with.

The technical side of the project is the interaction between human and technique, which is a highly relevant and practical part in the issues discussed in the thesis. The theoretical issue is how the three current main theories and Human Computer Interaction are connected to each other in present situation. This internally in the company and at the dynamic market situation, concerning the link between knowledge and growth.

2.3.2 Primary data

There is a predominant and a conscious number of primary sources making the base in the empirical data collection. This because of interviews, observations, and

questionnaires conduct a central part[64]. The working methods, including observation and interviews, have resulted in a data collection with a substantial amount of primary information. An advantage with primary sources is that it is customized to the specific task[65]. Interviews have also been conducted outside Axis, to be used as benchmark and to get input and possibilities to discuss relevant theories. An electronic survey has been performed with a number of representatives within Axis sales organization and local offices around the world, even though focus is on Europe.

2.3.3 Secondary data

As a complement and support to the primarily sources in the study secondary data has been used. Criticism of sources is extra crucial when using secondary, or third handed information. Even though there are questions about some parts of adequacy concerning secondary sources, it is a presumption and foundation to support the primary. Books, articles, websites, prior theses and studies are some of the secondary sources used in this master thesis. Articles, books, papers and reports, have been searched for mainly through Lund University Libraries[66]. Also course literatures from the Technology Management program and other courses have been valuable sources for references and inspiration.

2.3.4 Interviews, workshops and discussions

A crucial part in the data collection has been information from interviews and discussions, but also from the case study in form of direct observation[67]. During the initial phase, started in December 2006, issues for a master thesis were discussed. These interviews and the first meetings during the spring semester 2007 were held in a way that in the literature is called face-to-face, open individual or open group[68]. The interviews conducted have been semi standardized[69], i.e. an interview guide was prepared in advance, but served mostly as a framework and a dynamic document possible to adjust to different situations. If interesting aspects appeared during the conversation the methodological agenda did not obstruct these to be developed in order to give new angels on the topic. Since there is a distinct qualitative approach in the thesis it is especially relevant with this form of interview[70]. The interviews generally did not last for more than one hour. Recorder has not been used during the personal interviews because it can create an undynamic situation and risk to impede the respondents' information or approach[71]. Both authors have together carried out the majority of the conducted interviews during this project. Due to this, notes could be written parallel, and it also sends an active gesture that the answers are of interest[72].

[64] Jacobsen, D. (2002) p. 152
[65] Ibid
[66] Search engines: OLLE@EHL, ELIN@Lund, Lovisa and Xerxes
[67] Andersen, I. (1998) p. 156
[68] Jacobsen, D. (2002) pp. 159-160
[69] Lundahl, U., *et al* (1999) p. 116
[70] Ibid
[71] Andersson, I. (1998) p. 145
[72] Jacobsen, D. (2002) p. 171

The face-to-face approach also makes it possible and easier to note signals and body language from the respondents, that also gives input to the issue[73]. The facts that most of the interviews were held in the respondents' home area, i.e. their office buildings have made an eventual impact from a context affect minor[74]. Just in a few cases the interviews have been done by e-mail or telephone. Afterwards the interviews have been briefly discussed internally, notes compared and then written down in a fair copy where both could insert inputs. All in order to obtain a high standard of the collected data. The transcription from raw data to commented documents have been done within one day, this to prevent feelings or information connected to the situation to be forgotten[75]. It has also often existed an opportunity to double-check the answers if necessary, which further reinforced the decision not to record. The continuously reflections and discussions between the authors have been a fundamental part in the working process and have secured a critical view of what is value adding. Because of the fact that the authors come from outside the organization and thereby cognizes as neutral have influenced positively and the experiences are that it has made the respondents both open and honest in their answers. To exemplify the discussions, deepen the relevance and to gain experience from other generically cases best practice and benchmarks are used in some extend. This to get experience from other similar projects and to take use of valuable input.

2.3.5 Choice of respondents

Bo Gabrielsson and Peter Friberg have opened up many doors within the organization and sanctioned the work by several instances and interesting persons. This together with the given access to the organization and a highly relevant topic made a favourable springboard for the master thesis. Before the planned meetings, respondents were contacted by e-mail or phone in order to briefly inform about the purpose and ambition. Persons to interview were chosen on behalf of their relevance to the issue, but also aspects like geographical location, respondents' possibility to set off time for meetings were as well influencing the choice. By interviewing a number of representatives at different levels of the identified network or value chain a diversified picture have been reached. This strengthens the objectivity as well. The choice of respondent also builds in many cases of recommendations from the tutor and others who have been contacted at Axis. Recommendations as a method of choosing respondents are connected with some negative aspects, while there is a possibility to be influenced throughout on what ground the recommendations have been done[76]. A problem-oriented selection[77] has also been used, when identified persons relevant to the current topic have been contacted. There is no direct reason why conclusions should be angled to Axis wish in one direction or another, the stated framework gives the deliberately opportunities to work without strict and delimiting

[73] Eriksson, L., *et al* (1997) p. 87
[74] Jacobsen, D. (2002) p. 164
[75] Ibid pp. 222-227
[76] Arbnor, I., *et al* (1994) p. 240
[77] Ibid

guidelines concerning the results. A wish from Axis was to be evaluated in these matters and to be viewed through external eyes.

2.3.6 Axis internal information

The internal web site, *Axis Inside*, is a source with a considerable amount of information, documents and guidelines. More or less total access was permitted to the authors in order to gain insight and overview of the organizational working process and alignment. The internal CRM-system, also named *CRM* (pCRM*)*, has been a source of information and a fundamental part in the forthcoming discussions. This since the system is one of the nerves of today for information and knowledge management concerning projects processes, mainly connected to prognosis and project sales within Axis organization.

2.4 Theories

The forthcoming empirical study and analysis are based in the theoretical framework. The theoretical choices done will have influence on the perspective of the discussion in the study. Therefore it is of importance to evaluate the relevance of each theory used and to be aware of the purpose of the investigation. A lot of theories are appliable to the situation, but are for different reasons not chosen to be supporting the analysis in this study. More about these decisions later. The theories used in the thesis, more closely explained in chapter 4, are Network Theory, Knowledge management, Resource Based View and the view from Human Computer Interaction.

2.5 Method reflections

Choice of method for data collection is closely correlated to validity and reliability aspects, and therefore relevant to previous discussion. Regardless what kind of empiric studies that are conducted, it shall fulfil at least two needs. At first it must be relevant and secondly it has to be credible[78]. There are different schools whether it is correct to talk about validity and reliability in both qualitative and quantitative perspectives. The two notions are mostly interconnected with the quantitative methodology, but function as well to the qualitative[79]. Despite, it is relevant to see situations from a perspective concerning authenticity and weight, which more or less can be seen as metaphrases for reliability and validity.

In many cases the original works have if possible been used as references. Literature and theories have been compared. Papers, reports and books from EHL as well as LTH, partly course literature, have primarily been used with the purpose to secure high credibility[80]. Regardless primary or secondary data, source criticism is of importance[81]. There are pros and cons despite if qualitative or quantitative, but while

[78] Jacobsen, D. (2002) p. 21
[79] Ibid pp. 255-257
[80] Ibid p. 210
[81] Lundahl, U., *et al* (1999) p. 134

focus is on primary qualitative sources it is natural to look at these effects. The so-called interviewer effect can be a possible source of error and affect the data outcome[82]. Since many interviews have been performed and also with different parts in the organization this must be seen as peripheral. Positive aspects associated with qualitative work are for example possibilities for a high grade of internal validity, flexibility and closeness to the examined parts[83]. For the negative view, there are often some problems with the generalization to other cases and that a substantial amount of information and access to this could be inhibitory for the writing process[84].

A possible influence through confusion of tongues can be the case due to the international environment Axis is working in. It can be the interview situations where nor the respondents or the interviewers have English as native language. To prevent eventual misunderstandings have, when necessary, other representatives checked the material or empirical findings to verify a correct understanding. In other cases, where extra verification was needed or possible, triangulation was conducted to secure relevance[85].

2.6 Summary

There is a trade-off situation between specialization and generalization when working with methodology aspects[86]. In this master thesis both will be provided for in some way. Specialization is done through case study, and open abductive approach to Axis organization which results in some concrete and customized recommendations. The general contribution is mainly from the theoretical findings and model development that are possible to apply to other, even if similar, situations and companies. However, the findings regarding Axis can also in some aspects be seen as general while information flows, knowledge incorporation and knowledge transference is a common matter to solve in today's businesses in a fast moving and dynamic market place.

[82] Jacobsen, D. (2002) p. 270
[83] Ibid p. 142
[84] Ibid pp. 144-145
[85] Andersson, I. (1998) p. 33, Jacobsen, D. (2002) p. 258
[86] Jacobsen, D. (2002) pp. 250-251

3 Theory

Three main theories are used in the master thesis, Network theory, Knowledge Management and Resource Based View. These are in turn supported by different theoretical approaches. Human computer interaction is as well of interest for the thesis and it will be discussed in this chapter. They will constitute the framework to coming analysis, identification of the theoretical contribution and the ending conclusions.

3.1 Motivation and explanation of the theories

To break down and explain the existing situation three different theories are being used. All connected to each other, but still with individual dimension which give further views, comprehensions and different depths.

The first theory in this chapter is the Network theory, which is used to identify the structure of the sales process and Sales PM's role in this environment. The theory enlightens, for example, the flow of information and knowledge and complications an inconclusive network can cause. Network theory also explains relations between actors and the benefits of these connections.

Knowledge Management complements the first theory and illuminates the importance of sharing and conservation of knowledge, which is developed in different parts within the network. In the same way as Network theory, Knowledge Management stresses the importance of good communication and different flows and interaction between parties in an organization.

Finally Resource Based View is introduced, which works as an umbrella theory and combines both the two earlier theories and works as a link to the organization and strategies and defines a foundation from which strategic choices can be done. Some other theories and complements to the earlier ones will be present as well to get hold of further interesting aspects. One of these is Human Computer Interaction that gives a wider as well as practical view of the situation and supports the three major theories. See also the grey box under 3.9.1, *Model and theory discussion*, for a theory synthesis.

3.2 Theoretical introduction

To get a broader perspective of a business's operation it is of interest to analyze from both an intern and extern perspective. In what way the operation is organized depends on internal, political, social and physiological processes between individuals. These

processes are crucial for how the company ensembles with the external context.[87] Changes in these processes, strategy or structure in other hand depends more on what happens outside the firm than within[88]. Managing international business is a matter of establishing, developing and maintaining the firm's position in the international business network[89]. Businessmen in general agree that relationships within their business are of critical importance. However are the relationships hardly visible from outside, because of their tacit phenomena.[90]

In broad outline, Network theory takes the implication that no business stands alone. Businesses always have relations to other businesses and these relations play a decisive role in the business success. To survive and be able to focus on the core business, companies have to establish relations to others in the network.[91] In a network perspective it is elementary that individuals within the network depends on resources and knowledge controlled or hold by others. To get access to desirable resources there has to be interaction between the players in the network.[92]

By investing in relations the individual organizations or part of organizations are gaining knowledge and resources from their network partners. Over time the connections grow both stronger and more stabile.[93] Whether strong and stabile relations or ties are good or bad depends on the context and the actors' intent in the network[94].

3.3 Network theory

"Relations are a part of the human nature. If the social network of relations should be annulled, the whole society would be unravelled to individuals. Relationships are everywhere around us and "the right connections" can be crucial for success."[95]

Because of the broad perspective Network theory gives, with both internal and external perspective, it is closely associated to many other theories, which have a natural part in relations between different actors, such as Supply Chain Management, Knowledge Management and Relationship Management[96].

As mentioned previously, it is crucial to look at the company's environment as well as at the other actors in the network. Strategic networks are composed of internal ties

[87] Nygaard, C., *et al* (2002) p. 19
[88] Grant, R. (2005) p. 523
[89] Forsgren, M., *et al* (1992) p. 2
[90] Ibid p. 4
[91] Nygaard, C., *et al* (2002) p. 217
[92] Schary, P., *et al* (2001) p. 84
[93] Ibid
[94] Granovetter, M. (1983) p. 202
[95] Gummesson, E. (2000) p. 20
[96] Schary, P., *et al* (2001) p. 84

that are of strategic significance for the actors entering them. It is not exclusively something positively to be a member of a network. Networks can in some cases have a negative affect and lock companies into unproductive relationships or exclude partnering with other possible actors.[97] The relationships in a network could in other words be a source of both opportunities and constraints. The strategic importance of the companies' network assumes enhanced as the economic environment becomes more competitive. The network perspective allows consideration of the total strategic benefits from optimizing the company's entire network of relationships and not just a single relationship or transaction.[98] A network relationship has the potential to establish teams that combine resources to achieve more and better than they could do individually. Ties in a network can be both direct and indirect connections. Actors in the network are affected not only by their own operations and nearest linked organizations but also by other organizations to which they may be connected only indirectly.[99] Relationships of importance between customers and suppliers are developed over time through interaction processes. Due to the exchanges the parties gradually learn about each other's strategies, needs and capabilities. This builds trust as well as adaptation to each other's way of performing operations and committing resources to the relationship.[100] Relations between different actors and common strategies make the environment complex and hard to analyze and this is what Network theory is all about. With network analysis can the structure be taken into pieces, and the ensemble between resources acquires, personal- and professional relations can be enlightened.[101]

3.3.1 Relations effect in the network

Indicators of return on relationship are mostly limited to relations between customer and supplier. Relationship marketing has a more broadened sense and embraces markets, society and internal organization as networks, in which interaction takes place.[102] Product and services spreads through the networks of distributors and resellers, makes the manufacturer and end-customer completely anonymous for each other. One-to-one marketing, affinity groups and communities are common concepts in relationship marketing and the focus is the individual or a specific group, network, relation or interaction.[103] Relationship marketing produces value for all parts in a network, mainly in form of interaction and exchange of resources, but it also helps companies to grow customer retention, duration, productivity in marketing and its profitability as well as stability, which can be seen in return on relations[104]. Return on

[97] Gulati, R., *et al* (2000) p. 203
[98] Ibid p. 204
[99] Schary, P., *et al* (2001) p. 86
[100] Forsgren, M., *et al* (1992) p. 3
[101] Nygaard, C., *et al* (2002) p. 23
[102] Gummesson, E. (2004b) p. 136
[103] Gummesson, E. (2000) p. 21
[104] Gummesson, E. (2004a) pp. 36-37

relations can be defined as the effect on long turn profitability, which emerges through establishment and maintenance of an organizations network of relations.[105]

3.3.2 Network structure

Relations and connections between several parties are two of many concepts in Network theory. Relations describe social connections between actors. A connection between two actors is called a dyad, three – triad.[106] Networks emerge when the number of relations gets several, complex and hard to describe (figure 3.1, 3.2).[107]

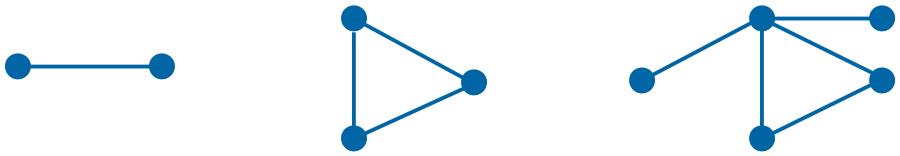


Figure 3.1 Dyad, triad, network.

Even the two parties in a dyad may have inconsistent perceptions of their relationship, which complicate the relation. An actor who is not engaged in a network can only get a superficial comprehension of it. Learning the structure of a network requires interaction within the system.[108]

There are an amount of different theories considering relationships and it can be hard to tell what differences them. Network theory ties the theories all together and gives a broader picture of the structure and the relations.[109]

Absence of ties or relations, which appears as holes in the structure, can have major consequences for the business. Structural holes can be seen as gaps in flows between parties linked to the same node in a network, but not linked to each other (figure 3.2). A structural hole indicates that the nodes on either side of the hole have access to different flows of information and resources.[110] The characteristics and the amount of holes can have big influence of the profitability

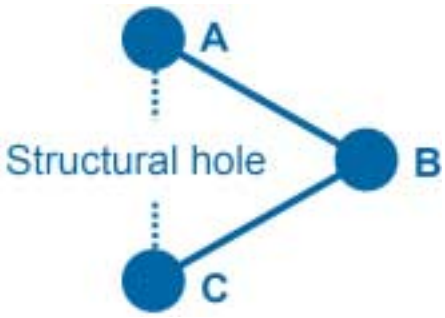


Figure 3.2 Structural hole between A and C.

[105] Gummesson, E. (2000) pp. 240-246
[106] Nygaard, C., *et al* (2002) p. 221
[107] Gummesson, E. (2000) p. 17
[108] Forsgren, M., *et al* (1992) p. 10
[109] Gummesson, E. (2004a) p. 13
[110] Ahuja, G. (2000) p. 431

and industry returns for the actors within the network[111]. Structural holes give meaning to the concept of social capital, which can be defined as the advantage created by an individual's location in a structure of relationships. Some actors gain more success, than others, in a particular setting through their superior connections.[112] The number of holes in a network or organization decrees the information flow and foster competition[113]. In the concept of structural hole, social ideas are mixed with economic ideas of monopoly power and oligopoly to produce and declare network models of competitive advantage. In a network with a perfect market the price is set after the demand and supply, but in a network containing structural holes there can be multiple prices because disconnections between individuals.[114] Networks with a star shaped structure, where the firm's partners have no links to each other and where relations are weak the resource sharing, knowledge spill over or information benefits are sparse or absent[115] (figure 3.3). Holes in the structure create unawareness of benefits in the network because of the lack of connections and relations. A special position in the structure can therefore be an asset in its own right as well as an expensive disadvantage.[116] A company, which occupy a structural hole can benefit from greater returns by being able to control the resources that flow through them[117].

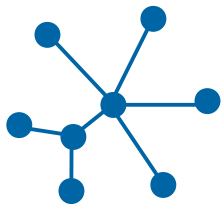


Figure 3.3 Star shaped network.

3.4 International networks

Finding and understanding the general patterns in the process of internationalization at a firm level is one part of the network analysis. Managing the internationalization process is a matter of understanding the forces driving and preventing it. Knowledge regarding the market is in this case more important than the firm-specific competitive advantages. The firm is not alone at the market, there are innumerable potential actors acting in relation to the firm. With this perspective the importance of responding and relate to those other actors and how to organize to be able to respond appropriately is enlightened.[118]

International organizations are naturally conducted in business units operating in different countries. In theory, the business units often are controlled and coordinated by a central headquarter, which formulates an overall strategy. However is the realization of such strategies often less than perfect in practice. In a more particular view firms develop lasting relationships, when doing business, thus becoming

[111] Gulati, R., *et al* (2000) p. 205
[112] Burt, R. (1997) p. 339
[113] Hoffman, J. (2005) p. 96
[114] Burt, R. (1997) p. 340
[115] Ahuja, G. (2000) p. 432
[116] Burt, R. (1997) p. 341
[117] Gulati, R., *et al* (2000) p. 205
[118] Forsgren, M., *et al* (1992) p. 13

engaged in wider networks of business relationships.[119] The dynamic nature of internationalized organizations' networks express the evolving process where one level affects changes in other levels[120]. The engagement from the different business units and positions in these networks has important consequences for management in the global firm. The network force the overall strategy through the firm as well as it makes it easier for the business units to influence the strategy.[121]

In the sense of how engaged a firm is in their network in different countries they can be more or less internationalized. By developing more and more positions in networks in different countries and interrelate between them the firm gets further internationalized.[122] From a resource-based view internationalized organizations permits organizations to share resources and thereby overcome resource-based constraints to growth[123]. By studying the international firm from a more complex, mutual multi-centred structure, in combination with the firm's network engagement this form a basis for advocating a more political perspective on the international firm, instead from a common used hierarchical view[124].

3.5 Networks and knowledge development

The discussion about development of knowledge in firms has stressed the interplay of individual knowledge and social context. This approach acknowledges that there is a social aspect of knowledge. Perhaps is this related to structures of personal networks or qualities distributed within a group for example routines, beneficial codes of interaction such as ethics, communication, stories that encapsulate key knowledge and so forth. These kinds of knowledge aspects are collective and cannot be meaningfully captured on an individual level in an organization.[125]

Some companies, who are trying to protect internal knowledge, easily distance suppliers and partners[126]. In contrast there are companies, which instead embrace and encourage knowledge and information sharing with their suppliers by establishing networks. By creating rules and routines for the exchange of knowledge, important information can be protected[127]. In this way the whole chain gets more efficient and gain competitive advantage. The individual operation becomes closer to the network by reliable relationships, which is important when companies start focusing on their core competence.[128] The structure of the relationship within a network can, in the same way as the relationship structure in an organization, be estimated from the grade

[119] Forsgren, M., *et al* (1992) p. 19
[120] Tang, F., *et al* (2006) p. 189
[121] Forsgren, M., *et al* (1992) p. 19
[122] Ibid
[123] Tang, F., *et al* (2006) p. 191
[124] Forsgren, M., *et al* (1992) p. 20
[125] Parker, P. (2004) p. 87
[126] Prusak, L., *et al* (2006) p. 341
[127] Stein, J. (1996) p. 95
[128] Prusak, L., *et al* (2006) p. 341

of centralization, specialization, formalization and durability. An organization's role in commutation of knowledge in a network can be more or less central. There is always a risk that an organization is more of a taker than a giver and does not spread the knowledge further in the network. This affects the whole system in its development, which over time even can affect the taker itself. The central role as taker can nevertheless be a role of power because of its advantage of information.[129]

When a network grows stronger and tighter the knowledge interchange goes gradual from explicit to tacit. Holes and want of ties constrain the possibility for conducting knowledge in contrast to multilateral ties, which enables transference of tacit knowledge.[130] Organizations within strongly specialized knowledge areas or with a strong idea can have problem communicating knowledge different from their own. Experts from the same area however, but in different organizations, probably communicate better than different experts within the same organization.[131] Strong identification to a network and benefits of being a part of it makes its members to feel obligated to reciprocate information and to share knowledge more freely. This brace multilateral ties and creates sub networks, within the larger networks, for knowledge sharing. In these sub networks mainly tacit knowledge are being exchanged.[132]

The duration of a relation has consequences for the network. Short relations have a capacity of being weak because of the lack of knowledge and trust. However long relations are not exclusively positive. They can affect the responsiveness and reflect negatively for alternative impressions, as well as emotional relations can be hard to change or break.[133]

3.6 Knowledge Management

"Knowledge Management refers to processes and practices through which organizations generate value from knowledge."[134]

Former thoughts about Knowledge Management have been focusing on information technology such as intranets, groupware and databases, which have been used for storing, analyzing and disseminating of information[135]. The field of Knowledge Management nowadays has a more soft approach and is seen as a part of the concept Intellectual Capital[136]. Effective Knowledge Management depends on information technology platforms, but also the social ecology of an organization is essential,

[129] Stein, J. (1996) pp. 94-96
[130] Prusak, L., *et al* (2006) pp. 347-349
[131] Stein, J. (1996) pp. 95-96
[132] Prusak, L., *et al* (2006) pp. 348-349
[133] Stein, J. (1996) p. 95
[134] Grant, R. (2005) p. 172
[135] Ibid
[136] Mårtensson, M. (2000) p. 205

which refers to the social system people operate in[137]. The interest in gathering information and knowledge has become more and more relevant in today's businesses because of the great alternation of generations and the view of knowledge as a critical resource as well as the more knowledge-based view of firms.[138] Strategic resources tend to be knowledge-based and contribute to firms' competitive position[139]. Knowledge is no longer a resource it is rather the resource[140].

Since intellectual capital depends on the combination of knowledge and experience of different parties, intellectual capital's creation is greatly facilitated by the existence of social capital. Social capital has also been theorized to play a role in the development of core competencies that are vital to knowledge creation.[141] The effect of working with Knowledge Management and the ability to gain in performance is arguably. Hard-drawn there are two sides; those that stress the risk for information overflow and those that argue the positive affect of sharing information.[142]

The knowledge-based view itself can be seen from two perspectives, the resource based view and the strategic. In the resource perspective, knowledge is recognized to be the overwhelming important productive resource. The value in employees and possessions lies in the fact that they embody knowledge. From a more strategic viewpoint knowledge is interesting because of the tacit and explicit definition of it. The complexities to create, transfer, replicate and maintain knowledge is of great strategical interest and can together with the organizations capabilities for doing so be illuminated with the tools of knowledge management.[143]

Companies that have superior knowledge are able to coordinate and combine their traditional resources and capabilities in distinctive ways and provide more value for their customers. Therefore knowledge can be seen as the most important strategic resource. The ability to gather knowledge, integrate, store, share and apply it is probably the most important capability to develop a competitive advantage. By engaging in knowledge management the organizations fundamental ability to compete can intensify.[144] Information technology often plays a central role in knowledge management, but there are pros and cons. It all depends on how efficient the company is at using the technology. This depends fundamentally on the social ecology of the organization.[145] See also 3.8 *Human Computer Interaction*.

[137] Gupta, A., *et al* (2000) p. 72
[138] Prusak, L., *et al* (2006) p. 22
[139] Jugdev, K., *et al* (2006) p. 604
[140] Mårtensson, M. (2001) p. 7
[141] Hoffman, J. (2005) p. 98
[142] Grant, R. (2005) p. 173
[143] Ibid
[144] Zack, M. (1999)
[145] Gupta, A., *et al* (2000) p. 72

3.6.1 Explicit verses tacit knowledge

Tacit knowledge exists in the individual's know-how, experiences and involves skills that are expressed through their performance and action[146]. Explicit knowledge is more of knowing-about and implicates facts, theories and sets of instructions. There is primary the possibility in transferability that differ the tacit and explicit knowledge apart. Explicit knowledge can easily be transferred and communicated between individuals, organization and time, most commonly as information. Once it has been created it can be transferred and shared at very low costs. Tacit on the other hand has to be observed through its application and acquired through practice. Transfer of tacit knowledge is slow, expensive and uncertain.[147] Because of the easiness to transfer explicit knowledge it can seldom be seen as a sustainable competitive advantage. To uphold it as a competitive advantage it has to be protected, either by intellectual property i.e. patents, copyrights or by secrecy. Tacit knowledge has the opposite problem. It can easily be seen as a competitive advantage but it is difficult do spread within the organization. The distinction of knowledge has vital implications for the management when decisions have to be made within the company. If the knowledge relevant to the issue is explicit it can be transferred and assembled for who should be making the decision. If the relevant knowledge should be tacit, it can no longer easily be transferred and the decision has to be taken among those where the knowledge lies.[148]

"If each salesperson's knowledge of how to make sales is based on their intention and their understanding of their customer's idiosyncrasies, such knowledge can not be easily transferred to their sales managers. It follows that decisions about their working hours and selling tactics should be made by them, not by the sales manager."[149]

3.6.2 Knowledge processes

To understand the processes, through which knowledge is developed and applied, is also a part of Knowledge Management. The knowledge process can be identified in two categories of focus; increasing the stock of knowledge available for the organization (exploitation) and conformation of the organization's knowledge (application). These two broad areas can then be separated to a number of different knowledge processes that in one way or another uses particular techniques and approaches, which associates them with knowledge management.[150] The most frequently used techniques of Knowledge Management have focused on the more basic aspects of both knowledge exploitation and application[151].

[146] Shin, M. (2001) p. 336
[147] Grant, R. (2005) p. 174
[148] Prusak, L., *et al* (2006) pp. 21-23
[149] Grant, R. (2005) p. 174
[150] Ibid
[151] Prusak, L., *et al* (2006) pp. 22-23

Identification
Assembling and systematizing information of knowledge that is being generated within a company are the key aspects of knowledge identification. The idea is to allocate knowledge and store it for future use. Everything from employees to assets evaluates on the base of skills and knowledge value. This kind of knowledge identification is of importance, not at least in project-based organizations to make sure that knowledge, which has been developed during one project, can be reused within the organization.

Measurement
To be able to measure an organization's extent of knowledge, a quantitative scale has to be applied to the stock of knowledge. This is a difficult task but can be done through instruments such as balanced scorecard, linking the company's intellectual property to the shareholder.[152] With the measurement approach focus lies on measuring non-financial data together with the traditional financial ones and develop new information systems[153].

Storage and organization
Sharing knowledge within an organization in an efficiently way is critical. During the last years technology such as databases and intranets have made it easier for companies to store and access to knowledge. Depending on the art of the storage and organization the knowledge that get stored are exclusively explicit.[154]

Sharing and replication
Transferring of knowledge for replication, from one part in an organization to another or between people is also a kind of storage, but mainly for tacit knowledge[155]. Informal networks play an important role for this transfer of knowledge as well as apprenticeship and further training within the organization[156].

Integration
Taking care of each individual's knowledge and use this optimal to bring as big value as possible to the organization is one of the greatest challenges for a company. Integrating individual knowledge has to be made in both an effective and efficient way. With knowledge integration shall the knowledge within a team integrate from each individual to a new sum, and there be larger than each individual's level.[157]

Generation
Generation of knowledge includes all kind of activities discovering new knowledge[158]. Knowledge can be generated from both internal activities and from

[152] Grant, R. (2005) pp. 174-175
[153] Mårtensson, M. (2000) p. 205
[154] Prusak, L., *et al* (2006) p. 23
[155] Grant, R. (2005) p. 176
[156] Prusak, L., *et al* (2006) pp. 23-24
[157] Grant, R. (2005) p. 176
[158] Hoffman, J. (2005) p. 93

absorbing external existing knowledge. One way of acquiring knowledge from the outside can be through consultants and experts, who are hired into the company. Benchmarking, alliances and networks are other ways of generating knowledge.[159] Knowledge, which is generated within the firm, is especially valuable, as it tends to be unique and tacitly held which many times makes it strategically valuable. Knowledge from the outside is often more costly to obtain and it is accessible for competitors, but in combination with internal knowledge it can provide fresh thinking and unique insights.[160]

By identifying the linkage between knowledge and how the company creates value, the key process through which knowledge is generated and applied could be highlighted[161].

3.7 Resource Based View

"A firm is said to have sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of the strategy."[162]

Theory concerning Resource Based View, RBV will always refer to Barney's developed theory, which was presented in 1991[163]. When a firm's resources are discussed all kind of assets are included. For example knowledge, capabilities, information and firm attributes, that is controlled by the firm and enables it to conceive and realize strategies that improve its efficiency and effectiveness. Barney divides the firm's resources into three categories; physical-, human- and organizational capital resources. The firm's physical capital resources include things like the physical technology that is used, the geographic location, access to raw material and the firm's office premises. The leaders' and co-workers' experiences, training and relationships are included in the human capital resources. In organizational capital resources formal and informal planning, controlling and coordinating system are included. As well as the firm's reporting system and informal relations among groups within and between firms.[164]

According to the RBV theory resources in some industries are heterogeneously distributed and immobile. In these industries it is possible to sustain competitive advantage over time.[165] To be called sustained competitive advantage or strategic

[159] Prusak, L., *et al* (2006) pp. 24-25
[160] Zack, M. (1999)
[161] Ibid
[162] Barney, J. (1991) p. 102
[163] Ehrnrooth, M. (1997) p. 2
[164] Barney, J. (1991) p. 101
[165] Ehrnrooth, M. (1997) p. 3

resource the resource must full fill at least four attributes. First it has to be valuable and provide economic value by exploit opportunities and neutralize threats that are in the firm's environment. It has to be rare or unique among potential competitors as well as difficult to copy i.e. imitable.[166] Finally it has to involve organizational support in form of management, processes and systems[167]. Substitutes for resources that are valuable, but neither rare nor imitable can in other words not be strategically equivalent. These four attributes constitute the VRIO-framework, which can be used to find empirical indicators of how heterogeneous, immobile and useful resources are sustained competitive advantages. [168]

Competitive advantages, both tangible and intangible resources can be examined by using RBV[169]. The concept Resource Based View is a theoretical framework that has had great influence on how firms analysis and creates strategies, that internally generate value.[170] The RBV perspective focuses on the internal organization and can therefore be seen as a complement to many traditional emphasis of strategy on industry structure and strategic positioning. The purpose of the focus on the internal operations is to achieve competitive advantages by using the company's resources efficiently. RBV is based on assumptions that resources in a multifaceted way distributes between firms and that the differences between specific firms related resources are relative constant over time. [171]

Within the RBV there is also a historical dimension, which indicate the affect of historical background and what affect this has had in the development of the organization. The history of the company can affect the capability in both a positive and negative way. This is in the literature mentioned as the company's unique historical background.[172]

3.7.1 Resources and capabilities

In the discussion around RBV it is important to have a clear view of the notions resources and capabilities, especially when the definitions of concepts within the theory can differ depending on author and subject area (see figure 3.4[173]). Resources can simply be defined as stock of available factors that are owned or controlled by the firm. By using a wide range of other firm assets and mechanisms such as technology, management, incentive system or labour, and combining them together, resources can be converted into final products or services.[174] These resources consist of tangible, intangible and human resources, which are important to distinguish in the discussion

[166] Barney, J. (1991) p. 106
[167] Jugdev, K., *et al* (2006) p. 604
[168] Barney, J. (1991) p. 106
[169] Jugdev, K., *et al* (2006) p. 604
[170] Grant, R. (2005) pp. 132-136
[171] Eisenhardt, K., *et al* (2000) pp. 1105-1106
[172] Barney, J. (1991) pp. 107-108
[173] Grant, R. (2005) p. 139
[174] Schoemaker, P., *et al* (1993) p. 35

of RBV. Tangible resources are both easy to identify and evaluate, which make them easy to imitate. Intangible resources can for example be corporate culture or reputation. Intangible resources often contribute more than tangible to the companies' total asset. Still remain intangible resources undervalued in relation to the company's total value. Human resources are typical skills, knowledge and decision-making abilities, which the company's employees possess. With the VRIO-perspective there are only intangible and human resources that can give rise to sustained competitive advantages.[175]

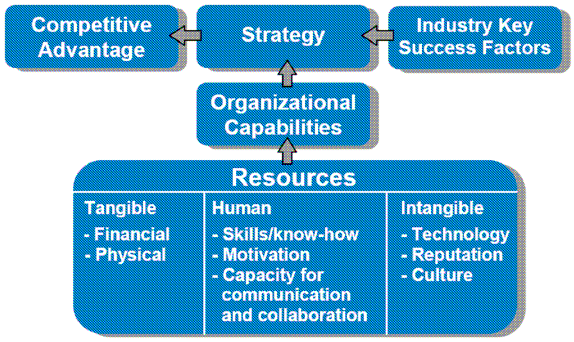


Figure 3.4 Links between resources, capabilities and competitive advantage.

Capabilities on other hand refer to the firm's capacity to deploy and combine resources, using organizational processes, to affect a desired end. These processes are information-based, tangible or intangible and firm specific, which are developed over time through complex interactions among the firm's resources. Capabilities are often developed in functional areas by combining physical, human and technological resources. As a result, firms may build such corporate capabilities as highly reliable services, repeated process or product innovations, manufacturing flexibility, responsiveness to market trends, and short product development cycles.[176] Resources have to work together to gain competitive advantage and create organizational capability[177].

3.7.2 First mover advantage

Depending on the trade and environment, the first firm in an industry to implement a strategy can obtain a sustained competitive advantage. First movers can gain access to important channels within the industry and create relations to distributors and customers, before firms, which later are implementing the same strategies.[178] This pioneering benefit provides the common first mover advantage framework[179]. Firms in these markets may therefore gain sustained competitive advantages[180].

Pioneers within a business are able to obtain favourable economic profits as consequence of early market entry, in other words profits in excess of the cost of

[175] Grant, R. (2005) pp. 138-144
[176] Schoemaker, P., *et al* (1993) p. 35
[177] Grant, R. (2005) p. 139
[178] Barney, J. (1991) pp. 104-105
[179] Frynas, J., *et al* (2006) pp. 322-323
[180] Barney, J. (1991) pp. 104-105

capital[181]. Although early market entry does not automatically award pioneers with higher profitability, it could give a leading edge and a possibility to build up an entry-cost for other firms[182]. Implementing a strategy before any competitors and be a first mover requires insight about opportunities associated with choice of strategy. If competitors are implementing the same strategy there will be no first mover advantage.[183]

There are a number of studies suggesting that the order in which firms are entering a market is in some meaning related to the market share. First movers often have higher market shares than early followers, who in turn have higher market shares than their followers.[184] In almost all industries there is some degree of resource heterogeneity and immobility. However in a homogeneous industry the possibility to be a first mover decreases. There are no unique resources and all firms are able to conceive and implement the same strategy and take part of the same opportunities as all the others.[185]

3.7.3 Dynamic capabilities

Companies manage dynamic and rapid changing markets differently. This difference is not explained in the resource based view, which has led to a further development of the theories where focus has been set to the impact of the firm's dynamic capabilities.[186] Vague and author specific definitions of dynamic capabilities and competitive resources has been criticized as tautological and not operational[187]. Dynamic capabilities describe how firms work to develop their resources and how they integrate, reconfigure, gain and release resources to match and create market change. For example can dynamic capabilities be routines for product development by which varied skills and functional backgrounds create value through services or products.[188]

The managerial and organizational processes, which is shaped by the firm's asset position and the paths available to it is decisive for the firm's competitive advantages. The process describes routines and how things are being done. Asset position refers to things like the company's customer segment, external relations or the technology, which is being used. Paths refer to the different strategic alternatives available to the firm now and in the future.[189]

[181] Frynas, J., *et al* (2006) p. 322
[182] Kerin, R., *et al* (2006) pp. 33-34
[183] Barney, J. (1991) pp. 104-105
[184] Kerin, R., *et al* (2006) p. 33
[185] Barney, J. (1991) pp. 103-104
[186] Teece, D., *et al* (1997) p. 509
[187] Priem, R., *et al* (2001) pp. 22-24
[188] Eisenhardt, K., *et al* (2000) p. 1107
[189] Teece, D., *et al* (1997) p. 518

The level of dynamic at a market influences the company's dynamic capabilities. A moderately dynamic market frequently changes, but do so over time and along roughly predictable and linear paths. The trade structures are relatively stable and the actors, relations and boundaries are known. In a moderately dynamic market effective dynamic capabilities mainly rely on existing knowledge. In contrast to the moderately markets is the nonlinear and less predictable, which by some authors are called high velocity markets. They are more dynamic and the existing knowledge is less important for the dynamic capabilities. Instead knowledge has to be situation specifying and created rapidly. In some cases existing knowledge can be a disadvantage due to decisions being made on the basis of old situations or information.[190] A basic core competence becomes distinctive when it is not only something that a company does very well, but the company does it better than anyone else in the industry[191].

3.8 Human Computer Interaction

"Human Computer Interaction focus on the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them."[192]

Computers are spread into everyday working life, and it has lead to that more people without expert knowledge of computers are being required to use them in order to carry out their expected work tasks. This is also a trend among computer programs, which is getting more and more complex. As a consequence of this, the challenge for professional developers and implementers of computer programs are to provide systems with satisfying productivity. During the mid-1980s' research concerning human-computer interaction was mostly about psychological aspects of individual interactions with computers. In contrast has the intention of the researchers studies during the later 1980's and 1990's increasingly turned to an analysis of a larger part of the social situation to the software products. The shifted focus has for example led to that problem with old development and implementing systems has been enlightened.[193] Moreover there is a conflict between developers and users. Developers claim that users have lack in computer knowledge and that they have little or no ability to describe their work tasks. The users in other hand feel that they have problem to influence and therefore reduces their commitment to the develop process.[194]

[190] Eisenhardt, K., *et al* (2000) pp. 1110-1111
[191] Hoffman, J. (2005) p. 94
[192] Preece, J. (2002) p. 8
[193] Allwood, C., *et al* (1998) pp. 231-232
[194] Heinbokel, T., *et al* (1996) p. 227

Focus in the interaction has naturally been shifted when the technology and the way it is used has been improved[195]. During the last ten years the focus in designing interfaces has gone from the single user to support multiple individuals working together and using the same computer system, but still with different backgrounds and working tasks. Databases exemplify a type of software that often is used to help people to communicate. The application friendliness of the database is depending on the load of information being stored in the database, the interface towards the user and the possibility to search information. Difficulties users encounter when they are using databases can be separated into different kinds. It can either be related of mechanical art, such as difficulties logging into the system, getting access or language confusions. There can also be problems related to conceptual aspects of searching for example incorrect or illogical searching parameters. Sources of problems when working with databases can be associated with individual characteristics such as experience, personality and age. But perhaps a larger source of problems is the design of database system. In many cases a more graphic-oriented interface can be the solution for this kind of problems.[196]

Usability can be defined in relation to a product measured in its use-context and is seen as an aspect of a larger concept of quality and is also including things like reliability, portability and testability. Effectively or the degree of completeness is one of three factors seen to make up usability. Satisfaction and efficiency are the two others. Usability can as well include the users' acceptance and their competence to use the program.[197] Functionality and usability and of software depend on a transfer of knowledge from user to developer. The transfer of knowledge is a complicated process and time and motivation are often mentioned as reasons to why this communication fails.[198]

User friendliness is a degree to which the program is compatible with and gives support to the users' psychological processes. It thus concerns design of functions within the program. The degree to which the software or program is accessible to the user and to which it provides accessibility to its various parts as well as it is adapted to the specific needs of the individual user is also components of user friendliness. Last but not least the user friendliness includes the extent to which the program and its surroundings provide the user with effective help resources.[199]

3.9 Theory reflections

The theories that have been chosen mainly focus on the inside of the organization and the internal resources and capabilities. The Network theory can both be used to study the internal network as well as the external. In this case however it will be a

[195] Preece, J. (2002) pp. 7-8
[196] Allwood, C., *et al* (1998) p. 232
[197] Ibid pp. 232-233
[198] Heinbokel, T., *et al* (1996) p. 226
[199] Allwood, C., *et al* (1998) p. 233

combination because of the mixture of parties in Axis sales process and the stated purpose. Knowledge Management is more of a concept that can be adapted to an organization in the same way as to a market. Here it is used to enlighten the importance of Knowledge Management in organizations in general, but mainly in those who are in rapidly expanding markets. Knowledge is one of the most valuable resources an organization can possess and works many times as a competitive advantage. Resource Based View raises the two other theories and links these three theories together and to a more strategic dimension. Resource in this thesis will primary be information channels, relations and knowledge. This makes the three chosen main theories ideal.

Supply chain, as is mentioned earlier as a conceivable theory explaining in some extent the relations and flows in the value chain in the same way as Network theory can be used. Because of the focus of information flow, knowledge and the fact that only parts of the sales process will be studied and investigated in this thesis, the authors thereby claim that theories concerning networks are more sufficient. Theories with a broader and more external view of the organization, like SWOT, Cognitive Maps or Five Forces would also have given an interesting view of the structure and the situation, but it would also had lead to perspectives and conclusions which would be beside this master thesis purpose. The authors therefore leave these traces open for further investigation and new studies made by others (see also chapter 7 *Suggestion for further research*).

3.9.1 Model and theory discussion

As a theory synthesis, the intentions are the following; investigating important aspects connected to knowledge, information handling and project management in companies with a high growth rate. The core discussion will be centred on the information handling and the link between knowledge and growth, were also the theoretical issue mainly will be found.

The main theories will have, as mentioned previously in the text, the following function and chronological connections to each other (see text box on next page).

Network theory
To exemplify the internal relationship in the company, but also to other actors in the closest network. Possible obstacles, how these could be over bridged and used in an effective way.

Case study:
How Sales PM function as an intermediary to transfer information and work as a spider in the web. In what extent Sales PM could make the network more effective.
Motivating the existence of Sales PM.

Knowledge Management
Indicates the link between knowledge and growth, but also the importance of knowledge transference and knowledge maintain within an organization.

Case study:
What kind of information and the importance of it, which is delivered by Sales PM in the network.
Motivating the importance of Sales PM´s work, function and role regarding knowledge and information in the network.

Resource Based View
To show the correlation between resources and capabilities in order to gain competitive advantages for the company. Connected to KM when looking at knowledge as a resource.

Case study:
How the work with information transference, and bridging structural holes in the network could be connected to and supporting the goals and strategies of the company.
Motivating the importance and value of Sales PM´s work to the company in general.

Human Computer Interaction
Is parallel to all aspects above, related to these from a more practical and technical view. If there is a problem with the interaction between human and technique it will be influencing the work and results in a concrete manner.

Case study:
Implications regarding the systems used to day at Axis from a user perspective. How this could be developed and experience be gathered for new solutions. In what extent the discussions from previous parts could be implemented in a practical way at Axis.

3.10 Summary

It is of importance to understand the environment in which the organization is active. Relations between actors and actions within a network are of importance and affect the whole organization. Networks and relationships offer both opportunities and constraints. A specific position can take time to change because of connections and wants of ties to others. Therefore it is important with long-term strategy for the relationships that are required for a specific position within the network. Information overtake enabled by a valuable position in the network or structural hole can easily

over time be transferred to advantages in knowledge or a better exchange of resources between actors within the network. Advanced access to information enables benefits and control. This in combination with the knowledge and resource thinking illustrate the importance of relations and the possibility to generate competitive advantages depending on the organization's capability to attend and use its resources. Issues concerning Human Computer Interaction are a relevant topic in this environment, but practical and concrete aspects like this are often overlooked.

4 Empirical findings

This chapter will in a more detailed way, to upcoming analysis, describe the information gathered and present the current situation Axis is working in. This to give a foundation to a general as well as specific discussion and analysis.

4.1 Market description and current situation

Axis is an IT-company that offers network solutions for professional installations. The company is global market leader within network video and a driving force behind the transition from analogue to digital video surveillance. Axis products and solutions are aimed for the security and distance surveillance, based on innovative and open technical platforms.[200] As presented in chapter 1, Axis is working in a market with increased growth as well as competition. More than 14% of the total sales each year are invested in R&D, which make Axis one of the technical frontiers in the trade[201]. This is also exemplified through Axis sixth placement in an investigation conducted by KTH and Cap Gemini concerning the most innovative companies in Sweden[202]. Axis has a global market, with sales in about 70 countries through their local sales offices at 18 different locations around the world (see figure 4.1)[203].

Figure 4.1 Axis offices around the world.

[200] Periodical report January-March 2007, Axis
[201] Axis Annual Report 2006, p. 1
[202] www.idg.se, 2007.04.24

Project handling, in form of project sales or business projects came into focus about four years ago, after Axis experienced a shortage in the contacts to the end-users. They have good control over their sales process, but still not use it enough and experience shortage of feedback from the market. Knowledge are not systematically gathered and stored for future use concerning sales and markets questions regarding projects[204]. Of Axis total sell of cameras about one third is connected to projects[205].

4.2 Organizational structure

Axis does not sell directly to end-user, this regardless of their size and magnitude. The sales process is strict and an important part of Axis basic and more practical side of their strategic decisions. The structure could be seen from different perspectives, but still the fundamental are the same (see figure 4.2).

Figure 4.2 Actors in Axis nearest environment.

4.2.1 Sales offices

Axis' daughter companies, the local sales offices, are clearly defined as sales organizations and are processing the market to increase sales and to create a pull from the market[206]. The sales offices are to 100% owned by Axis and are in addition to the sell-alignment also working as local support offices[207]. The sales offices are the closest link to the customers in Axis own and original structure, which gives them an exclusive knowledge about the market and specific customer needs. This part of the network is where value is created to the company.[208] As soon as a sale made by SI or

[203] Axis Annual Report 2006, p. 1
[204] Group meeting Sales PM, Axis, 2006.12.20
[205] Ibid
[206] Ibid
[207] Interview, Mr Gabrielsson, B., Axis, 2007.01.24
[208] Interview, Mr Ekerot, M., Axis, 2007.03.09

reseller exceed a certain amount, Axis (HQ) wants to be included or notified so that they can give the customer the proper support[209].

It is the local office that gives the picture and the opportunities of the market. The extent of it can vary between offices and managers. Changing manager can open up or shift markets completely.[210] To have the sales offices spread out around the world is a condition for success and to guarantee high-class support for the customer. But the decentralization also implicates some complications. The sales offices are freestanding in some extent, but comprehensive strategies, goals and missions are constructed and negotiated by the HQ.[211] Axis fast expansion and in some regions culture-differences can make this work problematic. The Axis spirit has as well to be communicated for a further understanding of the strategies and goals. The size of the local offices can vary from one to approximately forty persons. New started offices or acquired offices are of most important in this work to develop a common company culture.[212] Axis does not see this as a problem at the moment, but the expansion can make it more difficult to maintain the Axis spirit[213]. There are a lot of important and valuable information and knowledge at the local sales offices, but no effective and distinctive channel to transmit and communicate it between offices and HQ[214].

4.2.2 Distributors and resellers

Axis distinguishes their distributors between value adding distributors and ordinary. Distributors, which seek new projects, support Axis customers and manage parts of the marketing defined as value added and gets a special discount.[215] Ordinary distributors in Axis sales process are in many cases seen as box movers. They are responsible for the logistics between Axis and customer and in some extend to hold a satisfying stock of relevant products. Even though they never are involved in the sales process to projects all the products are distributed through them.[216] This is a deliberate strategy to get all of Axis' second layer customers a fair chance to compete at the same conditions, and for Axis to focus on their core competence[217]. Earlier the distributors had a more central role in the project process when almost 95% of the projects were introduced through them, which had the consequence that the distributors could take a higher fee for their work. Today Axis tries to be more proactive and processes the system integrators, resellers and end-customer at a larger extent.[218]

[209] Group meeting Sales PM, Axis, 2006.12.20
[210] Interview, Mr Friberg, P., Axis, 2007.03.01
[211] Group meeting, Sales PM, Axis, 2007.03.19
[212] Interview, Mrs Johannesson, K., Axis, 2007.02.27
[213] Interview, Mr Gabrielsson, B., Axis, 2007.03.08
[214] Group meeting Sales PM, Axis, 2007.01.10
[215] Group meeting Sales PM, Axis, 2007.01.22
[216] Group meeting Sales PM, Axis, 2007.01.31
[217] Ibid
[218] Interview, Mr Ekerot, M., Axis, 2007.03.09

The structure of the sales process and the distributors as an intermediary makes it hard for Axis to have control over all resellers. This result in a grey mass of reseller as well as of sale. The grey mass differ between the regions and Axis tries to reduce this number by different partner programs and by encourage the distributors to store more information of their customers. The system integrators can in some cases also be seen as resellers but has a clear focus of selling and implement total solutions to projects.[219] Due to the construction of the business chain Axis does not take any risks while doing business in form of projects with the end-users, all sales goes through the distributor and the system integrator, which is working like a hedge for Axis. In return they are usually able to take a premium charge for the more risky exposure to the market.[220]

4.2.3 System Integrators

The system integrators are often the one fronting and having the closest contact to the customer in project sales. The SI is seen to be more and more important for Axis and their project sales.[221] The customers, which also can be the end-users, are coming directly to the SI, which is the first part in Axis business structure getting in contact with the market[222]. The system integrators purchases project and offer the end-customer a suitable solution. This solution could be mish-mash between different products from a various number of producers of network technology, servers, casing etc. Axis product portfolio aims to fulfil all of the customers' needs and the ambition is to offer the ability for the SI to find a total solution within Axis product range. Products that Axis does not develop them selves are bought into secure an overall solution. The portfolio strategy in combination with backing and support from Axis make the SI possible winner of projects and give Axis the ability to sell more products.[223] The amount of support and special solutions differ depending of the characteristics of the project. In some cases, Axis and the SI work side by side in order to influence the end costumer, and in other cases Axis just offers their products to the SI. How the cooperation looks like affects the interaction between Axis and the end-customer. Creation of relations to major system integrator, local as well as worldwide, generates an increased sale.[224] It is at Axis seen as a key success factor to have cooperation with the right, i.e strong and professional, system integrators in order to create the right business opportunities[225].

Axis has a number of different partner programs that intend to strengthen the cooperation among the actors in the sales process. In the end of 2006 Axis had approximately 10 000 partners in their programs.[226] This large amount of partners has

[219] Group meeting Sales PM, Axis, 2007.01.31
[220] Group meeting Sales PM, Axis, 2007.01.25
[221] Group meeting Sales PM, Axis, 2007.01.22
[222] Interview, Mr Gabrielsson, B., Axis, 2007.01.24
[223] Interview, Mr Juhlin, F., Axis, 2006.09.07
[224] Geoup meeting Sales PM, Axis, 2007.01.25
[225] KAM meeting Axis, 2007.02.14
[226] Axis Annual Report 2006, p. 16

become one of Axis most importance factors for success and has strengthened Axis local market attendance on the global market. To establish a relation through a partnership it is considered to be a win-win situation for both parts. Axis gets a broader network with reliable and trustful customers and the partners get discounts, training and support.[227] In addition of the partner programs within the sales process has Axis over 400 application developer partners, ADPs[228].

4.3 Support structure

The Sales PM group experience there is a lot of valuable knowledge and information at the local sales offices that would be of use and benefit for the company in whole. The problem is that there are no well defined channels to transfer this knowledge and information.[229] The integration between the developer side and sales is sporadic. There is no formal channel for this kind of interaction. Employees who have been working at Axis for a couple of years have often created a network within the company and know whom to contact for support or exchange of experiences.[230]

Each product manger earlier had some of the responsibility for the support of their product as well for the product itself. Thus it made an interaction between the customers, the product managers had a bigger focus on the product and had problems to see the customers' needs. When the market share increased the two-parted focus on both the product and the market became an untenable situation. Today the support or the contact between sales offices and HQ is supposed to go through the support centre, own contacts or Sales PM if it is concerning projects. This change is ongoing and many product managers have problems with letting the market part go. But as mentioned before the sales offices contact them directly because of their earlier relation and with the knowledge that they are going to get sufficient support. Knowledge and experiences that are being exchanged between them do not get documented and can thereby not get spread to other sales offices, unlike the communication that goes through the support and Sales PM.[231] There are today monthly-conducted teleconferences between the Sales PM and the local sales offices. The group is further working with a presales blogg, a website and a presales reference list, all in order to support the sales offices in their work, and in the long run generating more project sales and business for Axis[232].

The local offices have their own local technical support to their customer, but also one centrally located at the HQ in Lund for Europe. This support is both for the customers as well as for the local offices. The local offices can also contact the members in the Sales PM group as well, were each member has a specific region that

[227] Group meeting Sales PM, Axis, 2007.01.25
[228] Axis Annual Report 2006, p. 16
[229] Group meeting Sales PM, Axis, 2007.01.10
[230] Interview, Mr Höllering, M., Axis, 2007.03.08
[231] Group meeting Sales PM, Axis, 2007. 03.19
[232] KAM meeting Axis, 2007.02.14

they are in charge for. This constitutes only one interface for the seller to contact when having problems. Sales PM has good knowledge about Axis' products, but they have in particular a great network of persons whom they can contact themselves or arrange the connection for the seller.[233]

The support departments at Axis uses a tool called Customer Support Tool (CST), which work as a database were all cases concerning problems from the market are stored. Complications stored here are not linked to a specific project or customer. Today there are some problems to sort, structure and search for sufficient information in the CST-system. Information in the system could be used as a good source concerning customer needs when developing new products and to see synergies with other projects or problems.[234]

4.3.1 The CRM

In Axis organization there is a landscape of different tools and systems concerning information handling[235]. Axis CRM-system is mainly constructed as a sales supporting system. Unfortunately has this system not been used, in the past, as much as Axis desired. If this depended on low interest from the users or the configuration of the system is hard to tell, but there are a lot of knowledge in the local offices that the whole company could take great benefit of. The background to the development of the CRM-system was the idea to create a working system for logging contact information and information about projects. Though the main reasons often are seen to be the development of a more structured way to see and confirm discounts connected to project sales. The system is developed in-house at Axis and is regularly updated and improved after the company's upcoming needs. For example has recently partners been able to insert information to the system concerning projects which speed up the sellers work.[236] This is made through what is called the Partner Pages where some partners, as mentioned, by their self can insert adequate information, which in turn are received and developed by the local sales person from Axis[237]. There are two reasons why Axis has chosen to develop the system in-house. First, it is easier to develop and scale up a system than scale down an existing system from a third part to the company's explicit needs. Secondly CRM also work as an internal integration tool why the in-house development is necessary and valuable. The system gets improved and updated on the basis of requests from the user as well as from the board. CRM is deliberately limited to the most important functions and is developed to suit the board as well as the users.[238] CRM is a web-based database, which makes it dependent of broadband access to the Internet. This varies between countries, which has had as consequence, that the system is slow and poorly used in some regions.[239]

[233] Interview, Mr Liebrich, C., Axis, 2007.03.09
[234] Interview, Mr Friberg, P., Axis, 2006.09.15
[235] Group meeting Sales PM, Axis, 2006.12.20
[236] Interview, Mr Gabrielsson, B., Axis, 2007.01.24
[237] Interview, Mr Höllering, M., Axis, 2007.03.08
[238] Interview, Mr Hansson, J., Axis, 2007.03.20
[239] KAM meeting Axis, 2007.02.14

The figures and information stored in the pCRM-system can not be changed by the seller when the price has been set. Only the manger of the sales office has the obligation to do so. This can lead to complication when parameters concerning the project changes over time.[240]

Each employer at Axis should not have more than one or two systems to work with. Because of the complexity with many different systems has Axis an ambition to create a cockpit-structure where different events would be enlightened. CRM is planed to be a central part of this structure.[241] To be able to give a special or discounted price the project has to be registered in pCRM[242]. The local managers then approve the price and lock the project. This aggravate for the users of the system to change information after the price has been set and approved[243].

4.3.2 Success stories

Axis and Sales PM has an ambition to build up a base of success stories. This would be done through the pCRM-system where information concerning the projects is getting stored. Projects with an interesting characteristic would be complemented with further information both during and after the project, which later makes it possible to use it as a success story. Axis is today already working with success stories both in a marketing purpose, but also as support internally. There can sometimes be a problem to get hold of sufficient information and permission to use this information externally, from the system integrators and the customers, why the quantity of stories is limited.[244] An example of success story can be found under the headline 4.6.1 *Requests*.

4.4 Perspectives

The situation in general will be enlightened through a macro perspective from the company side, but also from inside from the perspective of the Sales PM group.

4.4.1 Axis and HQ perspective

Axis has a stated mission to offer the market intelligent network video product solutions for professional installations. In the short term perspective is the goal to maintain and strengthen the company's market share at the network video market. Analyst expects this market to grow by approximately 40% yearly the five next coming years.[245] Axis has thereby a goal to grow five times their turnover in five years, which would be achieved if Axis grows at about the same rate as the market. This is a well expressed goal which in-house is mentioned as 5x5. To fulfil this goal

[240] Interview, Mr Ekerot, M., Axis, 2007.03.09
[241] Interview, Mr Hansson, J., Axis, 2007.03.20
[242] Group meeting Sales PM, Axis, 2007.01.25
[243] Interview, Mr Höllering, M., Axis, 2007.03.08
[244] Group meeting Sales PM, Axis, 2007.04.27
[245] Axis Annual Report 2006, p. 4

has Axis a complementing goal of growing three times in number of employees during the same time period. To achieve the goals Axis continues their strong focus on network video and offers a broad portfolio as well as a dedicated collaboration with their partners.[246]

Other goals for Axis during the first half of 2007 are to increase their sales compared with the same period last year and in order to do so expand the sales organization. Axis also plans to improve their efficiency during this time and launches of new and improved products. Changes and improvements will also be done of the internal infrastructure and the handling of customer references.[247]

4.4.2 Sales PM perspective

The purpose of Sales PM is to work with sales support in projects, in order to increase the efficiency and assist with contacts and info. This both of a soft and hard character. Sales PM knows were to get the information, and will find it, even if it partly can results in some treaded toes. Sales PM will be a part in Axis aim to win and getting more project sales.[248] The group was founded when the product managers' focus shifted to be more at the product and less at the customer. Sales PM became an interface between the technique and the market.[249]

The projects are formally ended when the installation is done. Axis normally counts to get the opportunity to deliver more than the original deal, for example coming system upgrades or increased installation size.[250] It is hard to exactly define what constitutes a project while there are many different aspects to take in consideration, but also that it is quite open for individual interpretation. Sales PM is supporting the sales offices in order to make it easier for the involved parts, but also with the aim to create opportunities for a successful project sale. To managing the expansion many of the group's objects and working tasks have to be in form of standardized flows[251].

4.5 Human versus Technology

The information in a database system will not be better than the information put into the system, while motivation and understanding are important aspects[252]. The technical system used today, pCRM, is contextualising experiences and hints about possibilities for closure of a project in a percentage number. The estimated percentage is how it is measured before input, and the number is once again interpreted when taking information out from the system.[253] The function to just put in and take out

[246] KAM meeting Axis, 2007.02.14
[247] Intranet V, 2007.04.20
[248] KAM meeting, Axis, 2007.02.14
[249] Group meeting Sales PM, Axis, 2007.03.19
[250] Group meeting Sales PM, Axis, 2007.01.25
[251] Group meeting Sales PM, Axis, 2007.03.19
[252] Group meeting Sales PM, Axis, 2007.01.10
[253] Group meeting Sales PM, Axis, 2007.03.13

information from a database is not particularly difficult. It is aspects like the possibilities to search effective and correct, and have a coherent valuation that is challenging and vital for the usefulness[254]. Situations more explicit connected to Axis and their use of databases and computer system for information handling will be presented further down in chapter 4.8 *Survey result.*

Problems connected to databases and use of these could in many cases more correctly be seen from an organizational view rather than from an interface perspective. The information inserted in a database should as a rule always be standardized. If it is about creating routines for input, use and spreading of information it is important to communicate in the organization where this information could be found. When searching in a database, it is only presented what hits are found, not what is missed. That is why inverted databases could be used to visualize and down scale the amount of data in a more controlled way. The interface is important to facilitate the search function, handling and incorporated information so it can be understandable. Text is naturally good to present detailed information and figures and graphs to create a quick overview. It can be seen from a micro or macro perspective, where details, in form of text, first appears after an expressed action from the user. How the data is inserted and presented is conclusive for the function of the database. The way the information is coded, and the fact that it will be coded consistently of all in the organization is of major importance.[255]

Database systems have not made it directly easier with archiving, but it has enabled the users to insert more complex data, which in turn cause new problems finding what really is requested. Again, it is important to find routines and to find a solution how to use it. Standards and routines have to be the same in the whole organization; things must mean the same everywhere. Parameters to chose among are to prefer, and also, if possible, to mark if it is to be seen as an absolutely truth or not. Keywords and agreements are vital concerning use as well as implementation of a new system. It is relatively easy within a defined organization while it is more clear who the users are and it can be communicated what benefits it would give the users. If it is unclear with the advantages and function of the system, it will be hard to implement, regardless how well the system is working.[256] All companies are working with data base systems in one-way or another, but in what extent and the purpose differs. For example is the construction company Skanska working actively with database system with the aim to rationalize the internal flows of information and a part in the teaching of new employees. It will be more discussed in chapter 4.7.

4.6 Current work

Axis is working actively to improve the internal structure and to collect information and experiences from the sales offices, which are the part in Axis closest structure to

[254] Interview, Mr Haake, M., LTH, 2007.04.02
[255] Ibid
[256] Ibid

the market. As a part of this, a conference for the Key Account Managers from all subsidiaries was held in the beginning of February 2007 in Malmö, the first of its kind. It served as a good arena for experience exchange through workshops and meetings. During the presentations, different views were explained and motivated. For example the importance of working together, sharing information and best practises. Because of the offensive expansion goal (5x5) it is of value and interest not to re-invent the wheel from time to time. There were also thoughts presented about a wish to be able to prioritize different markets and provide for the customers needs and expectations. Further were the importance explained of inserting all projects in the pCRM.[257]

Monthly meetings, in form of teleconferences, are held with the different sales units around the world. This to address Sales PM's working scope, of importance to a functioning and effective sell-process and to spread information that can be of interest to the person working directly to projects. It is one of few pure activities or meetings focused on just sell. Experiences from these meetings are that there are big divergences how different regions are working with matters connected to project sales. Further, the advantages of focusing on aspects like information gathering are not always clear for the users.[258]

4.6.1 Requests

The request and expectations about the function of Sales PM, but also concerning information flow and exchange in general within Axis, are many. Some are presented in this section, but there will also be a number of them enlightened in the coming chapter 4.8 *Survey result*.

Many interesting and relevant topics where introduced and brought to the agenda for Sales PM and Axis in general at the KAM conference in Malmö. Some of the thoughts mentioned at the meeting were the following; an information overflow is sometime experienced at the local offices, it can be too much information time to time from HQ in Lund. Cross-region matters, country selling, success stories (see *Example of external success story* below) and references are of great interest for many to take part in[259].

[257] KAM meeting Axis, 2007.02.14
[258] Group meeting Sales PM, Axis, 2007.01.10
[259] KAM meeting Axis, 2007.02.14

Example of external success story

An Axis partner has together with a car park company initiated and designed a pilot project to investigate improvement for the management of multi-story car parks houses. Today there are some standard methods to identify the number of car parked and free spaces through ground indication sensors. But these are not so exact and are connected with a relative large error quota. This means there can be five to ten percent of free parking lots, even if the system declares the car park to be full. This fallacious information implicates a profit lost for the car park companies. To solve this problem, a combination of Axis cameras and an intelligent software system were introduced. The cameras are observing a number of parking spaces and can through the software analyse, depending on differences in the colour spectrum, decide if it is free or not. Further on the cameras can be used to decide exactly for how long a car have been parked, and could work as "evidence" how long the parking space have been occupied and therefore correctly charge the utilizer.

Internal information, Axis, 2007.03.16

The newsletters could be divided into different parts after interest and vertical or other segmentation bases. Another way could be to specify and address the letters to the receiver, perhaps from a matrix minded base. It would give opportunity both to receive more specific and relevant input, but also that several could be involved and inserting important input to the newsletter.[260]

The motive is that a homogenous method should be used all over the world for information gathering. This to create stringency and gain advantages from large-scale production. Thus is Axis not a HQ of an American style who forces all subsidiaries to do something in a certain way. The motivation to use the system is seen from Axis side to be of importance, and therefore some minor local adjustments could be accepted[261].

Another proposal was to give all new employees a welcome package, for example containing a list of contact information to relevant persons. The importance to have well functioning filters, if some form of web based solution is the topical solution, were explicitly mention to be of magnitude. This also enables the site to be a living and a dynamic document that invites use. The situation is similar when using bloggs, filter as well as search engines have to be effective to gain users. The blogg could also be effective to enable some form of interaction with a faster feedback on stated thoughts or problems.[262]

[260] KAM meeting Axis, 2007.02.14
[261] Group meeting Sales PM, Axis, 2007.01.10
[262] KAM meeting Axis, 2007.02.14

4.7 Benchmarking

As mentioned in chapter 1.5 *Focus and delimitation*, the German market, or more correctly the work within the DACH-region, can be seen as quite representative for the European market, and will therefore in some extent work as an internal benchmark. This because there is no conclusive differences from a cultural view and also the fact that differences are more likely to be based on aspects like time to use the CRM-system and to developing new contacts than physical[263]. To get a broader view and enlighten interesting aspects from other trades, benchmarks have been used.

4.7.1 Skanska and The Swedish Road Administration

Aspects connected to information flows, project prioritization and exchange of experience are important matters for many companies. This not at least in times were the demographical structure results in retirements and new recruitments where the successor has to be taught rapidly[264]. The focus in the thesis is to Axis, but there is though learning's to gain from other companies in other branches and how they have handled these situations. The Swedish Road Administration has a long history with projects, project based work and prioritization matters. For example are they taking decisions for new road projects from an analysis grounded from a national economical view[265]. In the calculation tool used at the administration, parameters, for example travel time, cost for maintenance and accidents, are transformed into money. Also more intangible values as number of deaths or reduced noise disturbance are calculated and taken into economical and prio consideration. Other parameters hard to grip, are dynamic parameters as possible growth in the adjacent region or if it are in correlation to the more overall aims and strategically choices done. These parameters are not transformed to money but are seen as an extra part in the decision situation.[266]

Skanska are actively working with knowledge incorporation and different forms of databases to create presumptions to store and exchange information between employees. The answers regarding Skanska's work will be focused on Skanska Hus Syd Sverige. At Skanska there is quite a frequent use of the databases. Otherwise it will soon be more difficult for the users to find the right location or folders in the system. A lot of databases are connected to each other and some are working as shortcuts to other. Possible problems with databases are seen as peripheral, well exceeded by the advantages connected to the use of databases. There are developed guidelines and directions how to use the system, about inputting information and then interpreting the outcome information.[267]

[263] Interview, Mr Roobol, E., Axis, 2007.02.13
[264] Interview, Mrs Gotthardsson, H., Företagarna, 2006.04.19
[265] Interview, Mr Persson, M., LTH, 2007.02.27
[266] Interview, Mr Nilsson, B., The Swedish Road Administration, 2007.03.26
[267] Interview, Mr Håkansson, G., Skanska Sverige, 2007.04.16

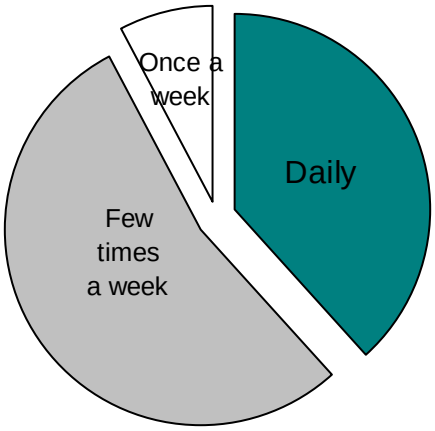
4.8 Survey result

A survey was sent to managers at Axis local sales offices. Despite the focus is on Europe an aggregated opinion from around the world is of interest for Axis and the thesis. The material has been gathered in a way which makes it possible to separate the persons who have participated and trace which local office the person represents. Each manager has been responsible to forward the survey to relevant persons who work with project and has experiences of both the CRM-system as well as the sales process. The survey has been carried out electronically, which allowed those who participated to fill in their answers in an attached file in an email, and then return it directly by pressing the send button (*Appendix I*). This made it easy to take part and the participation should not have taken longer than five to ten minutes. Seventeen managers received the survey, which resulted in thirteen answers. Two answered that they because of lack of time or technical problem could not be able to take part. Those who have responded have been working at Axis from a couple of months to eleven years that gives an average among them of 4.4 years of employment. How long the responded have been working at Axis can influence the answers because of differences in experiences and knowledge.

According to the survey the definition of the notion *project* differ both regional as well as from person to person. Some point out the importance of an identified end-user, a budget, a time schedule and clear offer, while others just define it from the amount of products or a fixed price. The indistinct definition of projects results in a general unsureness.

4.7.2 Experiences of CRM

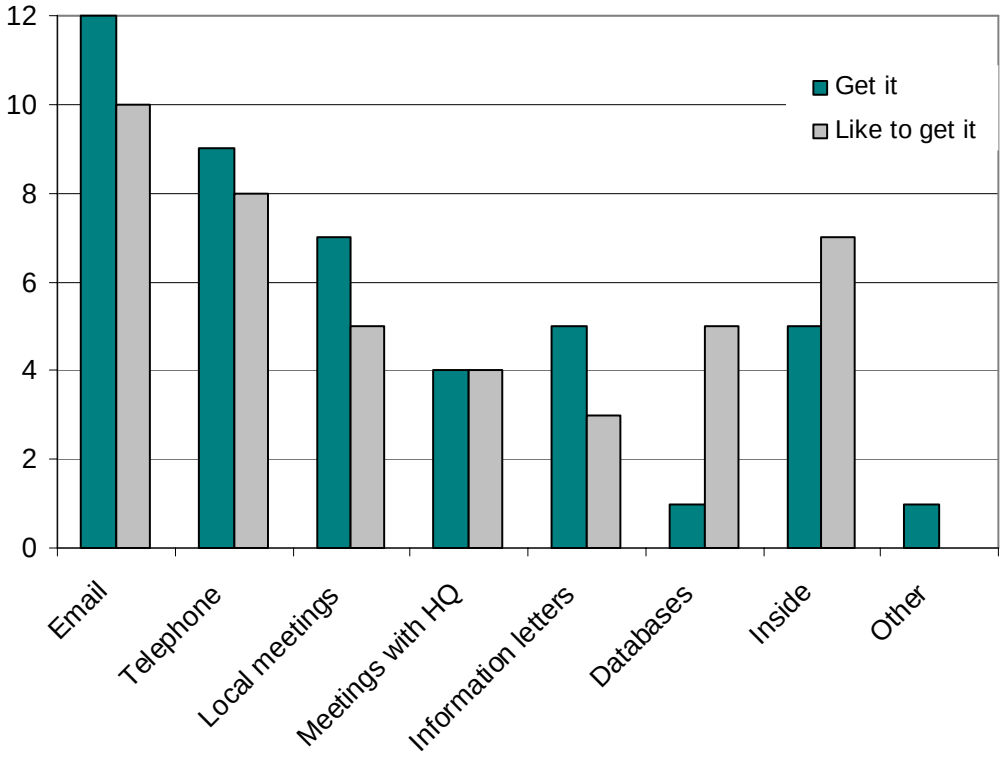
Of the thirteen who have answered five uses the CRM-system daily, another seven uses it a few times a week and one of them only uses it once a week (see graph 4.1). No one has chosen the alternatives; once a month, few times a month or never. The experiences of the system are neither good nor bad, but those who use it less frequently are more satisfied than others. In the survey is the asked persons questioned both on what they base the parameter for probability of success as well as the estimated priority of a project, information that is stored in the pCRM. The percentage of probability of success is stated on a scale from 0 to 100% and the prior is stated low, mid or high. These parameters are later used for prognosis of expected demand at Axis HQ. By the answers from the survey can no implication be drawn, because of the differences in the answers. Axis has today no guidelines of the scale of probability, instead each person or offices make guidelines of their own or just base



Graph 4.1 Extent of usage of CRM.

the figures on their gut feeling[268]. Experiences from earlier projects and the result of these is one mentioned base from which the probability is stated, how far the sale process has come is another.

Eleven out of the thirteen see potential to improve the system both according to pure user friendliness with a more logical interface and higher speed to better search possibilities among projects. A more flexible system, possibility to change information after it has been stored and as well as link and connect information about sale and contacts are requested. Six out of the thirteen uses excel as a parallel tool to the pCRM to get a clear view of projects and pricing of projects. The opinion concerning Axis competitive advantage varies among the managers and the sellers. But Axis focus on the network technology, the product portfolio, the quality and the high level of customer support are recurrent statements. Also the channels through which products are being sold, the business model, the effective partner programs and the openness at Axis are mentioned.



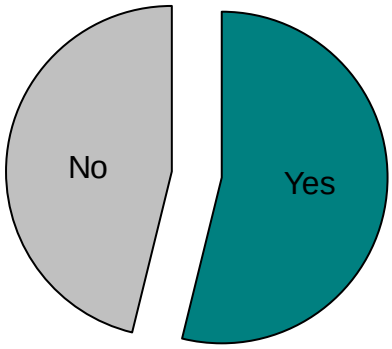
Graph 4.2 Channels for support and information.

[268] Monthly meeting, Axis, Munich, 2007.03.09

4.7.3 Support and information handling

The experience of Sales PM is solely positive. The extend to which the group is used differ among the offices, but those who uses the group more frequently stress the group's responsiveness, great knowledge base and willingness to help. The variance in which the group is used can depend on the difference in need of support among the sellers. The demand of support and information can accordingly to the survey be quite comprehensive and include everything from marketing, new products to information concerning availability of specific products. But the majority also request information and support concerning improvements, bug fixes and timelines for these as well as technical support for specific projects and information about major projects in the region. On the question through which channel they get support and how they would like to get it, twelve out of the thirteen answered that they got it through e-mail, but only ten of them preferred this channel. Information through local meetings, info letters and telephone got the same kind of result, the participated whished less information through these channels. More information than today through Inside and databases were asked for while the amount of information and support through meetings with HQ had a stable level. For more detailed information see graph 4.2. One of the asked commented the good quality of the information and support that is available. Other pointed out the importance of direct and easy access to information and project managers or a single person or group to contact to get help with questions and needs. Critic against gathered information could be deduced through the survey that information through e-mail, letters, Inside or HQ easily gets generic. The participated are satisfied with the good response from HQ, but there is a request for an internal forum were the local offices could get immediate answers.

Seven out of the thirteen store information from earlier projects for example considering specific technical solution, description of product configuration, price, competitive information and name of end-user and partner. Some even archive emails in outlook related to specific projects. Thus is information primarily stored in CRM, excel- and word-files on the local computer. Those who not store information do so because of the great amount of projects, lack of time or shifted focus to next or other ongoing projects when the project is finished (see graph 4.3).

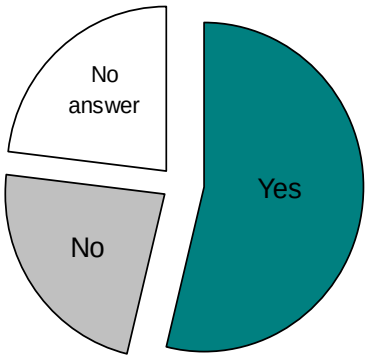


Graph 4.3 Storing of information.

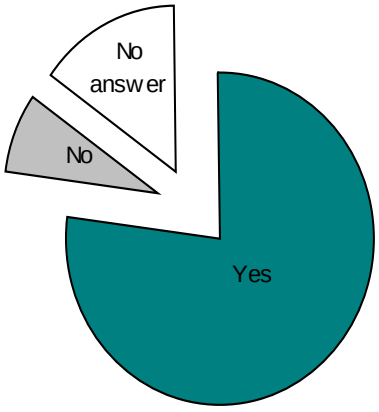
There is only five out of those who store information who reuse it in other projects, but there are also two who not store information who answers that they reuse information. Three out of the six who answers that they do not store information have chosen not to answer whether they reuse information or not and one person who stores information has answered no on the question considering reusing of information (see graph 4.4). The information that is being reused to other projects is

mainly concerning pricing and technology but also customer stories and information about end-user. The information stored and reused is naturally often of a general art that can be applied on a wide range of projects, but also of a more specific focus at special vertical or type of project.

The contributors have answered that sharing of information, if possible, mainly occurs locally, but it also anticipates globally when someone ask for it. Ten out of the eleven, who answered the question whether they would like to have information from earlier projects made by others, were positive. Two did not answer the question at all, and one was not interested in that kind of information (see graph 4.5). Databases and pCRM were suggested as well as Sales PM as channels for this kind of information. Possibility to search on common parameters or name in pCRM and prior projects area, with details such as scope of projects, time frames and competitive products were other suggestions.



Graph 4.4 Reusing of information.



Graph 4.5 Demand for access to information from earlier projects.

The answers according the personal connections to other actors within the sales network varies a lot between positions and destination. The connection to HQ occurs mainly through email and phone at a daily bases for five of the respondents, weekly for two and monthly for six of them. The support department is by some used daily while others have no contact with them at all. Almost everyone has daily to weekly contact with Sales PM except one whom only has contact with the group through the monthly telephone meeting. The contact between the local sales offices is monthly to rare or totally absent among the asked. Yearly meeting arranged by the HQ, for example KAM, is for some respondents the only physical meeting with colleagues from other regions. E-mail and phone are otherwise the channels most frequently used between the offices. Project sellers have a daily contact with both distributors and system integrators while mangers have more of a weekly relation. The contact with ADPs and end-customer varies as well depending on and where the responded is stationed in the sales process. Some sellers have a daily contact with end-customer while others are in contact with them a few times a week. Obviously depends the contact to end-customer on project activity, which can influence the relation to be from a couple of days a week up to twenty

times. All except one of those who took part in the survey has knowledge of which ADPs that are related to each specific project.

4.8 Empirical reflections

The methodological choices done in earlier stages are correlated to the gathered empirical data and pros and cons associated with these. Aspects mentioned before, for example, influence from the choice of respondents or how the questionnaires were designed, are in this phase more concrete influencing the study. The answers could be unfair by the selection of respondents, mainly done through recommendations. The local managers have answered the survey on their own or forwarded the questionnaire to the one in the organizations most relevant to take part in it. The frequency of answer will in turn affect the usefulness and aspects like validity and reliability. The reliability are hard to investigate, but the information are compared to other sources of information and are processed in and analytic way. The topic issue with someone inserting information in a system that is afterwards taken out and interpreted by a new part, is also the same situation appearing in this thesis. The survey design is constructed with deliberate thoughts, and even if some light guidelines are given, there is space for individual interpretations. The inserted information are afterwards analysed and interpreted by the authors. Even if the meaning of course is to correctly mediate a relevant picture as possible, there are always risks connected to this kind of situation considering what are the mediated portrait, and the correlation to the original intentions from the respondents.

4.9 Summary

The amount gathered empirical materials are considerably, but only the most relevant have deliberately been picked out in order to not overwhelm the reader with information, even if interesting, but not directly relevant ditto for the stated purpose of the thesis. Primarily sources have been of great importance in this chapter, but also secondary data have been used in some extent. There are a lot of important and valuable information and knowledge at the local sales offices, but no effective and distinctive channel to transmit and communicate it between offices and HQ[269].

[269] Group meeting Sales PM, Axis, 2007.01.10

5 Analysis

With sources in previous chapters the situations will here be discussed and penetrated in order to give a profound analysis of the current situation. This with the aim to answer the stated problem and reach the given purposes of this master thesis.

5.1 Structure for the analysis

The structure of the analysis will mainly follow the composition in chapter 3.9.1 concerning the theoretical framework. As mentioned previous in the thesis the mindset will be from a three-folded base. The raised situation will be founded in a general view aiming to reach the first stated purpose. A discussion more related to the case study object, will be done integrated and parallel, in order to give answer to the second purpose. The mixture of general and situation specific reasoning will result in conclusions, in line with the purposes, focused on a theoretical as well as a practical view. The link between knowledge and growth will be discussed, as well as other parameters related to expansion in this kind of environment.

5.2 Network Theory

The structure of the sale process in the present case study can be found in many other companies. There is a great opportunity to work close to the end-customer and to take part of the after sale with services and installations. Even though several focus on highly efficient operations, which demands a clear view of value adding actions within the own organization. A company's network is critical for their success. Many companies, in the same way as Axis, build up the operation around their network which makes them strictly dependent of this environment.

Figure 5.1 Axis sales process model.

The structure of Axis sales process is strategically chosen and offers a number of benefits concerning the risk taking and the logistics (see figure 5.1). Axis freely disclaims parts of the revenue in services and aftermarket to be able to focus on their core business. This focus has taken Axis to where they are today

and it is probably their major competitive advantages. But the chosen sale process also distances Axis from a natural contact with the users of their products. The fact that Axis products often only constitute a vital part of a complete solution makes it important to communicate their portfolio. Partly to market the brand but mainly to create a contact and relation with all of the involved actors of the network. The commitment to follow the steps in their distribution model sends a signal of credibility and long-term relations to the actors of the process. This makes Axis a devoted actor of their network. The focus and clear delimitation to develop new and competitive products for the market and to sell these in an efficient way makes Axis part in the network model quite clear. Axis has an open culture and invites to close cooperation's and long term relations. The network they constitute with their partners is a foundation for current and future business. In a network like Axis', with each actor clear focus there is a mutual dependence.

The flow of products through the process occurs from top to down perspective (see figure 5.1). This makes the stream of products relatively easy to get hold of, but this are followed of a broader flow of support, information etc. The flow upward in the model seldom reaches further than one level because of the incomplete channels in this direction. The current sales process model is of course a simplified picture of the reality and there are many informal connections of information exchange between the actors in the model. The connection between them are not distinctive, instead information and experiences are transferred through informal channels, which have been developed during a long-term relationship. Axis owns the first two parts of the model but is only related to the rest through partnerships. This gives a network of flows both internal and external. The internal part of the network shows the interaction between the HQ in Lund, the different departments and the local sales offices around the world. The external include the rest of the sales process.

5.2.1 Internal

The information channels at Axis HQ are short and the possibility to transfer information physically is easy depending on the number of employees gathered at the same place. The Axis culture is naturally founded and developed here and strategic decisions made by the board are done in this environment. At HQ are all departments of Axis gathered except the local sales offices. This makes it possible for interaction between the departments and to integrate with colleagues face to face. This enable, for customers and sales offices, fast contact and sufficient help when the support seldom is more than two phone calls away.

To have the sales offices decentralized is of importance to be close to the market, but it complicates the transfer of information, knowledge and culture. It is a matter of course that the sales offices are placed like they are, but it is important to be aware of the complications it brings. The fact that the connections from HQ to the other actors in the network in most cases are indirect and goes through the sales offices limit the transaction of knowledge. The sales offices easily work as a filter, in both directions for transferring of knowledge and information. The internal network between the

sales offices is absent or informal. The sales offices distinguish from each other depending on a number of reasons. The regional environment is of course a natural difference, but the local manager has also influence on the situation. A high focus on the own region affects the willingness and interest in exchange of knowledge and experiences. Sales PM has thereby the important role to be a natural interface between HQ and sales offices as well as between the different sales offices.

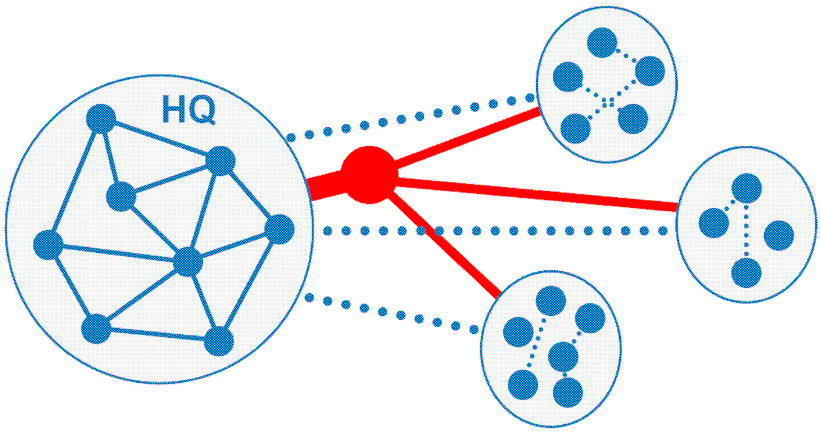


Figure 5.2 The internal network between departments at HQ and the three regional operation areas; APAC, America and EMEA. The red spot in the middle is representing Sales PM with direct connections to all actors. Dotted lines are illustrating informal contacts and the lines illustrate direct contacts.

5.2.2 External

The straight flow in the process (see figure 5.1) encourages structural holes. Though it is, as mentioned before, a strategically chosen position from Axis. Instead of maintaining the relations to all of their customer by themselves, they accept a small revenue lost to let other actors in the network take care of this part. All of the actors in the network have a strategically chosen position and base their business on this. Because of the network structure each actor occupy what could be seen as a structural hole in the product flow and can thereby benefit from the resources that flow through them. The distributors and the resellers are in many times pure middlemen and provide no credit value for the customer, but have a further network, knowledge and connection to the end customer. The system integrators on the other hand provide value to Axis and the customers by integrating Axis' products in a larger solution. This role demands a further interaction and a relation, which is supported from both the HQ as well as from the local sales offices. Axis has no structural connection with the end-parts of the model than through their support department.

The channels between the actors in the external part of the network, involving the resellers, are weak and the interaction and transfer of knowledge is minimal. This depends on a low interest and a clear focus on a high flow of goods and their core

business. In the other part of the chain, the one involved in projects there is a bigger interest in exchange of knowledge. The sales offices often have a direct connection to the system integrator and exchange resources in form of product experience for knowledge concerning the customers' needs. This kind of exchange is the most effective way to overcome these structural holes. Axis different partner programs tie the actors in the network closer and are attempting to increase the resource interaction between them. The position as a central initiator in these cases and founder of the relations creates a possibility for Axis to gain an information advantage. They see an improved value in the chosen position with their focused core business, but tries with their open approach to get hold of other actors' knowledge. In this case it is primarily their knowledge about the market and the customer that is of interest. All kind of resources and paths has a value, and good knowledge of the company's environment is sufficient to stay competitive.

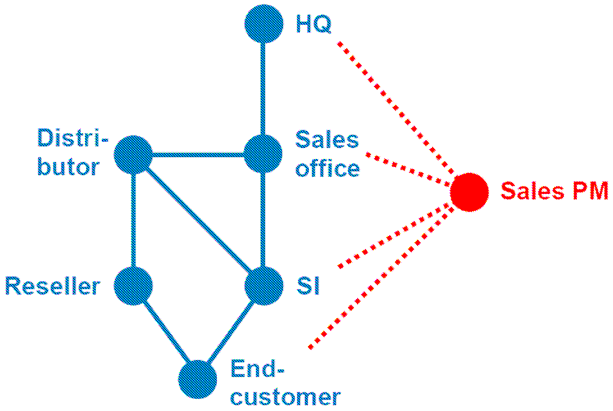


Figure 5.3 Sales PM's role as a spider in the web and provider of knowledge and connections.

International networks like the one in the case study easily get complex. Operations in many different countries and constantly new market entries demand good knowledge about the present area and the actors operating there. A decentralized structure creates nearness to this market and important channels within the local networks. Axis' attendance in many different countries creates knowledge that could be shared among the entire organization. Sales PM's role in external and international network as a spider in the web gives a balcony view and the possibility to improve the process, give adequate support as well as to gain knowledge and spread it within the organization and among the actors in the network (see figure 5.3). Axis' products are not unique and the company has to deliver more than just a product to win projects. The company's knowledge strengthens the product both in the development process as well as in the sale and after sale process. It is the knowledge gathered in the firm which makes Axis competitive and the importance to get hold of this knowledge increase when the market and the competition grow. The knowledge within the network correlates with the capability to expand at the market.

The chosen segment of Axis' network in this thesis only represents the part of the sales process against projects, from Axis' perspective. This limits the complexity because of the bound to the number of actors and the fact that the structure looks the same in all present regions. A more detailed view of the network and each actor would have given a higher complexity but also enlightened the possible attractive resources surrounding this network.

5.3 Knowledge Management

An open approach and informal channels promote an environment of high level of knowledge sharing and replication. Integration between internal departments and external actors facilitate the exchange of tacit knowledge. Knowledge is here developed over time through experiences and interaction with others. A higher degree of knowledge at a company that has been active in a market for a while compared to new entries can be seen as a resource. The organization's capability to manage this knowledge could lead to competitive advantages.

5.3.1 Exploitation and application

Partner programs and benefits from relations with different actors and customers on the market automatically increase the stock of knowledge available for the organization. Both explicit and tacit knowledge can be gained through these channels. Explicit knowledge in the daily contact and tacit in a more close relation to the field. Partner programs give a direct contact and feedback which is important in product development, but also an insight to other actors operation and the possibility to get hold of desirable resources. If knowledge within an organization is seen as a resource the application and conformation of it can be seen as a capability. In a fast growing or shifting market there is seldom time or possibility to store information and knowledge in a sufficient way. The importance of relation and easiness to develop contact is at these markets of importance in order to transfer knowledge and exchange experiences. In other words could the time and money spent at tools for generating and maintaining knowledge better be spent at networking and informal relations among the organization. This is the only way tacit knowledge as a resource can be shared among many. Though, to be able to grow as a learning organization explicit knowledge has to be stored as well.

The work with knowledge management is partly ad hoc while there is no obvious structure for incorporation of knowledge. In Axis' case is knowledge developed through each project, sales project as well as through internal projects. Resources in form of knowledge among the different departments integrate together and generate something larger. Information stored in their different systems concerning support and sales are often just parameters, but efficient storing, routines and structure of the information generate as well knowledge for the organization. A common problem is though the ability to share and present this knowledge further. Information and knowledge easily gets stuck at one place and the problem is then to move it further through the organization, network or from the medium containing the knowledge. This is where the intermediate work from the Sales PM is relevant in this view.

Knowledge stored among employees and within the firm is probably one of Axis greatest resources. It is easy to underrate this resource, but without the capability to take care of this and share the resources inside the network it is impossible to attain sustainable competitive advantages. Sales PM's contact through the whole network

but mainly towards the sales offices pull information and knowledge up to the HQ and then push it back again, structured and integrated with strategies and knowledge from all other parts of the network. Informal channels between the actors are invaluable, but they do not secure that the whole organization get hold of the same information or knowledge. This claim a devoted actor like Sales PM that have a wide focus to achieve this kind of spider role to close this form of structural hole or want of connection to convey knowledge.

5.4 Resource Based View

Focus on core business and management of resources is of importance in an organization which is active at a fast growing market. If resources are not used effectively there is a risk that the growth on the market will correlate with the growth in size of the company and no synergies or higher profit will be earned. Tangible resources are of value, but could rather easily be achieved through acquisition. Axis' strategies, with outsourced production and logistic chain make their physical capital resources less critical for an expansion. Growth demands focus and efficiency, which requires proactively and sales project prioritizing. Resources have to be taken care off to stay competitive over time in an expanding company and market. Important resources can be found both internally and externally. Resource based view usually focus on resources within the company, but the network theory put this approach further and include other actors in the network resources as well.

5.4.1 Market developer

As in all high tech markets the technology gets more and more advanced and innovation is necessary to stay competitive and to be able to develop the products of tomorrow. This motivates a high level of human- and organizational capital resources. To stay competitive Axis encourages innovation and cross-fertilization between different departments and actors in the network. It is a great capability considering the amount of knowledge and experience that are gathered within the organization. The role as market developer has also given Axis a lot of experiences during the years and despite the technical development their historical background in combination with the market can be seen as a capability.

Axis early presence at the market did not result in favourable economic profits. The surveillance industry is conservative and in some extent moderate, Axis had to push their products out on the market. Adaptation had to be made for their products to suit the technique of analogue camera surveillance. Axis had good knowledge of the network-based products because of their earlier portfolio and parts of their already gained network could therefore be used. The market which Axis operates on must be seen as quite homogenous which makes their position as first mover less important. There are no directly unique physical resources or strategies that competitors can not copy, but Axis devoted focus on just network video products holds the major competitors at distance. Players like Sony and Panasonic has product portfolios containing products for a wide range of industries, which makes it harder for them to

focus their resources to a specific product group. Axis operation is bounded to a small area, the network video market, and by distinctive sales model and strategic position in the network they manage to sustain their focus on their core business. Nevertheless is it difficult to share these resources and guarantee that they are being used in the most sufficient way.

The human capital resources at Axis with all the knowledge of the technology and market among their employees could be seen as a competitive advantage if used correctly. A presumption to reach this advantage is to use the organizational capital resources effective. The capability to manage the resources is clearly correlated to available systems being used within the organization for storing and exchange of knowledge.

5.4.2 Spider in the web

Sales PM's continuously contact with the local sales offices in combination with their good access to persons at the HQ, creates a good apprehension of available resources within the organization. Although their own knowledge and integration with other parts of the sales network also creates valuable information of the network's joint resources. Sales PM can thereby be seen as a capability in combination with an important resource. Sale PM creates the potential to in an efficient way improve and grow the company in size, and not just their focus part, sales and support towards projects, but the entirety company. The group's role is not unique or rare, but their work makes them valuable and what they accomplish can not be imitated, even if their physical work is possible to copy. Sales PM as a group and their work creates an indirect value to the company. Their primary work is focused to support the sales organization, but their work also result in interactions between the actors in the network, both internally and externally. The role as relation constructer forces the exchange of resources, which creates value for the entire chain. Their balcony view and their network of contacts create the right capability to transform these resources to competitive advantages. Groups like Sales PM that creates the possibility to gain knowledge could give clear positive effects in companies. It can be hard to set a value on the spider role and therefore it is easy to see this kind of groups only like a financial expense. Consequently the group has to have the management's engagement and trust from the employees. Without this the group's work will have no penetration and affect in the organization or the business process.

5.4.3 An external Resource Based View

The resource based view is usually focusing on the internal resources of the firm. However in a globalized environment and focus on core business, resources controlled by others gets more and more important. Axis has the capability to develop high-class products within the network camera market, but needs resources from their network to do so. The flow of resources has to be in both directions and the exchange must be mutual to strengthen the relations of the network. If the exchange could lead to an interaction of each others' resources the network would automatically grow stronger and be a competitive advantage in itself. This kind of sales process is also

dependent on each other's further connections in the network. Axis offer a product but to strengthen their relation they also offer a partner program with extended support to be sure they get hold of desirable resources and that their product gets exposed to the end customer. In other words, Axis does not primarily compete with the actors within their network. Instead they compete with their network against others.

5.4.4 Existing knowledge as a capability on a moderate market

The market for network cameras is moderately dynamic. It frequently changes, but do so over time and along roughly predictable and linear paths. The whole market for video surveillance is growing and the digital part is continuously taking shares from the analogue. Although the structure is quite stable and the players are known. There are few new players entering the market which makes it easy to relate to competitors and the market. This kind of market structure relies on existing knowledge and motivates storage of experiences and information of the present situation and work procedure. Axis' long market presence and the collected experiences over time constitute a dynamic capability.

5.5 Human Computer Interaction

In the previous parts, with discussions from different theoretical views, the focus often touches aspects connected to information and knowledge handling in a more concrete form. The theoretical discussion for example about knowledge transference is of interest, but if the possibility to actually use it or aspects practical influencing the arguments are excluded, it will be less relevant. Guidelines for working with the systems must be clear and informative, both for the users perspective but also for the quality and analysis considering the data.

As mentioned above, routines are important and could be a vital part in the knowledge work and presumptions for growth. The situation has thus to be seen through other perspectives. Given instructions with demands for typing additional contact data or information of the situation could perhaps take some extra minutes to put into the system. Is it worth it? Will the value, to have the information in digital form, exceed the cost of labour hour inserting the information? Are the alternative uses exceeding the alternative cost? All aspects to be taken into consideration for companies working with these issues.

5.5.1 Databases

The development of database systems could be from an external program platform or be developed in house. There are always pros and cons with these kinds of decisions. Advantages to develop it yourself, in form of getting a highly customized solution, save perhaps money for development or implementation. Although it could be outmanoeuvred by aspects from a bought system with a more tested, finished and user-friendly version. The functionality will also be depending on the size of the organization or number of users. Few users of the data system, makes it easier to

inform and create stringency in the parameters and the definition for these. It will be harder when working in a decentralized organization and with many users. All parameters that could be of a multiple choice should be so in order to make them possible to categorize and analyse in a more efficient way. Hard parameters have strengths, but could be connected to more work when implementing. It demands that all the users interpret the parameters or scales in the same way. The choice is between the possibility to use the input in an effectively way or making them with a lower precision but more open for individual routines. Thereby soft ones are easier to define and start using.

The database relevant to this study is the CRM, or more specific, the pCRM. A presumption is that information is inserted in the system. It is done by "forcing" users to put in their project as soon as possible, while that is the only way to get a discounted project price. Without this type of information it would be much harder for parties like Sales PM to make prognoses, give feedback and support back to the sales offices. A lot of aspects concerning incentive are practically affecting the grade of use and amount of inserted information. Databases could also be associated with some handling problems, not at least current in Axis case with the pCRM. Some features interesting for the company is already a possible function in the system, but not used because of reasons like instruction or time shortage. Inserted knowledge and information based on fixed parameters or alternatives would be much easier to search for, store and in some form even analyse. But at the same time the degree of details will be reduced on behalf on the easiness to handle.

5.5.2 Use of databases

When looking at Skanska's work with databases, it could be stated that it is a profound part in some departments and concrete component in the daily work. The practice of databases is mainly in the central departments. At the field there is only a marginal use, or even possibility to use the relevant databases. By looking at this external and function focused benchmark ideas concerning Axis own work with storing and gathering information and knowledge could be enlightened. The importance of using the system at a frequent basis in order to see it as a natural part in the work strengthens the arguments to integrate it in the CRM-system. By using CRM as the main structure and link it to other systems or function it will make the handling and implementation less complicated. The German market has already been a driving force to implement new parameters into pCRM, and a frequent user of the system. According to this it would be an idea to first roll out and test the updates of the pCRM and the connected support from HQ, to get a hint of the functionality before a major and worldwide system launch.

When databases is mentioned in this discussion, it is intended to be information and knowledge gathered for future use. It could be in form of more detailed contact data of the customer or cooperation partners, it could also be examples from prior projects regardless if it turned out positively or not for Axis. It means not only success stories, even if they are of great use and a source for inspiration. There could be experience

gathered from the missed business opportunities. Even if it only is the major thoughts and reasons to the outcome mentioned in the project file, there would be much to learn. This will lead to another question. How will it be stored and reused in a more practical way? Concerning the use it is connected to the human computer perspective again. It must be an efficient way to search for the gathered information. The search function, or responsibility to find relevant info, must not be at the user, it could also be centralized. For example could success stories or best/worst cases be forwarded from the HQ to persons working with a project similar to a prior one. In this role will Sales PM be an excellent part. They know the character at the incoming projects and could use the stored knowledge in their outgoing support. As a next step could also information of this kind be automatically generated to relevant persons as soon as it is inserted in pCRM. Fixed parameters and clear guidelines will make this work possible. For example a file to the person, including all relevant contact info, two best and worst-case scenarios functioning as tips for the current project. This information should be sent by email or through the intranet according to the survey about how the offices would like to get information. The concrete aspects, like physical storage and technical infrastructure is outside the thesis' scope, and are parts that Axis controls. In some situations there is a general overconfidence to databases. Problems are often not solved just because information is stored, it has to be a part in a wider view and used in an efficient way. The role and function of the database are connected to some further aspects; the insertion must be in a structured way, the input in general must not be time and resource consuming. The correct information must be possible to find and be structured in a usable way, and not at least be brought back out to the organization in an efficient way to gain use, as the main idea. The fixed parameters, for structuring and the possibility to search, should be complemented with soft parameters. It could be in form of noting the experienced advantages and enlarged contact information.

5.5.3 Success stories

Success stories are an effective way of transferring knowledge concerning specific projects. It is a popular tool and gives an insight in the company's different operations areas. This kind of stories is often used for marketing purpose, but they are just as important to communicate knowledge between sales offices and departments inside the organization. Information, knowledge or strategies presented in a context makes the message easier for the receiver to comprehend. Successful projects are today stored in the pCRM-system among others. The difficulties to search after specific data in the system make it almost impossible for Sales PM to sort out the best respective worst case. The amount of data stored at each project is restricted to few parameters. This to guarantee that the time spent in the system is hold at minimum. Through a few more specific parameters reflecting the project characteristics, information concerning a special kind of project would make them easier to arrange. For example would information about which vertical and the project characteristic enable the possibility to construct light form of success stories or best cases. Cases with a special interest can then later be complemented.

There will still be a problem to get permission from external parties to use the material for marketing, but the stories holds an important value internally. The possibility to find similar projects concerning size, vertical, product solution and price could work as a good support for the local seller. The information stored in pCRM can also be complemented with the knowledge from the person who carried out the project and a direct contact could easily be arranged. The success stories are one form of documented best cases, and are a knowledge and information base. The success stories will besides the inspiration base work in the form of an internal benchmark, to show how things could be done in an Axis perspective. The success stories can be used internally at inside to create new ideas, but it could also be presented in a more offensive way. When a new project is inserted in pCRM could a success story, in the same way as good or worst case, be attached in a support packaging from the HQ to the seller at the local office.

5.5.4 Use and development of the existing system

A more focused use of today's pCRM-system could be a competitive advantage over time. The knowledge that are and could get stored here are an important resource and through an effective search engine and adequate structure could it be used to develop competitive advantages. Resources of this kind have to be shared within the organization and a group like Sales PM is well suited for this kind of work.

In many cases could a more graphic-oriented interface be the solution for problems connected to usability. The amount of information could be the same, it just differs in what extent and how it is presented. Through the graphic perspective, only the most important parameters for the situation will be illustrated. In the best scenario, more detailed information would be presented if required. A system with these functions demands work and resources, but should be seen from an investment perspective. A more frequent use of the system would result in a shorter pay back time. The graphic issue will be relevant to the pCRM in form of having defined parameters listed to just choose, and clear guidelines what the different alternatives are representing. The most concrete situation concerning visualization and human computer interaction will be related to the model, presented in next section.

5.6 The PCP-model

To create a model to support Sales PM's work has been in the mind through the whole process writing the master thesis. The model has the function of visualising a number of parameters already inserted in the database system, pCRM. Even if the ingoing parameters could be analysed individually outside the tool, the model will set it in a context through the figure. The PCP-model will create a quick overview and a collective vision at a situation or project. It will give Sales PM the opportunity to be more proactively when observing the different projects from an overview perspective. Due to this they could see where to put extra effort and resources. The model is not an automatic decision making tool, it is instead to be used as support for decisions made by the members of Sales PM or others that have an interest in project's

characteristics. Decision concerning project prioritization, support need at the local sales offices concerning project sales and where to focus the resources connected to Sales PM. The PCP-model's function of showing the characteristics of projects also makes it useful at a higher strategic level. The difference in characteristic of the projects makes it possible to separate projects into groups. Different groups can be of different interest or magnitude for the company in general. Thereby could the company's resources be allocated to projects that have a strategically importance. The name is an acronym for the ingoing parameters, *probability*, *complexity* and *priority*.

Sales PM will be the main user of the PCP-model. Thus it is of importance that the users inserting information into pCRM are well aware with the definitions concerning the ingoing parameters. This not at least obvious after the answers in the survey (chapter 4.7.2 *Experiences of CRM*). A guideline concept has to be developed, as a manual or as a part in the pCRM-system. The inserting process has to be easy and well functioning, without too much information disturbing the user. An important aspect is to create common definitions for the meaning of the different parameters as well as what the different steps aims to show. To make this easier, a list with just a few and well defined alternatives should be chosen from a scroll menu in the pCRM-system. The users, in form of project sellers inserting information, have to gain advantages from inserting information. It is a presumption and a forcing rule as mentioned in order to get a verified price suggestion from the HQ. However this does not mean that the inserted information is of high quality or relevant. This is why feedback is of importance. If the input is of high quality, and it will be analysed and processed by Sales PM, the project seller will gain advantage through a more focused and relevant support from the organization with Sales PM in the front. Another interesting, and fully relevant aspect, is the connection between Sales PM's internal work and own function. Sales PM is for example, and as mentioned before, working with the aim to make it easier for newly employed without knowledge or contact within the organization. This in order to give presumption for a faster teaching period and to transfer knowledge from the organization in general. The same situation could occur within the Sales PM group. If someone is leaving and new members has to be learned, or if the working pressure increase for Sales PM and the group will take in new members, it will be valuable to quickly integrate them in the working process. In this case will the PCP-model has the function to show the projects, how the support is and could be structured.

5.6.1 Model development process

The model has been in many shapes during the working process, from rather basic schematic flows to more advanced tools with a number of ingoing parameters. One of the more extensive models constructed, with a three dimensional view and a large number of complex parameters, gave a detailed and well-founded view. Thus it was connected to some negative aspects. The suggestions and thoughts presented in the part considering the human computer interaction and work with databases were aspects like simplicity, figures easy to overview, easy to pick out information and simplification of the reality. This resulted in a self-critical decision from the authors'

perspective. The model did not reach the own stated recommendations and was further on not particular generalizable. Consequently the model was re-designed and the outlines already presented in the thesis were given highest priority. It resulted in a classic four-filed matrix with an additional parameter. The PCP-model reaches the demands for easy handling, easy overview, possibility to insert additional information, unproblematic to understand and mediate the results. The prior and abandoned model was more formed as a quantitative tool and as a calculation support, not giving a desirable contribution to the study's intention. An inspiration for the rejected model was originally the benchmark to The Swedish Road Agency's (VV) work with quantification of soft parameters. The facts from VV are still relevant, and the thoughts in which parameters could be standardizes are used, but the user friendliness has been given higher priority than to create and deliver an extensive calculation support tool. Also the thoughts about priority as a consequence of quantification of soft aspects have inspired some parts. The reasons above together with aspects from a user perspective about visualization have resulted in the following model.

5.6.2 The PCP-model, for project visualization

The use of the PCP-model will mainly be to create an overview of the inserted projects into pCRM and their characteristic. The degree of support or focus is not directly shown in the model, but the characteristic of the project gives a picture of what kind of support or resources that could be requested. The horizontal axis in the PCP-model represents *complexity* on a four grade scale (see figure 5.4). This parameter does not exist in today's pCRM. The vertical axis is representing the degree of *probability* and it is based on the parameters already inserted in the pCRM. A more detailed presentation about the parameters will follow bellow.

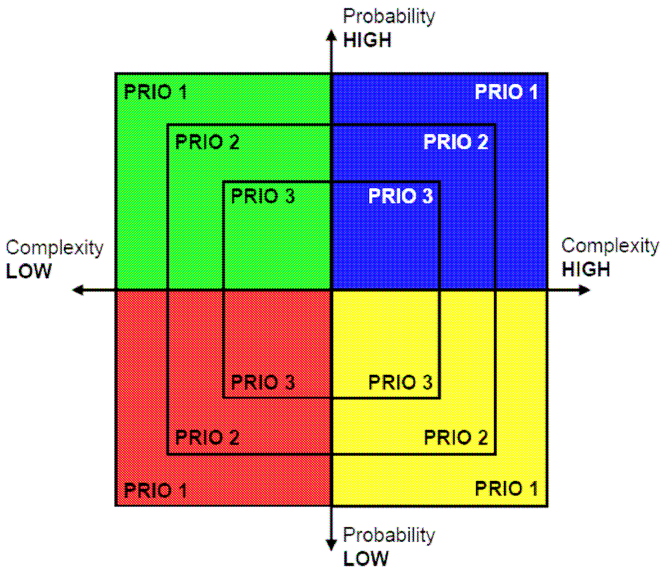


Figure 5.4 The PCP-model for visualization of project characteristics.

The level of complexity can be chosen on a scale of four, but will only be showed in the model as high or low. The ingoing aspects and the number of levels can be defined depending on company and market. Because of the soft characteristic of the parameter, the complexity level will differ between regions, sellers and offices. This difference will reflect the individual presumption of support, why a soft approach is of interest. The complexity parameter will be based on guidelines developed by Axis

and result in a point (1-4) when the parameter is valuated. Ingoing aspects for the parameter, for the seller to take in consideration, will in the case study be;

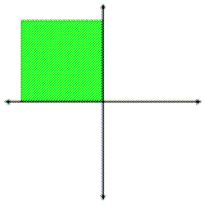
Complexity	
Customer experience	experiences of the customer.
System integrator	size, skills and experiences of the SI.
Product solution	possible difficulties in the composition of products.
Time to delivery	time to day for delivery.

Earlier were the volume or price the only parameters driving the importance of the project and thereby also the estimated support need. These parameters are not necessarily correlating and can be seen as rather blunt and misleading to what they are supposed to show.

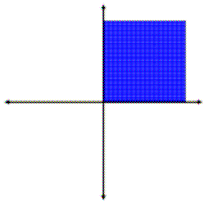
The probability parameter can differ a lot between trades. Of course have the sell process, the total amount of projects and the products characteristic influence on the design of the probability scale. The probability parameter in pCRM is today without guidelines and is based on the sellers gut feeling. A guideline is under construction by the Sales PM. The parameter will be based on the specific product's influence on the total demand of the product in combination on how far the sell process has reached. The scale of probability should be limited to five steps to ease the valuation of the parameter for the user.

Probability	
Product classification/ number of products	product type in consideration to quantity.
Point in the sale process	time point in the sales process. Defining how far the process has reached.

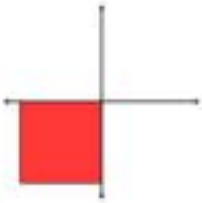
The PCP-model shows only high or low on each axis, which is a deliberated restriction, because of the model's purpose to give a fast visualization of the project characteristic. A more detailed view of each project will still be available through the gathered parameters saved in the system.



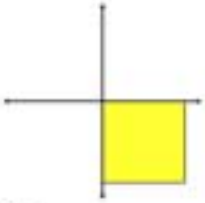
Green area:
Low complexity and high probability.



Blue area:
High complexity and high probability.



Red area:
Low complexity and low probability.



Yellow area:
High complexity and low probability.

The current area for a specific project exemplifies the situation of the project. The third dimension is the square system, the *priority*, coded as *Low/Prio3*, *Medium/Prio2* and *High/Prio1*. The three levels of prioritization are already variables in pCRM. There are no precise definitions for the different levels, but the prioritization reflect the strategically importance of the project. For example can a relatively small project be of importance if it is a pilot project, why it should be market with a high prioritization. In the same way as a large project with standard solution and no special need of support should be market as low. A suggestion of definition for each level follows bellow.

Priority	Low	standard project. No special need of support or focus from the HQ.
	Medium	project of importance at a local level, support from HQ may be required. Contact should be taken.
	High	strategically important project and/or special solutions that require back up and active support from HQ.

Visualization of the project's characteristics is in line with the recommendations presented earlier. The simplicity in the PCP-model is a strength, there is no use to make it more complex than necessary. The usability, function and handling aspects are of great importance. Still the decisions lay at the human roles, but their decision will be easier and more well grounded due to this model. It will work as a support for the decisions considering coming action from the Sales PM. The control centrally will be reduced, while the valuation done by the sales persons at the local offices will have a considerably influence on the parameters and consequently the model. However

those who are the one actual working with the project and are the ones who posses the tacit knowledge about the market. It will also lead to that the system is scaleable because all decisions forwarded to the managers could be a possible bottleneck when the volumes increase. From an implementation perspective it could have the positive effect that the sellers feel an increased responsibility and confidence from the organization. While the decision and valuation situation are at the sales persons agenda it has to be clear, defined and easy guidelines for the user. This while it should not take too much time inserting the information in the system and to create a common view of the situation with parameters meaning the same, otherwise the analysis at HQ will not be adequate. The guidelines would preferably be in pCRM, for example viewed as a pop up window for easy and fast handling. The parameters, after the manual and intellectual valuation of the soft objects, will be inserted through the fixed alternatives in pCRM.

The parameters used, the weight and correlation are just suggestions. It will be free for Axis to develop and adopt these concerning their knowledge and additional information not available for the authors. Still the framework will work and give Axis and Sales PM a better foundation for the project work. To sum up will the PCP-model be a part in a prioritized and effective support to the sales offices, a tool for internal use to structure the incoming information and to create opportunities to focus the company's resources. The PCP-model itself is quite basic, which is a strength. Models are a simplification of the reality. No models are without objections, but still, the function and role are relevant in study and situation. The priority work will be easier for Sales PM, but what will it give in a wider perspective? To what extent the Sales PM's work is creating new business opportunities are hard to exactly predict, not at least in the short run. The work is mainly to be seen from a long-term perspective, and primarily to secure the internal function within the network. Axis has to guarantee that valuable knowledge or information are not forgotten or disappeared to be prepared for the continuing market growth.

The PCP-model is to be seen as generalizable due to the common construction and because the parameters also are relevant to other projects or situations. Even the guidelines can be seen as generic. The thoughts in the model are applicable not only on products, but also to service oriented situations and business.

5.6.3 Development of pCRM

The PCP-model would give each project a colour and a prio number, which could be marked in the list of projects. This information could easily be communicated internally. This to further visualize the characteristic of the project. It would ease the demand prognosis when only projects in a certain colour, i.e. project with a specific characteristic, mainly the upper part in the model, should be taken into consideration. The model could be focused to different verticals, so that members of Sales PM can get projects of their own responsible area high lightened. When looking at a project through pCRM, it would generate a visualisation in form of this model for a quick overview for the user. The fact that the majority of parameters are available in the

database will give the opportunity for a relatively fast implementation phase. It will further on not demand much more time or effort from the sellers at the local offices inserting information in the pCRM-system. The vertical, regarding what customer segment is relevant, will be a filtering base for Sales PM. This is a new parameter which preferable would to be inserted in next update of the pCRM system. It will as suggestion be a box to mark which of the six verticals, customer segments, that are the current.

5.7 Sales PM

According to the survey the experiences of the Sales PM and their work are very good. Other aspects expressed, like the demand for support or communication through databases and the intranet, are well correlating with the discussion in this study. Concerning the overall communication, there can be a point in developing the monthly meetings with the Sales PM group to involve more than one country or area at the time. This to make the meetings more as an ordinary group meeting, even if on distance. On account of this setup the questions and thoughts come all in use, even if someone may not have had it in mind from the beginning. The downside is that some may feel restrained to ask questions or are unwilling to reveal secrets or own business aspects among others. It can also result in a more unorganized and time-consuming event. The workshops held in addition to the KAM-conference were experienced as valuable forum for discussion and idea exchange. It is important that the aspects will be followed up afterwards in order to gain advantage from the discussions, and translate it to practical use. This can be solved if responsible representatives from HQ are taking part and secure that the input will be mediated and implemented.

The work with Sales PM as well as with an intense use of pCRM is to be seen in a longer perspective. The short term results, in form of an improved internal communication and focused support will be enlightened, but the more extensive profits will be seen first in a longer perspective. The new working processes have at first to be well integrated with the prior and ordinary structure. The databases has also to be up and running to offer a base of different projects to back up the design of the support. There are some risks or consequences connected with an increased use of pCRM. The overhead-costs could grow, and it will also take time, even though primarily initial, to start using the system in a more extensive way and logging additional information. If the system would turn out to not work, even though the thoughts about logging and knowledge transfer are correct, there is no use to force it on the organization. Sales PM has today no tool to see which project their work should be focused on. Projects are not high lightened, so the user has to search manually in pCRM to look after key-indicators, which are not so exact, like volume size and prize to identify the need for back up from the HQ. This situation will gradually be harder when the flow of major projects grows larger. There is today no notification in the system about updated information made by the sellers. This should be a function in the pCRM, and it is also where the model will have one of its contributions.

The work of Sales PM has a clear connection to the overall strategies for Axis, as also is mentioned in chapter 5.4 *Resource Based View*. Their team objectives, for example generating more business, are directly correlated to the major aim for Axis of the 5x5-goal. In the work of reaching the goals are an effective selling process an essential part, which in turn is established on an efficient support from the HQ. From a softer perspective is the work of Sales PM, even if not explicit mentioned, to maintaining the Axis culture in one form. This involves an open and friendliness internal climate, where it natural to ask questions and to give and get help.

Focus at the local sales offices are naturally, while these as well as the Sales PM must see a clear benefit in an increased information gathering. The information spread must be in both directions so the sales offices experience feedback in form of support is based on the data they have put in the system. The HQ has to motivate the sales offices to inform and share their own information and knowledge about their customer and the relations. In order to do so, they must feel a benefit from it. This could also be a self-fulfilling prophecy. If it is experienced to payoff if inserting information, it will trig to insert more. In turn will this lead to a bigger information base and a further improved feedback and support from the HQ and Sales PM.

5.8 Analytic reflections

As mentioned in the analysis there is sometimes overconfidence in databases. The CRM-system or any other data-system will not in itself solve the problem of getting hold of knowledge or resources available in the company's environment or network. Implementing new database-systems or larger changes is a big process, which requires time and financial resources. Proposals and thoughts in the chapter are primarily based on the information the authors have taken part of through interviews, meetings and the survey. Information gathered from the survey has given a broad picture from the sales offices' perspective. The number of responds and the variation in position of the persons who have answered has probably influenced the result and the information. With this in mind have the authors tried to process the material from a critical view.

The PCP-model that has been created is to be seen as a helping structure for Sales PM. Even if a few of the parameters, that are inserted in the pCRM-system, to some extent still depends on gut feeling will the model give a visualization of a project's characteristics. From this picture can Sales PM estimate the amount of support and effort the project and the seller could need. It is possible that the model not always will give a correct view, which will depend on the handling of the system. Sales PM has therefore to be active during a period of transition.

Subjects discussed in the analysis could be generalized to companies in a similar environment as Axis. Even if Axis is in focus are the thoughts and the discussions in many cases the same. The model could be used within different businesses and trades. The ingoing aspects would of course vary, but the bottom line is the same as well as the intention.

6 Conclusions

This chapter will summarize prior parts of the thesis and present solutions and recommendations for Axis. The theories effect on each other will be discussed, together with the parts of interest for companies in a similar environment. All aspects presented in this chapter are more closely discussed and analysed in chapter five.

6.1 Introduction

This master thesis results in a conclusion containing three major parts; practical recommendations, theoretical findings and a general synthesis about the potential to apply the results to other situations or trades. There is a connection between knowledge and information handling and the possibility to grow for companies at an expanding market. This statement will be further developed in the upcoming parts.

As mentioned in chapter 1, the thesis has a two-folded purpose in order to be both theoretical interesting and practical relevant. The suggestions and findings concerning the topical situation analyzed in the study have promoted and enlightened a number of aspects. The structure will be the following; first the theoretical and practical elements are discussed and presented as a foundation and support to the general conclusions and the synthesis. The synthesis in turns results in new ideas concerning the topical issue, which are presented in the last chapter, 7 *Suggestions for further research*.

6.2 Theoretical perspective

The theories together with the studied area have generated a number of thoughts presented below. These are not to be seen as commandment, instead as short reminders of the importance of their content. The six following headers and their messages are based on the used theories and are biased towards Axis.

- Visualization of information is important when the amount of data grows -
Visualization of information is a favourable function that would ease the work for users of the pCRM-system. Sales PM and Axis in general are depending on a sufficient and effective tool to be able to prioritize among projects in the future with an expanding market. The CRM-system has potential of some improvements, but constitutes a good foundation for Axis' information structure.

- Exchange of recourses develops and improves the network, as well as the individual operations -

Depending on the relations and the network's structure both explicit and tacit knowledge can be transferred. The position in the network could influence this interaction in the same way as the company's size or hierarchical structure. Knowledge can also be developed through this kind of interactions between firms. Actors with different core businesses and values influencing each other and force members of the network to improvements. Common enounced goals between the actors make the whole chain more effective.

- An intermediary group will function as a capability -

To be successful in the present environment companies have to know their network. Knowledge about each actor's resources and capabilities are of importance in the same way as the resources gathered in the own organization. Relations are of great value and need to be maintained. A special group for this integration is a rather easy and an effective way for the whole company to secure future exchanges within the network. The chosen theories for this thesis motivate a group like Sale PM in the organization.

- Alliances, crucial for success -

The company's business reaches no further success, over time, than its own network. Partner programs and alliances are excellent forums for knowledge development and exchange. By involving as many parts as possible in these kinds of programs integration is enabled between departments, that otherwise are sheltered, with the market. With a tight network and partnerships, resources and competitive advantages held by others could generate value to Axis' sales process. The nature of the sales process makes it strategically important to handle the other actors carefully and respect each position in the network and the benefits those bring.

- Knowledge generate value in a network -

The company's control over structural holes and relations influences their possibility to put demands on other actors. Knowledge is a vital part in this, depending on the possibility to deliberately choose to share knowledge or not. As mentioned the knowledge stored among the employees is often underestimated and the social capital is also vital in the work with knowledge exchange within and between organizations.

- Knowledge a continuously developing resource -

A faster pace of growth motivates a company to be better on taking care of their own knowledge as well as the knowledge among the actors surrounding them. Companies cannot stay competitive on just knowledge developed in-house. The external view of resources sees to the company's extension in combination of the internal resources. This extended view of the company makes it possible to find synergies and create capabilities to develop and use each other's resources. The potential to raise the level of knowledge within the network strengthen the degree of competitiveness and prepare the network for a future market growth.

Theoretical contribution

- To handle each individual´s knowledge in the network as joint resources.
- To see the external network from an internal perspective.
- To connect the internal and network specific resources in an extended context through Resource Based View.

6.3 Practical perspective

Axis will continue to grow, regardless the direct degree of knowledge management in the short time perspective. This because of the market growth in common and Axis strong market position. Thus it is of importance to take the mentioned aspects into consideration in order to gain sustainable competitive advantage, as well as to create opportunities to grow even faster and maintained profit.

Even though Axis has been the case study, parallels could be drawn to other trades and firms working in a similar environment. The work with knowledge and information storing is general and of importance. One foundation to the knowledge work is well functioning databases, where in this case some additional information than today's should be inserted. This will in turn give the possibility to visualize the situation through the PCP-model, but also to exemplify it from different success stories or best/worst cases. All functioning as fast information carries, easy to take part of and to understand. An effective and working knowledge bank could be built up concerning projects which in the long run perspective would generate; better and more exact sales support, increased sales, opportunities for better prioritization, higher efficiency in support and selling, and more exact forecasts.

A correlation has been identified between knowledge and the possibility and presumptions for growth at the current market situation. This through theoretical and empirical studies. The sales process could be developed in the following aspects; make use of the knowledge and information already existing in the organization and the sales process. For example by improving the internal handling functions, make minor updates in the database systems to create possibility to store and search more efficient. This will in turn be one of the information foundations for the work of Sales PM, that will push it further by offering an efficient and prioritized support. Information will be brought back according to defined routines, automatically in some cases, in order to avoid information overflow at sales offices. The information and support has to be personified. This is one of the functions where the PCP-model will be an adequate tool, and give a signal where to focus. More general information and inspiration could be addressed through success stories.

The small, but still relevant improvement concerning the use of the database system, like a more extended and compulsory insertion of personal information, is of importance. For example to prevent the risk that a person is leaving the organization with an amount of tacit and explicit knowledge about the customer. If it is inserted in the system it will be much easier for new employees to take over. A similar situation also could appear in the sales process. Axis is normally counting on additional sales after the original customer deal. Because of that, it is of importance to quickly be able to take part of old information and material about the customer. The parameters *Complexity* and *Vertical*, vital for the PCP-model, are other extensions of the existing fact inserted in the system. Improved and more consequent use of the, already inserted, key success factors are also a presumption and good opportunity for knowledge and information use. Maintained and increased use of the pCRM-system is a condition to gain sufficient information from the market and the sales offices.

Practical aspects

- Continue the integration with Sales PM, as a cross functional group within the organization.
- Develop the interaction between the actors in the network, in order to find synergies and sufficient resources.
- Store information and knowledge, through future development of the pCRM.
- Use the information from the PCP-model to focus and prioritize the support.

The practical solutions, exact design and implementation phase will be tasks to be managed by representatives from Axis, or perhaps from a new team of master thesis students.

6.3.1 The PCP-model

The function of the own developed PCP-model will in Axis' case be several folded. Primarely it will support the work for Sales PM, but it will also be usable for others in the organization. By visualizing the characteristics of projects, support and resources can be concentrated where it is needed and on the projects with a strategically importance. Which these projects are, is up to the organization to decide with the support from the PCP-model.

The PCP-model's basic structure and generic parameters can easily be transferred and generalized to other companies or trades. The ingoing aspects in the different parameters and variables can with ease be adjusted to the present situation.

The PCP-model´s strengths

- Visualization of the characteristics of a project.
- Creating an overview of possible projects.
- Categorization by verticals makes it easier to focus on a specific area and search information.
- Support decisions about what actions should be done by the Sales PM or HQ.

6.4 General perspective

With the practical and theoretical base stated, the connection and the transmittability to a wider perspective are listed below.

General aspects

- There is a clear connection between knowledge and company growth in a dynamic market.
- A more efficient support built on the customers needs and earlier gained knowledge, which is focused on the prioritized projects, is valuable.
- The own developed PCP-model offers improved visualization of projects characteristics.
- An overview, connected to the strategically decisions is of weight. Both concerning prioritizing and improved potential to replace and teach employees efficiently.
- Knowledge regarding the importance of sustainable competitive advantages could give possibilities for increased sell and new business opportunities.
- Opportunity to gain competitiveness through the joint knowledge within the network.
- An intermediary, working in process form between the actors in the network, ease the knowledge and information transfer.

6.5 Reflections of the conclusion

The chosen theories appeared to fit together even better than the authors first had thought. The theories complemented each other in a natural way and where one of them ended, the next took over. The combination of Network theory, Knowledge Management and Resources Based View together with a twist of Human Computer Interaction has delivered credible answers to the stated problem as well as to the two-folded purpose. The cross fertilization has also affirmed Axis strategy with a cross functional group. The structure and line of argument has a creative touch because of the network perspective which lift the knowledge and resource thinking one step further. Human Computer Interaction has followed the discussion parallel to indicate complications in the practical work of Knowledge Management. This together with the other theories gives a broader and more general view over structures, networks and resources. The development of the model could be seen as both a practical and a theoretical contribution and as a tool for Sales PM in their work.

7 Suggestion for further research

The last chapter in this master thesis will provide suggestions for future potential working areas connected to the conducted study. The proposals are relevant to Axis but also to other parties that could have an interest in given issue.

7.1 Future work

The ideas and choices presented below are proposals for Axis to take into consideration for further action. It can also be seen as an inspiration base for other students who are interested in similar investigations, or would like to proceed with the results of this master thesis. The study has of course involved a number of crossroads and conscious choices along the way. Ideas outside the framework of the investigation, but still related, both to Axis and the basic issue.

7.1.1 The practical view

The challenging topic of implementation is a really important part in the next and natural step considering the theme of the master thesis. It has been deliberately outside the scope, but invites for a number of interesting questions. How will the suggestions be rolled out, and how will it be practical integrated in the organization? Perhaps could a clear and world wide starting point be the best, or maybe will it be easier to implement it region by region. What kind of incentives are relevant and useful to create a high influx of the system, and what would give the best effect? Information in itself could cause some problem concerning storing and labelling, but also the fact of getting people willing to give away their own information to others. Regardless how superb the system would be, it will be of minor relevance if there is a lack of qualitative input to it. The relation between the sales offices and HQ is another topic. Is there a risk that Sales PM will alienate the local offices as opposite to the intention, or is it possible that the group will mostly work based on a purpose of its own?

7.1.2 The theoretical perspective

It would also be interesting to look at other trades or by using other case study objects in order to further identify or secure the findings and identified connections. To what extent it is possible to see the findings as general, are they representative also in other situations?

Developing the model, the one showing characteristics of the project, to a more extent version could be of interest. Perhaps even connect it to quantitative data for automatically support, without loosing the basic nature and the easy handling and

overview. Another relevant track could be to further develop the theoretical contribution concerning Resource Based View, Network theory and Knowledge Management from a company internal perspective in a dynamic market situation. Theories with a broader and more external view of the organization would give another dimension to the study. Competition between the networks and competitive advantages could then be analysed in a different way. The theories regarding learning organization are also related and relevant ditto for this investigation. Due to earlier reasons it has been sorted out on behalf of the three major and used theories. But still, it could be an interesting analysis and view to look at.

7.2 Ending comments

There are, as seen, a number of suggestions for further research in the subjects connected to this study. The authors have found the work with the master thesis highly interesting and recommend persons with an interest of the topic to study it and maybe proceed with one of the above mentioned issues.

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Appendix I

Axis Communications AB, Lund
Technology Management, Lund University
March 2007

Submit by Email

1 **What is your position at Axis Communications?**

Insert your answer here

2 **How many years have you been working at Axis?**

3 **What do you see as Axis main competitive advantage?**

Insert your answer here

4 **How do you define a project in relation to the daily flow of sales?**

Insert your answer here

CRM

5 **a. To what extent are you using CRM?**

b. What are your experiences of CRM?

☐ Very bad ☐ Bad ☐ Neither good or bad ☐ Good ☐ Very good

Comments

c. On what do you base the information you store in the CRM-system?

Probability of success:
For example: How is the percentage decided? Given guidelines?

Priority:
For example: How is it decided? Given guidelines?

d. Do you see any potential to improve the CRM-system?

Insert your answer here

e. Do you use any other system or tool for logging projects?

☐ Yes ☐ No (If no, proceede to question 6)

f. If yes, what kind of system or tool?

Insert your answer here

Contact, Support & Storing

6 What is your experience or contact with the Sales PM-group in Lund?

Insert your answer here

7 a. In general, what kind of support/information do you need in your work?

Insert your answer here

b. How do you get it?

☐ Email ☐ Telephone ☐ Local meetings ☐ Meetings with HQ ☐ Information letters

☐ Information prospectuses ☐ Databases ☐ Inside ☐ Other

Comments on sources of support and information

c. How would you like to get it?

☐ Email ☐ Telephone ☐ Local meetings ☐ Meetings with HQ ☐ Information letters

☐ Information prosoectuses ☐ Databases ☐ Inside ☐ Other

Comments on desired channels for support and information

8 a. Do you store information from earlier projects?

☐ Yes ☐ No (If no, proceede to question 8d)

b. If yes, what kind of information do you store?

Insert your answer here

c. If yes, how do you save/store the information?

Insert your answer here

d. If no, why not?

Insert your answer here

e. Do you re-use information from earlier projects?

☐ Yes ☐ No (If no, proceede to question 8h)

f. If yes, what kind of information?

Insert your answer here

g. Do you share it among others within the organisation (local/global)?

Insert your answer here

h. Would you like to have information from earlier projects made by others?

☐ Yes ☐ No (If no, proceede to question 9)

i. If yes, how would you like to get that information?

Insert your answer here

9 How does your connection to other actors in your sales network look like?

Example: HQ: Contact two times a month, mainly mail, information about the company and new products.

HQ:	
Support:	
Sales PM:	
Sales offices in other countries:	
Distributors:	
System Integrators:	
ADPs:	
End-customers:	

b. Do you know which ADPs that are used in a specific project?

☐ Yes ☐ No

Please press the "Submit by Email" button when you have finished

Submit by Email

If the automatic resend button doesn't work at your computer, please print the survey with your sketched answers and send it to us by traditional mail. Att. Johan Clason, Axis Communications AB, Emdalavägen 14 SE-223 69 Lund, Sweden

Thank you for your help and contribution!
Best Regards, Johan Clason and Nils Kjellsson