

# How to design a distribution flow to the Indian market

- BASED ON MARKET POTENTIAL, IMPORT REGULATIONS, AND TRADE BARRIERS

**AUTHORS:** 

JESSICA ARVIDSSON AND LINN SJÖVIE HASSERIUS 2014-10-21

**SUPERVISORS:** 

PER ÄDELROTH,

VICE PRESIDENT OPERATIONS AT AXIS COMMUNICATIONS AB

ANDREAS NORRMAN,

DEPARTMENT OF INDUSTRIAL MANAGEMENT AND LOGISTICS AT THE FACULTY OF ENGINEERING, LUND UNIVERSIT

# Preface and Acknowledgement

Present Master's Thesis is the final step towards a degree in Master of Science in Industrial Engineering and Management at the Faculty of Engineering (LTH), Lund University. This thesis has been conducted during the autumn 2013 and parts of the spring 2014 with activities in both Lund and India. The project is composed for the company Axis Communications AB with supervision support from the Department of Industrial Management and Logistics at the Faculty of Engineering, Lund University.

The purpose of the Master's Thesis is to combine theoretical knowledge from the university together with new achieved understanding of how to approach supply chain solutions for providing products to the Indian market with regards to corporate strategy and strategic fit.

We would like to address a big thank you to Axis Communications AB for all contribution and support to the project and especially to our supervisor Per Ädelroth, Vice President Operations, who made this project reality. We would also like to address a big thanks to Axis's team in India, led by country manager Sudhindra Holla. Especially, we would like to thank Jose Thomas who arranged our visit and all meetings in India. We would like to thank everyone at Axis both in Lund and India that participated in interviews and workshops and everyone helping us with administrative matters.

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Lund Thursday, April 3 2014

Jessica Arridsson

Jessica Arvidsson

Linn Sjövie Hasserius

Vinn Hasserius

# **ABSTRACT**

#### TITLE

How to design a distribution flow to the Indian market – Based on market potential, import regulations, and trade barriers

#### BACKGROUND AND PURPOSE

A global company aiming at a high market position in the future, which Axis Communications AB is, is forced to address the emerging markets. Axis has previously focused on Brazil, Russia, and China and now it is time to address the fourth BRIC country; India, since it is considered to have one of the world's greatest market potential.

Axis works according to their partner model, which defines how Axis goes to market. Axis always sells products to distributors, the distributors sell the products to the system integrators/resellers, and the system integrators/resellers sell the products to the end users. Today, Axis sells products to the Indian market through applying ExWorks Singapore, which means that Axis Communications AB ships the products to Singapore where the distributor buys the products. The distributors sell the products to the system integrators/resellers, and the system integrators/resellers finally sell the products to the end users on the Indian market. Axis wants to know how this distribution flow can be designed to better fit the corporate strategy based on market potential, import regulations, and trade barriers. The research questions in the thesis are:

- 1. Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?
- 2. Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?
- 3. Which, if any, trade agreements or other governmental incentives in India could Axis benefit from?
- 4. Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

The purpose with this project is to clearly explain the advantages and disadvantages with Axis importing products to India. Since the market opportunity for Axis in India, requirements from the market and applicable trade agreements will impact the distribution flow design, this will be examined and presented as well.

# **METHODOLOGY**

For this Master's Thesis project, the Constructive research approach has been selected as method with slight adjustments to answer the research questions and fulfil the purpose. The Constructive research approach is focusing on solving an existing problem or finding a solution to a given situation. The data collection was made through desk research and interviews. This process was structured according to the research areas: corporate strategy, macro environment, sales and market potential, trade regulation, and distribution flow. The empirical data was analysed to create a problem solving construction that first was tested practically through a workshop at the company and then refined.

#### FRAME OF REFERENCE

From the framework for network design decision by Chopra and Meindl (2004) and the framework for import/export decision by Nelson (2000), the researchers developed a research framework. The framework has five research areas: Corporate Strategy, Macro environment, Sales and Market Potential, Trade Regulation, and Distribution Flow, see Figure 1.



Figure 1: The Pyramid Model.

#### CONCLUSION

The refined solution for research question one is that the sales potential is positive for Axis's products on the Indian market for video surveillance for the years, 2014-2016. Although, Axis will need to invest a lot of effort and resources to follow the market's estimated growth.

The refined solution for research question two suggests that it would be beneficial for Axis sales in India to implement the following changes to today's offer:

- Requirement: Take over the activity of labeling the products with MRP-labels.
- Requests: Extend the warranty to match the competitors; shorten the lead time from order until the product reaches the end user; continue to have a broad range of products; introduce a customized product portfolio.

The refined solution for research question three is that there are no trade agreements applicable for Axis activity in India and that the governmental incentives of interest are the reduction of duty for some end users.

The refined solution for research question four is that the major advantages and disadvantages for Axis to start importing are:

- Advantages: Possible to establish a price list; conditions for implementing the partner program will be in place; Back-end rebates will be applicable.
- Disadvantages: India is a very corrupt market. Hence, regulations on the paper might not be equal to practice; price pressure and negotiation are fundamental parts of the culture.

The recommendation is that Axis should start import to India, to have Axis's strategy operational and to be able to build further on the basis of the corporate strategy.

#### **KEY WORDS**

Corporate strategy, macro environment, sales and market potential, trade regulation, distribution flow, import and export, India

# SAMMANFATTNING TITEL

Hur ett distributionsflöde till den Indiska marknaden ska utformas – Baserat på marknadspotentialen, importregler och handelshinder

#### **BAKGRUND OCH SYFTE**

Ett globalt företag som syftar till att långsiktigt öka sin marknadspotential, vilket Axis Communications AB gör, måste adressera utvecklingsmarknaderna i världen. Axis har tidigare haft Brasilien, Ryssland och Kina i focus och vill nu adressera Indien då den Indiska marknaden anses ha en av väldens bästa marknadspotentialer.

Axis arbetar utefter sin partnermodel, vilken definierar hur de tar sina produkter till marknaden. Axis säljer alltid produkter till distributörer, distributörerna i sin tur säljer vidare till system integratörer/återförsäljare, vilka sedan säljer till slutkunden. Till de indiska kunderna levererar Axis i dagsläget produkterna som ExWorks Singapore, vilket i praktiken innebär att Axis Communications AB skickar produkterna till sitt säljkontor i Singapore där de indiska distributörerna hämtar upp produkterna och importerar dem till Indien. När vidare produkterna kommit till Indien sälis de av distributören till systemintegratören/återförsäljaren, som i sin tur säljer till slutkunden. Axis vill nu veta hur man kan utforma detta distributionsflöde för att bättre passa företagets strategi baserat på marknadens potential, importregler samt handelshinder. Forskningsfrågorna för detta examensarbete är:

- 1. Påvisar marknadspotentialen på den Indiska marknaden för videoövervakning positiv eller negativ försäljningspotential för Axis produkter mellan åren 2014-2016?
- 2. Baserat på marknadens önskemål och krav, vilka förändringar av Axis erbjudande vore fördelaktiga för försäljning på den indiska marknaden?
- 3. Finns det några handelsavtal eller statliga incitament i Indien som är fördelaktiga för Axis?
- 4. Baserat på kostnads- och partnerprogramaspekter, vilka är för- respektive nackdelarna för Axis att börja importera till den indiska marknaden jämfört med att låta distributörerna sköta importen som idag?

Syftet med projektet är att utröna för- och nackdelarna för Axis att importera produkter till Indien. Då försäljningspotentialen för Axis i Indien, önskemål och krav från marknaden, samt handelsavtal och statliga incitament kan komma att påverka hur distributionsflödet utformas kommer även dessa aspekter att tas med i projektet.

#### **METOD**

För detta examensarbete har the Constructive research approach valts som metod. Metoden har modifierats något för att besvara forskningsfrågorna och uppnå syftet. Metoden fokuserar på att lösa ett befintligt problem eller att hitta en lösning till en given situation. I datainsamlingsfasen har metoderna skrivbordsundersökning och intervjuer använts. Datainsamlingen har strukturerats utefter forskningsområdena företagsstrategi, makromiljö, försäljnings- och marknadspotential, handelsregler och utformning av distributionsflöde. Insamlade empiriska data analyserades för att ta fram en lösning som först testades praktiskt genom en workshop och sedan förfinades till den slutliga lösningen, alltså svaren på forskningsfrågorna.

#### TEORETISK REFERENSRAM

Utifrån ramverket för nätverksdesignbeslut av Chopra och Meindl (2004) och ramverket för import och export av Nelson (2000) har författarna till föreliggande examensarbete utvecklat ramverket Pyramiden för undersökningsområden, även kallad Pyramidmodellen. Syftet med modellen är att tydliggöra de aspekter som påverkar svaret på forskningsfrågorna. Ramverket består av de fyra delarna företagsstrategi, makromiljö, försäljnings- och marknadspotential, handelsregler samt utformning av distributionsflöde, se Figur 2.



Figur 2: Pyramidmodellen.

## **SLUTSATS**

Den slutliga lösningen på forskningsfråga ett är att marknadspotentialen på den indiska marknaden för videoövervakning påvisar positiv försäljningspotential för Axis produkter för åren 2014-2016. Dock kommer Axis att behöva investera mycket energi och resurser för att följa med i marknadens estimerade utveckling.

Den slutliga lösningen på forskningsfråga två föreslår att det skulle vara fördelaktigt för Axis försäljning i Indien att införa följande förändringar i erbjudandet till kunderna:

- Krav: överta MRP-märkningen av produkterna.
- Önskemål: utöka garantilängden för att matcha konkurrenterna, minska ledtiden från order tills produkten når slutkund, fortsätta erbjuda ett brett produktutbud, samt introducera en specialanpassad produktportfölj.

Den slutliga lösningen på forskningsfråga tre är att det inte finns några fördelaktiga handelsavtal eller statliga incitament i Indien som kan nyttjas av Axis.

Den slutliga lösningen på forskningsfråga fyra är följande för- respektive nackdelarna för Axis att börja importera till den indiska marknaden:

- Fördelar: Möjligt att etablera en prislista, förutsättningar för att partnerprogrammet ska fungera kommer skapas, back-end rabatter kommer kunna appliceras.
- Nackdelar: Indien är en väldigt korrupt marknad vilket gör att regler som står nedskrivna inte alltid stämmer överens med praktiken, förhandling och prispress är grundpelare i den indiska kulturen.

Rekommendationen till Axis är att börja sköta importen till den Indiska marknaden för att på så sätt skapa förutsättningar för att följa Axis strategi och därmed kunna bygga vidare på partnermodellen, vilken anses vara en av Axis nycklar till framgång.

#### NYCKELORD

Företagsstrategi, makromiljö, försäljnings- och marknadspotential, handelsregler och utformning av distributionsflöde, försörjningskedja, import och export, Indien

# **ABBREVIATIONS**

CAGR - Compound annual growth rate

CCTV - Closed-circuit television

IP - Internet Protocol

MRP – Maximum retail price

MSRP - Manufacturer's suggested retail price

PTZ – Pan-tilt-zoom, a video camera feature

SME - Small and medium enterprises

FTZ - Free trade zone

HS -code - The Harmonized Commodity Description and Coding System

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# 1 Introduction

In this chapter the background and purpose of this master's thesis is presented. The problem definition describes in detail what questions the project will answer, and the delimitations indicate excluded areas. To simplify for the reader, the target group is described and an outline of the thesis can be found in the end of this chapter.

# 1.1 BACKGROUND

Today, the majority of the world's consumption is made on developed markets (Atsmon, et al., 2012). Emerging markets experience a rapid increase in consumer spend and improvement on living standard. On emerging markets, foreign direct investments, FDI, are considered as an important factor to development since it contributes with funds, transfer of technology, improvement of infrastructure, employment etc. (Patil, 2013). In 2010, the consumer spends on emerging markets were \$12 trillion. This amount is growing and by 2025, it is estimated to be \$30 trillion (Atsmon, et al., 2012). This is equal to an increase from 32 to 50 per cent of the global consumer spend. Hence, the emerging markets will be an essential part of the world's market within some years. Companies that are interested in penetrating these markets have to determine which strategy they will use before entering a new market. There are issues that need to be examined, for example the market, and the interface between distribution, trade, and law. This interface can have impact on the choice of distribution, since regulation, taxes and tariffs affect companies' way of importing, exporting, and doing business.

Axis Communications AB, Axis, is a Swedish company based in Lund, world leading supplier of network video and has since 1996 been leading the development towards a shift from analogue to digital video surveillance. The value proposition to the end user includes professional installation, and products that are based on innovative and open technical platforms. In several years, Axis has increased its turnover, and in 2012 it was almost 4.2 billion SEK (Axis Communications AB, 2013). Today, Americas account for nearly half of the sales whereas Europe, Middle East and Africa account for 41 per cent of sales. The rest, 14 per cent of sales is made in Asia. A global company aiming at a high market position in the future, which Axis is, is forced to enter the emerging markets (Atsmon, et al., 2012). Axis wants to address the Indian market, since it is considered to have one of the world's greatest market potential (Holtbrügge & Baron, 2013). In the beginning of the 1990s, India was liberalized, economic reforms were implemented, and the stock market was opened to foreign investments (Singh, 2012). Earlier, India had focused on strengthen national companies and counteract foreign companies' activity in India. Since the liberalization, India has experienced large growth (Singh, 2012).

# 1.2 Axis's Current Supply Chain

Axis has end users in 179 countries around the world. Parts are sourced from suppliers in different countries and the parts are shipped to Axis's configuration and logistics centers, CLCs. Axis has CLCs in Sweden, Hungary, Czech Republic, the US, and China (Axis Communications AB, 2013). When Axis receives a customer order, the order is configured in a CLC and shipped to the customer. The lead time for this process is in general 10 days (Interview 19).

Axis works according to their partner model (Figure 1), which defines how Axis goes to market. Axis always sells products to distributors, the distributors sell the products to the system integrators/resellers, and the system integrators/resellers sell the products to the end users. The system integrators also install the surveillance cameras at the end user's facility.

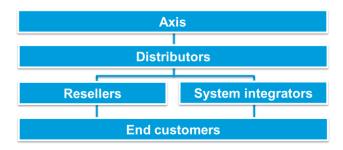


Figure 1: The partner model (Axis Communications AB, 2014).

The partner model is used on all markets and each partner in the model has its role. Axis develops and supply products, and supports the system integrators/resellers in selling the products to the end users. Distributors keep stock, and handle the transaction risk. The distributors have a large number of transaction points. System integrators and resellers meet the customers and sell the products to the end users and install the products. They have knowledge of security systems and Axis's products. Therefore, they play a key role in the sales process.

Axis estimates the annual growth potential on the network video market to 20-25%. In order for Axis to continue grow, the company has identified increased penetration on the emerging markets as crucial (Axis Communications AB, 2014b). The last years, Axis has worked intensively on establishing import to Russia, Brazil, and China. Now, India is next in line to be in focus by Axis.

When a country is supplied with products, Axis has three options regarding manufacturing and configuration, and four options when determining how to distribute products to the market (Table 1). Concerning the manufacturing and configuration, the first option is to

manufacture and configure within the country. The second option is to manufacture in another country and configure within the country. Third, both manufacturing and configuration can be made outside the country. When determining how to organize the distribution, the first option is to let Axis import. Second, the distributor can import products to the country. Third, the system integrators/resellers import. The fourth option is to let the end user import the products. In the Table 1, there are six options not applicable since the products have to be completed before Axis sells them to the distributor. Six options are possible to apply when determining how to supply India with Axis's products.

Table 1: Options for manufacturing and configuration of products combined with options for import of products into India.

ne	Production in India		N/A	N/A	N/A
ajor valı	Configuration in India, production outside India		N/A	N/A	N/A
ion of m tivity	Production and configuration outside India		Current flow to India		
Localization of major value adding activity		Axis imports into India	Distributor imports into India	System integrator imports into India	End user imports into India
(Legal) organization responsible for import into India				port into India	

Today, Axis sells products to the customers on the Indian market through applying ExWorks Singapore, which means that Axis ships the products to Singapore where the distributor takes over the responsibility and the ownership of the products. The distributors are responsible for selling the products to the system integrators/resellers, and the system integrators/resellers finally sell the products to the end users on the Indian market. The order flow, financial flow, and material flow are illustrated in Figure 3.

Also, in Figure 3 small figures illustrate different activities in the flow, for example a triangle indicates stock is kept. Singapore is a free trade zone and therefore there is no customs clearance in Singapore. When products are shipped into India, the distributors clear the products in customs. In the figure, the CLC is located in Sweden, but a CLC in any of the other countries could also be used. This flow is the market with "Current flow to India" in Table 1.

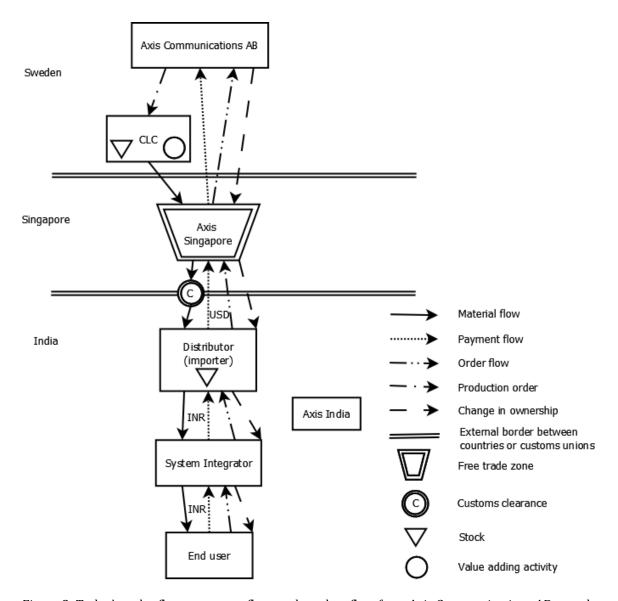


Figure 3: Today's order flow, monetary flow, and product flow from Axis Communications AB to end users in India.

Axis has a subsidiary in India, Axis India, but this is only a sales company and it does not interfere in the process illustrated above. They are handling the marketing activities, support and education of partners, and building relationship with distributors and system integrators in India.

Below, Figure 4 illustrates how products are distributed to end users in Russia. Distribution to end users on other emerging markets is similar. Axis Communications AB ships products to each country, e.g. Russia, Brazil, and China. Axis's subsidiary, in the figure Axis Russia, imports

the products and ship to the Russian distributors. The distributors keep stock, and sell products to system integrators. Finally, the products are sold to the end users and the system integrator installs the products at the end user's facility. Axis Communications AB consider this procedure might be an option to apply on the Indian market. That would make Axis India importer instead of letting the distributors handling the import.

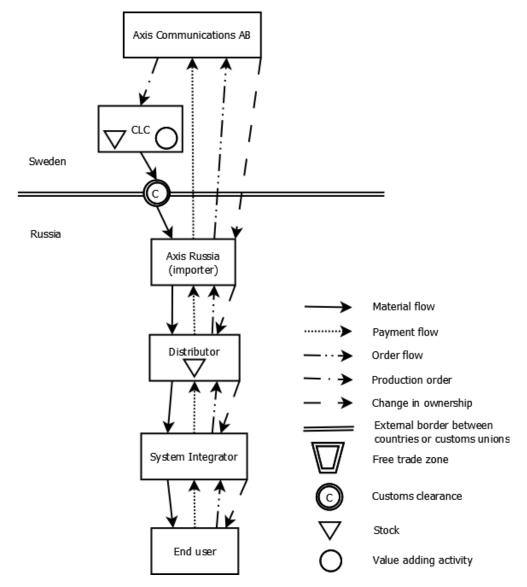


Figure 4: Flow of orders, money, and products from Axis Communications AB to end users in Russia.

The two different distribution flows can be seen as two different scenarios, both with advantages and disadvantages. Some of these are known, and others are supposed to be

discovered when conditions of the Indian market is explored. When distributors import, Axis on one hand does not need to work with the distribution to the Indian end users a lot, this saves time and money. But, on the other hand Axis does not know what the cost of the product is when it reaches the Indian market; costs of customs clearance and transportation are unknown. Axis works with three distributors in India, and all three handles the import process on their own. Thus, the costs vary and the final price to the end user is different depending on which of the distributors handled the import. Axis wants the market price to be stable in order for the end user to know what price to expect, independent from who he/she purchase the product. This situation has led Axis to a need of evaluating alternatives of the distribution to the end users in India.

To enable a trustworthy work around the distribution issue, it will be essential to understand the market opportunity for network video in India as well as understand the market's requirements on the products. These areas will probably affect the distribution since design of distribution often depends on the demanded volumes. Characteristics of trade between countries differ depending on any trade barriers or trade agreements. To understand any implications on the scenarios, a variety of factors such as customs clearance, tax and tariffs will be taken into account.

To evaluate scenarios for distribution of Axis's products into India, two frameworks for research was used; Nelson's framework for process when starting import or export (2000); and Chopra and Meindl's framework for network design decision (2004) (Both frameworks are described in detail in section 2.1 and section 2.2.). Nelson describe that the importing/exporting decision should be made in four steps;

- Determine what product/service to import/export.
- Decide which are the suppliers and consumers. That is, identify the market.
- Investigate whether the market is willing to buy your product. Consider consumers' buying power as well as the opportunity to penetrate the market.
- Finally, determine whether the profit of the import/export activity corresponds to the effort required (Nelson, 2000).

Chopra and Meindl describe factors important to consider in facility localization. Axis does not intend to locate a new facility in India, but the framework emphasizes several aspects that will contribute to the evaluation of distribution flow. These aspects include competitive strategy, internal constraints, competitive environment, tariffs and tax incentives, regional demand, political, exchange rate, and demand risk (Chopra & Meindl, 2004).

To conclude, there are a number of aspects to examine prior to evaluating an alternative distribution flow for Axis's products to Indian end users. The report is therefore based upon

three research questions, which together build up the basics to conduct an evaluation of available distribution flows. Initially, the Indian market opportunity will be examined, any requests or requirements on network video products will be identified, and applicable trade agreements will be explored. Based on the findings, advantages and disadvantages with Axis handling the import into India will be evaluated.

# 1.3 Purpose

The purpose of this Master Thesis is to clearly explain the advantages and disadvantages with Axis importing products to India. Since the market opportunity for Axis in India, requirements from the market and applicable trade agreements will impact the distribution flow design; this will be examined and presented as well.

# 1.4 RESEARCH QUESTIONS

The three initial research questions to be answered are;

- 1. Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?
- 2. Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?
- 3. Which, if any, trade agreements or other governmental incentives in India could Axis benefit from?

The above three research questions will give valuable input to the fourth research question;

4. Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

#### 1.5 Delimitations

The delimitation of the thesis is to focus only on the network video market in India for the years 2014 to 2016. Only network video products from the company Axis will be included. Axis has previously taken the decision to enter the Indian market and this decision will not be questioned. The project will not include a full market analysis, since identification of specific customer segment issues, analyses of the suppliers bargaining power, and the aspect of budget competition (4th level of competition in Lehmann and Winer's model of competition, see section 3.2) are excluded. The project is focused around the distribution of products to the Indian market, from the products leaving Axis's configurations and logistics centre until products are imported into India. Hence, sourcing and production are not included in the

project. No environmental aspects of transport will be investigated. The delimitations are due to the available time and resources allocated for this project.

# 1.6 TARGET GROUP

The key target group for the thesis is employees at Axis Communications AB with interest in the Indian market. The results may also be of interest for people and organisations involved in business in India and business in emerging markets. Other parties that may be interested in the project are university students and professionals interested in the Indian market, distribution design, and tax and tariff issues.

## 1.7 OUTLINE OF THE MASTER'S THESIS

The first chapter give the reader an introduction to the current situation. It includes background and purpose. The research questions are introduced as well as delimitations and targeted group.

The second chapter presents the theoretical framework used based on frameworks from Chopra & Meindl (2004) and Nelson (2000). Chapter three includes theory that is linked to the theoretical framework presented, hence it is structured based on the framework.

The methodology and scientific approach used for the project are presented in chapter four. Here the reader can follow the steps taken by the reserachers and understand the methods that have been used.

Chapter five presents empirical data with the findings from the data collection phase, structured due to the framework. The data is analysed in chapter six. Practical testing of the results of the analysis is presented together with the reanalysis based on the testing. Chapter six is structured according to the four research questions. The seventh chapter provides recommendations to the company based on the analysis and areas that woud be of interest to investigate further. The last chapter, eight, presents the academic contribution and areas of interest for further research.

# 2 THEORETICAL FRAMEWORK

In this chapter, two frameworks will be presented; one for the import/export decision and one for the network design decision. They have been used to identify areas to study. In order to answer the four research questions defined in section 1.4. These frameworks stress a number of factors that are important to consider when making decision on import/export, and network design decision respectively. Finally, it is presented how the frameworks are applied on this master's thesis.

# 2.1 Framework for Import/Export Decision

According to the import/export framework (Nelson, 2000), a company that wants to start an import or export business should investigate four questions.

- 1. What product or service?
- 2. What contacts?
- 3. What research?
- 4. What's the bottom line?

Deciding what product or service that should be imported/exported might be easier for an already existing company that already knows their product or service. The second question is to decide who are your costumer and provider of the products or service, i.e. to determine the market. The third question will investigate if the market is willing to buy the product or service. Cultural aspects connected to the buying power of the selected market as well as opportunities for a product to penetrate a new market should be taken into consideration. The fourth question covers the profit of the import/export activity. Nelson (2000) emphasises the importance to investigate if the price and quantity of the business are corresponding to the effort required. These four questions should help a person or organisation that wants to start an import or export business to get ready. Nelson (2000) also presents two checklists (Table 2) useful when an import/export process is started. The two (somewhat similar) lists provide an understanding of what areas that needs to be researched before the activities can start.

Table 2: Checklists before starting export/import (Nelson, 2000).

Checklist for what to research before starting export or import		
Export	Import	
Is there an existing market for the product	Is there an existing market for the product	
Market prize	Market prize	
Who has market share	Who has market shares	
Market size	Market size	
Population	Population	
Climate	Who are wholesaler	
Economics	Common level of advertising	
Language	Existing distributor channels	
Development in the country	Who are the customer	
Stability of the government	Buying decision influences	
Tariffs and taxation	Expected service level	
Soft and hard infrastructure	Competition	
Who are the customer	Property right regulations	
Buying decision influences		
Property right		

# 2.2 Framework for Network Design Decisions

The purpose of the framework for Network Design Decision (Chopra & Meindl, 2004) is to determine how to design a global network. It contains examination of a number of factors that determine the result in four different phases (Figure 5). Each factor has to be thoroughly investigated in order to give a valuable contribution to the decision making in each phase, and justify the final decision of network design (Chopra & Meindl, 2004).

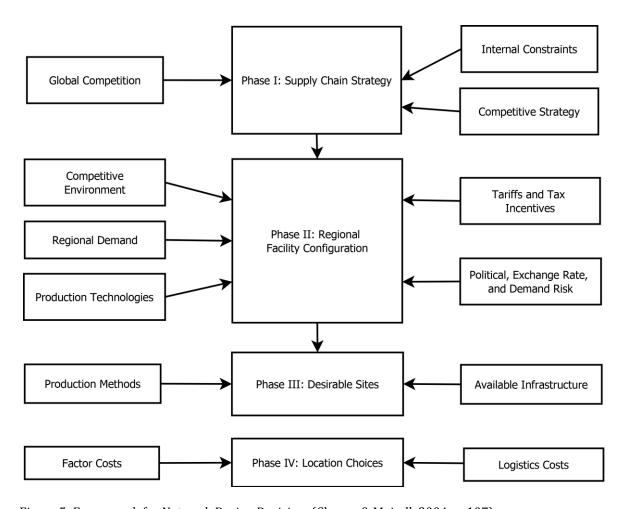


Figure 5: Framework for Network Design Decision (Chopra & Meindl, 2004, p. 107)

# 2.2.1 Phase I: Supply Chain Strategy

The purpose with the first stage is to decide which supply chain strategy to use (Chopra & Meindl, 2004). This is made through examining the company's competitive strategy, its internal constraints, and global competition. The internal constraints include capital, growth strategy, and existing network. The long-term impact of a network decision is emphasized. It is important to ensure that the supply chain strategy fits the corporate strategy to enable the company's organization work against the same goal.

#### 2.2.2 Phase II: Regional Facility Configuration

The second phase in the framework is designed to enable identification of regions where facilities will be located. The regions are determined through investigating the company's production technologies, the competitive environment, tariffs and tax incentives, regional demand, and the political, exchange rate, and demand risk (Chopra & Meindl, 2004).

The first step in Phase II includes analysis of the demand in each country. Focus is on size, growth opportunities, homogeneity, and local specification. This will lead to knowledge about what the customers require from the product (Chopra & Meindl, 2004). Also, it will indicate if it is advantageous with few and big production facilities or small facilities with larger opportunity to produce goods with more market specific attribute. Which set up that is most preferable depends on the market the company serves.

Investigating the production technologies includes examining which set-up is most beneficial regarding the production. To begin with, the costs have to be evaluated. Secondly, it has to be considered if the production technologies have scale or scope impact. The extent to which customers need support also has to be evaluated when identifying possible regions for locating activities. Moreover, the need of flexibility in the system is of great importance to assess before making a decision (Chopra & Meindl, 2004). Together, these aspects will have great impact on the alignment of corporate and supply chain strategy and to what extent the company's activities support each other.

The competitive environment is another factor impacting the regional facility configuration. There are a number of questions to answer. To begin with competitors' strategy, size, and location should be identified. Investigating these aspects helps to understand how to compete efficiently and effectively (Chopra & Meindl, 2004).

Two factors concerns macroeconomics: tariff and tax incentives, political exchange rate, and demand risk. These factors are important to the extent on which a company is successful with its supply chain. The aspects political, exchange rate, and demand risks, are difficult for a company to impact, but through preparing in advance for how to handle a situation that arises, it is possible to suffer less. They are likely to influence the design of the supply chain network (Chopra & Meindl, 2004). Evaluating the political stability in a country can be a difficult task and the assessment is usually subjective, but it will provide the company with information regarding the ability to conduct business without interruption. Also, availability of a secure legal system needs to be considered in case it will be needed. A company operating in more than one country has to assess the exchange rate risk. If a currency appreciate or depreciate, it will impact the business. In order to protect against these uncertainties, financial instruments can hedge or limit the loss caused by economic fluctuations. Another option is to design the supply chain network with production facilities in different countries with some excess capacity in order to direct some production to locations where the currency at the moment provides production at a lower cost (Chopra & Meindl, 2004).

# 2.2.3 Phase III: Desirable Sites

The purpose with Phase III is to select a number of sites in each region, which are suited for the company. The number of sites selected should be larger than the number of facilities to establish (Chopra & Meindl, 2004). The final choice of where to locate the facilities is made in Phase IV.

The selection of sites is based on available infrastructure and how it supports the production methods. Chopra and Meindl (2004) define hard infrastructure requirements as availability of suppliers, communication, transportation services, utilities, and warehousing infrastructure. Soft infrastructure requirements contain availability of skilled workers, workforce turnover, and the community receptivity to business and industry. Every aspect needs to be considered to give a solid base on which decisions can be made to select a number of sites (Chopra & Meindl, 2004).

## 2.2.4 Phase IV: Location choices

Finally, selection of location is made. Decision in phase IV is based upon which of the alternatives from Phase III that is the most profitable (Chopra & Meindl, 2004). For each possible location the factor costs and the logistics cost is calculated, including costs of labour, materials, logistics, transports, inventory, coordination and other site specific costs. To conclude, in this phase the company should, with all information presented, take a decision that maximizes the profit for the entire supply chain network.

# 2.3 APPLICATION ON THIS MASTER'S THESIS

The framework for network design decision by Chopra and Meindl (2004) and Nelson's framework for import/export decision (2000) address aspects that affect a global network. The four research questions concern the sales and market potential, requirements from the Indian market, trade agreements, and distribution. Chopra and Meindl's framework emphasizes the network issue and is a tool for facility localization, whereas Nelson's framework focuses on the business aspect of an import/export decision. Both approaches are of importance in this master's thesis since the company is eager to make a good decision on how to organize the distribution and it must be in line with the company's goals of making business. If the company determines to implement changes, it is important that information is based on reliable facts, but also that the issues are looked upon from more than one point of view. In this case, it will be looked upon from the distribution point of view, and from the business's point of view. A company should always consider the business point of view; is it possible to earn money if we make this decision? Will it be in line with our strategy and help us reach our goal? The distribution point of view helps the company understand if the decision will result in an effective distribution flow that makes the company fulfill its commitments. Thus, these two frameworks are considered to fit this master's thesis well. Even though the master's thesis not will propose new facility localization, the distribution mindset is important to include when investigating the advantages and disadvantages with import to India.

Both frameworks will to some extent be useful in all four research questions. Research questions number one, two, and three can be seen as building blocks to enable a well-founded answer of research question number four. The two frameworks emphasize various aspects that will be of importance in one or more research questions. Figure 6 illustrates aspects that the two frameworks address, and points out in which of the research questions this aspect is important to assess.

The two frameworks overlap each other to some extent, but also complement each other. The answer to each research question is affected by several aspects that are highlighted in both frameworks. The answer to research question number one is affected by if there is an existing market for the product and its demand, if the customers are willing to buy the product, how big the market is, etc. Also, the competition from other companies impacts the opportunity for the company. The answer to the second research question is affected by what the company offers, and what the customers want. The characteristics of the market also affects, for example can a request develop to become a requirement depending on what the market is supplied with and what forces it is impacted by. The third research question concerns trade agreements and government incentives, which is determined by possible distribution channels, tariffs, taxation, infrastructure etc. Finally, the fourth research question is both built upon the three initial research questions, and information regarding import, and distribution, but also the company's corporate strategy. The company's strategy can be seen as preconditions on how the company should act in the end. Therefore, it must always be included in the assessment of information and development of answers to the research questions.

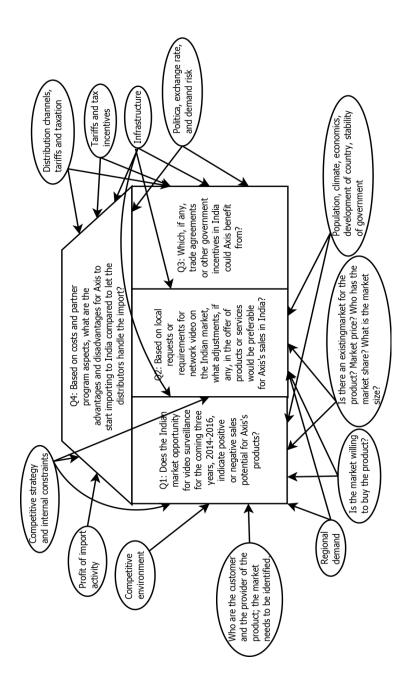


Figure 6: Aspects affecting the research questions.

From these two frameworks we have developed a new framework. Its purpose is to illustrate the aspects that will affect the answers to our research questions. The framework has five research areas (Figure 7). To begin with, the company's corporate strategy is seen as essential. To get to a result that will be applicable on the company's organization, it is crucial to

understand the company's preconditions, strategy, and goals. Next, the macro environment surrounding the company will impact the company. The environment includes the country's economy, politics, culture etc., which is the macro environment. For example, if the country experience a slowdown, it is likely that it will affect the company, either negatively or positively depending on how the company's customers react. The third research area in this framework is the sales and market potential. Research question number one mainly depends on the opportunity to sell the products on the market. To know which customers that are interested in the product, how much they are willing to buy, and which competitors that are acting on the market will affect the opportunity for the company to sell products in India. The fourth research area concerns trade regulations. When a company is trading with a company in another country, the activity is affected by the two countries' regulations. Importing a product into a country often entails payment of tariffs and taxes. Also, there can be an agreement between the two countries facilitating the trade. Depending on these things, the trade can be more or less expensive and complicated for the company. The fifth research area in the framework is distribution, which includes a company's import activity. A country's regulations and custom affects several issues when importing goods, for example the cost of import, the time it takes to get the products through customs clearance etc. Moreover, the distribution in this project includes the flow of products from the company to the end user, which includes the intermediaries; distributors and system integrators. The advantages and disadvantages of letting the distributors handle the import will naturally be affected by how they handle their part of the distribution. Thus, it is important for the company to assess when determining how to import the products to the Indian market.



Figure 7: The framework for this master's thesis.

To conclude, each area in the research framework is a building block. To accomplish a discussion on distribution, each of the previous research areas need to be assessed.

# 3 THEORY

To further develop the framework, theory related to its different parts are presented in six sections; Corporate Strategy, Macro environment, Sales and Market Potential, Trade regulation, and Distribution. Each section provides a foundation for the reader to understand the theory and the issues behind the research questions. The structure of the chapter follows the framework for research areas.

# 3.1 CORPORATE STRATEGY

There are a number of definitions of strategy. Johnson, et al. (2012, p. 3) defines strategy as "the long-term direction of an organization". Michael Porter (1966) states that "Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value." (Johnson, et al., 2012, p. 3). Even though there are different definitions, the purpose is similar; determine the company's goals and how they should be achieved. Johnson,



et al. (2012) explains that there are three elements in strategy; the long-term, direction and organization. The long-term invites the company to think of three horizons. The first horizon is the main activity today; the second horizon is an activity that will be of importance in some years. The third horizon is typically projects with high risk, such as R&D, which probably will generate profit in several years from now (Johnson, et al., 2012). The second element, the direction, defines how the company should develop and head in the future. It should be closely linked to the company's objective and goal. The third element is organisation, which includes complex internal and external relationships (Johnson, et al. 2012). All the relationships are important to manage in order to enable the strategy (Johnson, et al., 2012).

Strategy can be divided in different parts depending on which level it concerns. Johnson, Whittington et al. (2012) states the importance of having a good operational strategy, a strategy for how resources, processes, and people should be used in order to get the most out of it. The importance of a well-established operational strategy depends on the fact that it is usually the large number of operational activities that define the company's direction, which in the long run is the corporate strategy (Johnson, et al., 2012). Hence, the operations strategy and corporate strategy has to be aligned. Chopra and Meindl (2004) emphasize the role of a supply chain strategy that is aligned with the corporate strategy.

In the competitive strategy, at least one customer segment is identified as the main target for the product. To achieve strategic fit, the supply chain strategy must be designed to support the competitive strategy and be able to deliver what it requires (Chopra & Meindl, 2004).

# 3.1.1 HILL AND HILL'S FRAMEWORK

Hill and Hill (2010) discuss how to determine an operations strategy. Crucial in their framework is to understand that a strategy for a function or department in a company should always be based on the company's corporate objectives and competitive strategy; the strategies must fit each other. The framework consists of five steps. To begin, the corporate objectives should be identified (growth and profit targets, expectation on return on investments etc.) Secondly, the market strategy should be determined (products markets and segments, product range, mix, volumes, level of innovation etc.). Thirdly, identify how products qualify and win orders on the market place, i.e. why customers buy or do not buy a product. In step four and five, the operations strategy is established. Step four contains developing process choice, which includes decision on make or buy, how to allocate capacity in terms of size, timing and location, the role of inventory etc. In the fifth step, the company organizes its infrastructure (function support, operations planning and control systems; quality assurance and control, work structuring etc.) (Hill & Hill, 2009).

# 3.2 MACRO ENVIRONMENT

In order to get a picture of the country, the industry, and the company, a number of areas should be assessed. Armstrong and Kotler (2009) present a model for the macro environment (Figure 8). The model, which has six determining forces, was created for marketing purpose, but can be used to establish an understanding of the market.



First, the demographic environment is to be examined,

including mapping the human populations' age, gender, occupation, location etc. These aspects are of interest since people are the market, and will impact the business widely.

Secondly, the economic environment includes factors influencing the purchasing patterns of buyers. Depending on the purchasing power, consumers are more willing to spend their money. It is of importance to observe the economic environment and how it changes to identify upcoming trends.

The natural forces include three different aspects to consider; raw material availability, increasing pollution, and governmental intervention (Armstrong & Kotler, 2009).

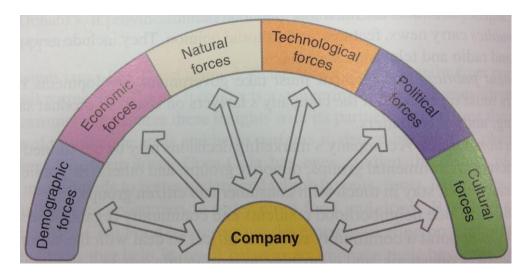


Figure 8: Six forces impacting a company's macro environment (Armstrong et Kotler 2009, 100).

Technological forces concern to what extent technological development impact the business and this force creates new technologies. The technological sector develops rapidly and it is critical to accommodate and see opportunities arising in order to maintain competitive (Armstrong & Kotler, 2009).

Another factor impacting the company is the political environment, which is defined as "Laws, government agencies, and pressure groups that influence and limit various organizations and individuals in a given society" (Armstrong & Kotler, 2009 p 114). Business legislation is created to protect companies against each other, protect consumers, and protect the interest of society against uncontrolled business behavior. In addition to legislation, social norms and business ethics is a part of the political environment and needs to be examined. In section 3.4 Trade this area is further developed with trade agreements, government incentives, trade barriers etc.

Finally, the cultural environment is a part of the macro environment. This factor includes the forces affecting people's values, preferences, behaviours, and perceptions. People have core values and secondary beliefs. The core values are passed on to next generation and reinforced by schools, governments etc. and are not likely to be changed because of marketing from a company. The secondary beliefs are the values people have, but which are more likely to change due to changes in the surrounding environment or affection by a company's marketing (Armstrong & Kotler, 2009). The model specifies a number of elements that people have different views of, which are of importance to the cultural environment. These are people's views of themselves, of others, of organizations, of society, of nature, and of the universe. Attitudes towards these factors shape the cultural environment (Armstrong & Kotler, 2009).

# 3.3 SALES AND MARKET POTENTIAL

A company thinking of entering a market, or expanding their business on a certain market, is interested in knowing whether it will be profitable or not. Hence, the sales and market potential should be examined. The first research question in this report regards sales potential. The following sections are aimed at describing factors that need to be examined on this area in order to proceed with any expansion plans.



## 3.3.1 POTENTIAL AND FORECASTING

According to Lehmann and Winer (2005), potential is defined as "The maximum sales reasonably attainable under a given set of conditions within a specified period of time (i.e., what you might or could achieve)" (Lehmann & Winer, 2005, p. 170). This concept gives what could happen if the product have full advertising, good distribution and was bought by all customers who could possibly purchase the product. It is difficult to estimate the market potential. Nevertheless, it is important since it determines the revenue. Another interesting term when looking at the strategy for both new and existing markets is forecasting. Lehmann and Winer (2005, p. 171), define this as "the amount of sales expected to be achieved under a given set of conditions within a specific period of time (i.e., what you probably will achieve)". This concept gives the expectations of what will happen with the product on the market. The major difference between the two given concepts is that forecast gives the expectations and potential gives what could happen if. Both potential and forecasting are time dependent and what might be the best strategy in the short-run may not be the optimal strategy in the longrun. Therefore, the company have to decide what the time frame for the overall strategy is in order to break down the strategy into sub strategies. As one can understand, both concepts depend on different conditions. To give a broad picture of these conditions they can be divided into four main categories: the actions of customers, firms, competitors, and in the overall environment like economy and culture (Lehmann & Winer, 2005). This means that there is no use of trying to determine fixed numbers for potential or forecast, since they are most likely changing over time. Lehmann and Winer (2005) present five main areas for estimating potential. These five areas are:

- 1. To make entry exit decisions
- 2. To make resource level decisions
- 3. To make location and other resource allocation decisions

<sup>&</sup>lt;sup>1</sup> Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for the company's products?

- 4. To set objectives and evaluate performance
- 5. As an input to forecasts

When it comes to methods for estimating the market and sales potential Lehmann and Winer (2005) presents the Analysis-Based Estimates and Sales Potential. The Analysis-Based Estimates are a form of formula-based method that can be designed in a process in three steps based on the specific product's buyers or users. The steps in the process are:

- 1. Determine the potential buyers or users of the product
- 2. Determine how many are in each potential group of buyers defined by step 1
- 3. Estimate the purchasing or usage rate

This method often results in notions of new segments and unexploited purchasing power that can be reached through new strategies. The second method mentioned above, Sales Potential, is the company-level equivalence to market potential. Conferring to Lehmann and Winer (2005), the sales potential is calculated through multiplying the estimated market potential by some market share figure. This figure should represent potential share that could be achieved by the company if optimal conditions were applied.

## 3.3.2 Competition

A company operating on a market has competition and the following sections describe models for assessing competition. Lehmann and Winer's (2005) framework *Competitor Analysis System* outlines questions to ask when analysing the competition. Porter's *Five Forces* determines the attractiveness to enter the market. *Four Levels of Competition* (Lehmann & Winer, 2005) describes how competitors can be categorized. Finally, *Managerial Judgement* (Lehmann & Winer, 2005) is a method for visualizing whether a competitor is on the market or not, or have the same product or a different product.

## 3.3.2.1 Competitor Analysis System

Lehmann and Winer (2005) suggest a framework for competitor analysis (Figure 9). Preferably, both primary and secondary data can be used as input to the analysis. The framework contains a number of key questions that should be asked. The purpose is to map the competitors' objectives and strategies and to understand what critical threats and opportunities a company exposes its competitors to. This will lead to the opportunity of accounting for this competition when forecasts and planning for future activities are made (Lehmann & Winer, 2005).

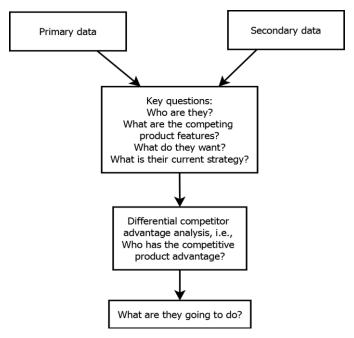


Figure 9: Competitor Analysis System (Lehmann & Winer, 2005).

## 3.3.2.2 Five Forces

Porter's five forces framework is a model that assesses the attractiveness of an industry. The model is based on five forces; buyers' bargaining power, suppliers' bargaining power, threats of substitutes, threat of market entry of other actors, and the competitive rivalry, (see Johnson, et al., 2012). According to Porter, there is a good profit potential when the forces are weak. When the forces are strong, it is difficult to be profitable and Porter advocates avoiding entering the market.

With buyers' bargaining power Porter means the extent to which the customer can bargain and get a better deal. Suppliers' bargaining power determines whether it is easy or difficult to get a good deal when purchasing products (Johnson, et al., 2012).

Substitutes are products or services that can be used instead of a product or service one offer. For example, aluminum is a substitute for steel in the automotive industry. If there are many substitutes to a product, the force is strong in Porter's framework (Johnson, et al., 2012).

The threat of market entry of other actors impacts the level of competition at the market. If there are high barriers to enter the market, for example it may implies high investment costs, it is likely to be less competition since not every company can enter the market. A strong force means that it is difficult to enter the market (Johnson, et al., 2012).

The competitive rivalry indicates the competition within the market (Johnson, Wittington et al. 2012). For example, are there many actors and do they have high incentives to stay on the market? If they have high incentives, for example if they have invested a lot in machinery, they are likely to stay and compete on the market trying hard to maintain or increase its market share.

# 3.3.2.3 Four Levels of Competition

When examining the competition, it is central to early identify the levels on which competition occurs, categorize it. Lehmann and Winer (2005) describes competition in four levels (Figure 10). On the first level, products compete with very similar products, for example Diet Coke competes with other diet drinks. The second level is product category competition, which to Diet Coke would be competition from drinks similar to Coke, for example other soft drinks. The third level of competition concerns generic competition, meaning all kinds of drinks, as coffee, bottled water, and beer. The fourth level of competition is budget competition (Lehmann & Winer, 2005) and on this level, the competition is broad, to Diet Coke a competitor can be fast food, video rental, baseball cards etc. It is based on the assumption that the customer has a limited amount of money which he/she wants to spend, but there is no rule for how he/she can spend it. It is considered very difficult to make a thorough analysis of the competition on this level (Lehmann & Winer, 2005).

# 3.3.2.4 Managerial Judgment

After the levels of competition are recognized and defined, there are different methods for determining competitors. Lehmann and Winer (2005) proposes the method Managerial Judgment of Competition which is based on a matrix (Figure 11). Products/services can be the same as before, or different. These can be launched in existing markets or in new markets. These aspects are combined, and categorised into four groups named A, B, C, and D. Category B is of special interest since it usually represents a competitor who already has some kind of connection to the market/market segment, e.g. through a franchise. This competitor can introduce a new product or service and rapidly become an important competitor (Lehmann & Winer, 2005). Products/services that are introduced on a new market/market segment belong to category C. Category D is characterized by companies that currently sell new products/services to markets/market segments which presently not are target customers (Lehmann & Winer, 2005). Competitors in category D can introduce a product/service to markets where the company are active, and quickly become a competitor (Lehmann & Winer, 2005). According to Clark and Montgomery (1999), managerial judgment usually concerns three major elements that are taken into account; competitor's size, competitor's success, and competitor's threatening behavior.

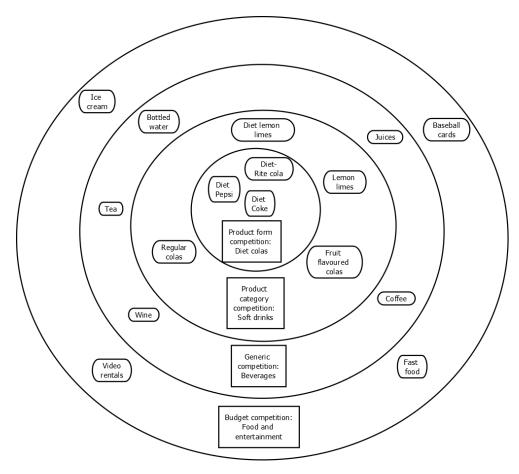


Figure 10: Levels of competition (Lehmann & Winer, 2005).

# Products/Services

		Same	Different	
Markets/ Customers	Same	А	В	
	Different	С	D	

Figure 11: Managerial Judgment of Competition (Lehmann & Winer, 2005, p. 38).

#### 3.3.3 Customers

In order to be successful on the market and understand its potential, it is important to identify who the customer is and what he/she is interested in buying.

## 3.3.3.1 Requirements and Requests

Customers have various requirements and requests when purchasing a product. A requirement is defined as something the customer is not willing to compromise on, not buy the product if it does not contain the required feature. A request is more of a wish from the customer, and the customer may buy it even if the product does not have the requested feature. The theoretical framework regarding customer requirements and regional demand is of importance to enable identification of results to research question number two<sup>2</sup>.

The regional demand has a major impact on the opportunity to sell the products. The following sections, *Customer Information*, *Order Winners and Qualifiers*, and *Segmentation* describe theory and models about regional demand and how to understand the customer.

## 3.3.3.1.1 Customer Information

Lehmann and Winer (2005) describe a method for consumer markets to understand what the customers want and what they are willing to pay for. The method consists of eight questions to be answered.

# 1. Who buys and uses the product

There may be a number of people involved in the process of decision of ordering a product, the actual purchase, and the end user. Also, the preferences of these people can differ (Lehmann & Winer, 2005). Therefore, it is important to know who the user of the product will be and which person it is purchasing the product. When describing the characteristics of a purchase, there are a number of variables that usually are considered (Figure 12) (Lehmann & Winer, 2005).

## 2. What customers buy and how they use it

Companies produce products or services, but customers buy benefits. It is important to know what benefits the customers want to pay for in order to enable providing them with the right product or service (Lehmann & Winer, 2005). The purchase pattern (how recent, how frequent, and profit contribution) of a customer provides information about how important a particular customer is or can be. These criteria are often referred to as the RFM approach – recently, frequency, and monetary value – and are used to rank customers in a database to

 $<sup>^2</sup>$  Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?

find high potential customers. Moreover, it is interesting to know the extent to which customers purchase a wide range of products, i.e. how important is it to have a large product assortment (Lehmann & Winer, 2005).

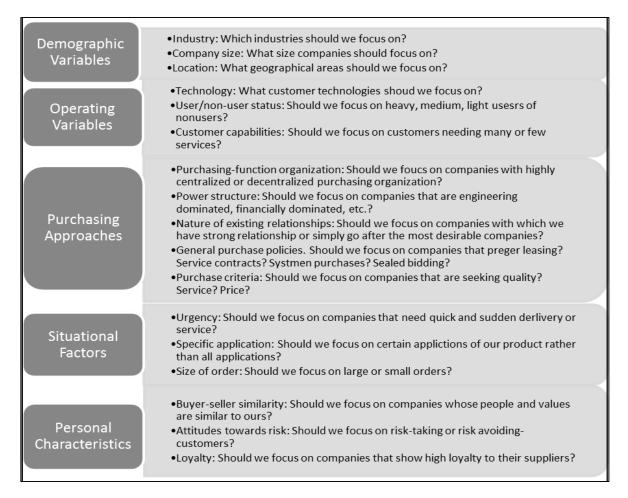


Figure 12: Variables to examine when conducting a customer analysis (Lehmann & Winer, 2005, p. 125).

## 3. Where customers buy

When decisions are made on how the products are distributed to the customer, the place of purchase has to be considered, e.g. in physical stores or online at internet. The impact it has on the result may be critical (Lehmann & Winer, 2005).

# 4. When customers buy

Some businesses are more busy during a certain time of the year (Lehmann & Winer, 2005), e.g. dependent on seasonal demand or related to sales and price reduction.

## 5. How customers choose

It is difficult to assess how a customer select a product, several criteria interferes and impact the decision (Lehmann & Winer, 2005). An important aspect is the extent to which a customer perceives information, for example commercial on television, advertisements, in-store personnel etc. How the customer chooses can be related to what he/she considers to be order winners and order qualifiers, see section 3.3.3.1.20rder Winners and Qualifiers. Usually, decisions are based on the Multiattribute Model. The model is built upon four issues:

- I. What are the attributes the customer use in order to define a product?
- II. Determine the perceptions of the products on the attributes
- III. Use importance weights
- IV. Combining the information to understand how the customer chooses

## 6. Why they prefer a product

The customer prefers a product depending on which value the product provides in a particular case, usually categorized into three groups (Lehmann & Winer, 2005):

- I. Economic especially important in B2B, can result in financial benefit
- II. Functional the extent to which a product satisfy a certain level of performance
- III. Psychological the customers feel of a product

# 7. How they respond to marketing programs

Investigate the customers' preferences regarding, price, availability and distribution, promotion, service etc. (Lehmann & Winer, 2005). A number of alternative methods for this are expert judgment and customer-based surveys.

## 8. Will they buy it (again)

Depending on the customers' experience of the product, they are more or less likely to buy it again. The perceived difference between expected performance or quality and experienced performance of quality will influence this (Lehmann & Winer, 2005).

To summarize, this eight-step process is expected to answer the critical questions when making a customer analysis. The following sections will provide more information about important aspects to add to the customer analysis.

## 3.3.3.1.2 Order Winners and Qualifiers

It is critical to understand what features of the product/service that are order winners and order qualifiers. Order winners are the attributes that makes the customer select a particular product. Order qualifiers are basic criteria which have to be fulfilled in order to be an option to the customer (Hill & Hill, 2009). Hence, a company should ensure that the product meet the qualifier criteria in order to be an option for purchase for the customer. But, it is important to offer better performance than the competitors on the order winning criteria (Hill & Hill, 2009). For a company it is critical to understand which criteria that are important to improve performance on, since it will not win additional orders if the "wrong" features are improved (Hill & Hill, 2009).

# 3.3.3.2 Segmentation

As customers have different preferences and requirements, it is useful to segment the customers into groups (Lehmann & Winer, 2005). There are a number of criteria that should be followed when segmenting customers. At first, a segment must be of sufficient size regarding potential sales. Secondly, the segment must be identifiable, which means that it should be possible to give the segment a suitable name which tells what kind of customers that belong to the segment. The third criterion concerns the possibility to reach the segment, through some specific channels, e.g. sports magazines, television etc. (Lehmann & Winer, 2005). Next criterion regards differences in respond. Preferably, segments respond differently to at least one component of the offering (e.g. price reduction or decrease in lead time). If there are no differences in the response, it is impossible to have specialized programs to deal with the different segments (Lehmann & Winer, 2005). Moreover, the customers within a segment should be similar to each other (coherent), or at least be more alike each other within one segment than similar to customers in other segments. The final criterion is that segments need to be stable and useful over time (Lehmann & Winer, 2005).

## 3.4 Trade Regulation

The definition of international trade (Nelson, 2000) is the activity when goods and services are exchanged over national borders. The export activity represents that the item or service are sold, and the import activity is the purchase of the same item or service (Nelson, 2000).

When trade is conducted over boarders, several areas need to be addressed in order to ensure compliance (Nelson, 2000).



Clarifying any potential barriers to trade, exploring the possibility of using trade incentives, and develop understanding for regulations regarding import and export facilitates the implementation of a new commercial process (Nelson, 2000). Information on these areas are supposed to simplify for the reader to understand issues related to research question number three and four<sup>3</sup>.

## 3.4.1 TRADE BARRIERS

There may be technical barriers to trade, which have to be handled to enable trade of the products (Kommerskollegium, 2013a). The barriers can include different categorization of the product, different standards etc. (Kommerskollegium, 2013a). To prevent creation of technical barriers to trade and eliminate existing barriers, World Trade Organization (WTO) works with establishing procedures to decrease and eliminate barriers. WTO's agreement applies to all member states and regulates a number of things (adopting and implementing technical regulations and standards. e.g. requirements on production methods defined in quality, safety, performance, symbols, testing methods etc. (Kommerskollegium, 2013c). Within the European Union, standardization of technical regulations has been made to simplify the free movement of goods (Kommerskollegium, 2013a). Regulations of technical barriers to trade can be of two kinds; mandatory authority regulations (laws and regulation) or voluntary standards (technical rules, standards and procedures) (Kommerskolleigum, 2013b).

## 3.4.2 Trade Agreements

A trade agreement is a contract between two or more countries, regulate in trade between countries. This includes the extent to which trade is conducted, trade policies, and payment flows between the countries, such as exchange rates and credits (Nationalencyklopedin, 2013a). Trade agreements are divided into bilateral trade agreements, which involve two countries, and multilateral agreements, which involve several countries (Nationalencyklopedin, 2013a).

A trade agreement widely used is General Agreement on Tariffs and Trade, GATT (Kommerskolleigum, 2013b). This was established in 1947 and its purpose is to regulate how trade policies are applied, provide a process to solve trade disputes, and to establish tariff rates (Kommerskolleigum, 2013b). The agreement is of special importance for countries not

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<sup>&</sup>lt;sup>3</sup> Which, if any, trade agreements or other governmental incentives in India could Axis benefit from?; and Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

part of the European Union, North America, and Japan. The reason of this is to protect the other countries from discrimination (Nationalencyklopedin, 2013b).

## 3.4.3 GOVERNMENT INCENTIVES

It is common that governments give companies different kinds of incentives in order to encourage the companies to act in a favorable manner for the country's economy and society (Dressler & Hickey, 2013). Examples of incentives include research and development, manufacturing (encouraging new expenditure), real estate (for investments in facilities and expansion), and human resources (to hire and educate new employees) (Dressler & Hickey, 2013). To take part of a benefit, the company has to send a complete application to the responsible authority (Dressler & Hickey, 2013). Some companies investigate the opportunity of benefiting from government incentive widely and it can for example impact a localization decision (Dressler & Hickey, 2013).

Tax incentives are reductions in tariffs and taxes, which are applied to attract companies to a region. Many developing countries have reduced tariffs and taxes for companies that establish a facility with the purpose to export the products. This is made to increase the economic development and create employment (Chopra & Meindl, 2004).

## 3.4.4 IMPORT AND EXPORT

Import is defined as the activity occurring when bringing a product into the customs territory (Flodgren, et al., 2010). Export is the activity occurring when a product is carried out of the customs territory. Customs is the whole procedure of collecting duties related to duty coated import and export activities in a country (Nelson, 2000). Also, the actual duties for import and export set by a country are included in the concept (Nelson, 2000). There are three aspects that determine the duty cost. These are what type of product it is, the products origin, and the value of the product (Flodgren, et al., 2010).

## 3.4.4.1 HS-code

World Customs Organisation (WCO) organize a global classification system to define product type by a specific number, called The Harmonized Commodity Description and Coding System (HS-code) (Tullverket, 2011). This number determines what duty cost will be active for the specific product (Flodgren, et al., 2010). Depending on the product it is more or less complicated to determine the HS-code. The code consists of six to ten digits divided in five categories of numbers as follows (Tullverket, 2011):

Chapter XX
 HS-number XXYY
 HS-sub number XXYY ZZ
 KN-number XXYY ZZ CC

## Taric-number XXYY ZZ CC VV

The KN-number is a code used for trade within EU and for export. The Taric-number is used for import. The product classification code gives information about the custom duty, if there is any other costs connected to the import, and if any licences are required for import or export, and are the base for statistics on import and export activities (Tullverket, 2011). For more details see Appendix A. It is always the exporter or importer that is responsible for assuring that the classification is correct, even if an agent or broker is hired for the calcification the company is responsible (Tullen, 2009). A customs broker is a firm or organisation that handles the import process for other firms or organisations by dealing with customs (Nelson, 2000). The broker is then responsible for distributing all required documents for clearing merchandise and often taking care of transport inland (Nelson, 2000).

# 3.4.4.2 Origin

A products origin can affect the custom duty that has to be paid, since some specific products from a specific country has a lower or even no custom duty (Tullen, 2009). It is also vital to know the origin of a product in order to get correct trade statistics. Country of origin is determined depending on where the majority of the work on the products is conducted (Nelson, 2000). The country of origin will be publicized by a specific certificate (Nelson, 2000). There are two different types of origin regulations to determine the origin of a product; the preferential and the general (Kommerskollegium, 2014). The preferential regulations determine if the product will have customs duty reductions due to free trade agreements. The general regulations are used for trade statistics and for restrictions of what goods can be sold from a specific country (Kommerskollegium, 2014). If all material and activities connected to the production of a product have taken place in only one country it is very easy to determine the country of origin (Kommerskollegium, 2014). Have there been production activities in several countries the country of origin will be where the last major processing took place. The last major processing will be if the product after the process will have a new classification code or if there has been a specific percentage rise of the product value. The origin regulations determine what type of processing that has to be performed in a country in order to set the origin in that country (Kommerskollegium, 2014).

#### 3.4.4.3 Product Value

The third aspect to be considered when determines the duty cost is the product value, usually called the customs value (Tullverket, 2010). Usually the duty cost is presented in percentage of the custom value of the product. This value must be specified even if there is a free trade agreement or other trade agreements. The value will be part of trade statistics. The main rule is that the custom value is the invoice price, called transaction value, plus costs related to the import activity minus some costs that should be subtracted (Tullverket, 2010). Costs related to the import that should be added to the transaction value are for example transportation

cost, insurance cost, value of material in the product, tolls used for the product (Tullverket, 2010).

## 3.4.5 TAX

Products and equipment shipped across international borders are subject to tariffs, which are duties that must be paid (Chopra & Meindl, 2004). Companies are likely to avoid supplying a market or establishing a production facility in countries with high tariffs since it increases the costs. However, due to trade agreements, there may be opportunities to ship products between involved countries without incurring high duties (Chopra & Meindl, 2004).

## 3.4.5.1 VAT

Value added tax (VAT) is a consumption tax of goods and services (European Commission, 2014), applied in all the steps of the supply chain and production process, from raw material to the end user. VAT is classified as a general tax that is indirect, meaning that the party paying the tax is not actually the party that is taking the actual costs (European Commission, 2014). Concerning VAT it is the consumers that are taking the actual cost. The tax is charged based on the value of the product as a percentage. In every step of the supply chain or production each taxable party can deduct the VAT paid to the taxable party in the previous step in the chain. This means that the tax paid by each party is the difference between the incoming and outgoing VAT, thus the tax is neutral no matter how many steps there are in the chain (European Commission, 2014).

## 3.4.6 Transfer Pricing

Transfer pricing is the price set on a transaction between a company and its foreign subsidiary (Skatteverket, 2014). The regulations is built upon OECD's<sup>4</sup> guidelines and with the arm's length principle, the pricing is made as if the transaction is made between two different companies not belonging to the same group of companies (Skatteverket, 2014). In the OECD member states, it is mandatory to follow the guidelines (Silberztein, 2009). However, the non-OECD countries are not always applying the OECD's guidelines, but they do it increasingly (Silberztein, 2009). Sweden is a member in the organization, whereas India is not (OECD, 2014). In 2007, the member states invited India to "enhanced engagement", which links the country closer to the organization (OECD, 2014). The pricing can to a large extent impact in which country the corporate tax is paid since it determines in which subsidiary the profit will be accounted for (Skatteverket, 2014). It is not easy to apply the arm's length principle, but it is critical (Deloitte, 2014). Tax authorities around the world control companies' transfer pricing in order to ensure that the OECD's guidelines are applied correctly in the member states (Deloitte, 2014).

<sup>&</sup>lt;sup>4</sup> The Organization for Economic Co-operation and Development (www.oecd.org/about).

## 3.4.7 Free trade zones

A Free trade zone, FTZ, is an area located within a country but outside the customs territory (Branch, 2001). Products shipped into an FTZ are not subject to tariffs and local taxes as long as they are kept in the FTZ. When the products are shipped out from the FTZ into the country or to another country, tariffs and taxes are applicable (Branch, 2001). The user leases a part of the free trade zone and can sometimes conduct simple configuration and repacking (Branch, 2001). It is used as an option when designing a distribution flow (Branch, 2001).

#### 3.4.8 Incoterms

Incoterms are globally recognized standards that can be included in contracts when goods are sold (International Chamber of Commerce, 2014). The incoterm rules contain definitions and interpretations of common commercial terms. There are several incoterms to choose from. As mentioned in the introduction, Axis delivers ExWorks Singapore. ExWorks is defined as "the seller delivers when it places the goods at the disposal of the buyer at the seller's premises or at another named place (i.e., works, factory, warehouse, etc.). The seller does not need to load the goods on any collecting vehicle, nor does it need to clear the goods for export, where such clearance is applicable" (International Chamber of Commerce, 2014b).

# 3.5 DISTRIBUTION FLOW

Distribution includes activities designed to move and store products in a supply chain, from the supplier to the end customer, between all intermediaries. Both cost and customer experience is affected by how the distribution is organized and executed (Chopra & Meindl, 2004). The purpose with the following sections is to give the reader necessary knowledge regarding distribution to understand the issues surrounding research question number four<sup>5</sup>.



#### 3.5.1 ROLES

A distribution flow includes intermediaries with different roles to create utilities and manage gaps. There are different types of utilities, but they are value adding activities, e.g. refinement of raw material or a product is available to the customer at the right time (Mattsson, 2012). Gaps arise for example when a products is produced and consumed in a different pace, or when customers are on many locations while the producer is based on few locations. There

<sup>&</sup>lt;sup>5</sup> Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

are five different roles of intermediaries; aggregation role, proliferation role, consolidation role, contact role, and variant creating role (Mattsson, 2012).

The aggregation role involves letting a distributor handle delivery of the right quantity to each customer. A large amount of products can be delivered from the manufacturing company to the distributor. Then, the distributor delivers smaller amount of products to each customer, which solves the problem with quantity gap between production batches and consumption order sizes (Mattsson, 2012).

The proliferation role can be held by a distributor having a warehouse close to the customers. Products can be delivered from the manufacturing company's warehouse to the distributor, who will deliver to the end customer with a delivery time that fulfills the customers' expectations. This role will solve the problem with distance gap between customers and producers different locations (Mattsson, 2012). The distance gap can also be reduced with the third role, which is the contact role. This simplifies the contact between the company and the customer and can be made through systems for customer service, return flow of products etc. (Mattsson, 2012).

A distributor with a variant creating role provides a final customization of the products close to the customers (Mattsson, 2012). The reason for doing this can be to avoid transport of small quantities from the manufacturer directly to the customer. Also, the customers can be offered a wider range of customer specific products. This role solves mainly the problem with variant gap, which arises when the customers require a larger product variety than the manufacturer can produce to a financially justified cost. In addition, the variant creating role reduces the quantity gap and distance gap (Mattsson, 2012).

Finally, the consolidation role is held by a company distributing several companies' products together. That is, a customer can get products delivered from several manufacturers at the same time, delivered by one distributor. This enables reduction of the number of contact points between the manufacturers and the end customers. This role solves the assortment gap that arises when a customer wants a wider range of products than a single manufacturer can produce (Mattsson, 2012).

## 3.5.2 DISTRIBUTION FLOWS

When utilities and gaps are assessed and managed, there are a number of alternatives of distribution flows available (Figure 13), which can be used when designing the distribution. The product can be sold directly to the end customer, but it can also be sold through channels including one or several intermediaries (Mattsson, 2012).

Depending on the prevailing conditions, it can be advantageous to use intermediaries or to exclude the intermediaries (Table 3). To manage the gaps described earlier, it is often too costly to let the manufacturer deliver directly to the end customer. However, there is not one distribution design that fits all companies, the solution that is most cost effective for each company should be found (Mattsson, 2012).

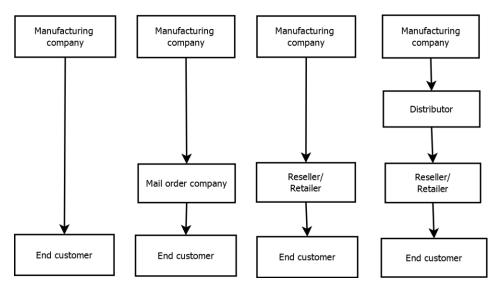


Figure 13: Distribution channels (Mattsson, 2012, p. 225).

Table 3: Factors impacting the choice of using intermediaries (Mattsson, 2012).

Apply direct delivery	Use intermediaries		
Few end customers	Many end customers		
Make to order	Frequent orders		
Tender process	Requirement on fast delivery		
Repurchase	Diversified customer base		
Wholesaler is missing in the branch	Standard product established		

A distribution channel has two components: a transaction channel and a material flow channel (Mattsson, 2012). The transaction channel includes the administrative activities when a product is sold and purchased, for example placing an order, order confirmation, and invoicing. The material flow channel concerns the physical flow of products; it has to be assessed to what extent the distributors should keep stock (Mattsson, 2012). The reason of dividing the distribution channel into a transaction channel and a material flow channel is that these can be organized differently and have different paths through the distribution chain. It is possible to separate the two flows if there is an effective exchange of information. Figure 14 illustrates an example of how the transaction channel and the material flow channel can be

separated (Mattsson, 2012). The left figure illustrates when there is one information flow between the manufacturing company and the intermediary, and a separated flow of information between the intermediary and the end customers. But, the material is transported from the manufacturing company directly to the end customers without being handled by the intermediary company. In the other case, illustrated in the right figure, there is two flows of information; one between the manufacturing company and the end customers, and a separated information flow between the manufacturing company and the intermediary company. However, the products are transported from the manufacturing company to the intermediary company, who keeps products in stock. The products are later transported from the intermediary to the end customers. Hence, the characteristics are different; in the first case the manufacturing company does not have any communication with the end customers expect delivering the products, whereas in the second case the manufacturing company communicates with the end users and tell the intermediary company when to deliver products to the end user.

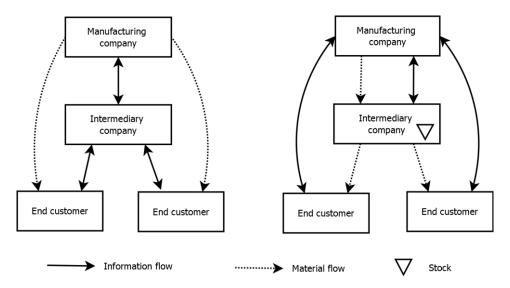


Figure 14: Information flow and material flow (Mattsson, 2012, p. 227).

## 3.5.3 Sтоск

In order to manage the gaps and the utilities explained earlier in this chapter, it is usually necessary to keep stock in the distribution chain (Jonsson & Mattsson, 2011). This can include using several stock points. Depending how many stock points there are in a distribution chain, the extent to which it is centralized or decentralized is measured (Jonsson & Mattsson, 2011). The less stock points, the more centralized distribution channel.

The degree of centralization impacts aspects like closeness to customer, transport costs, delivery time, economies of scale, cascading effect, reduction of non-value adding activities,

and risk of obsolescence (Jonsson & Mattsson, 2011). On the one hand, the advantages with a decentralized distribution channel are closeness to customer, which results in short delivery time. Also, if the end customer perceives that the supplier is close, the customer will also think after sale support is close, which is good and can be a good advantage in getting new customers. The transport costs in relation to the value of the products are considered to be lower with a decentralized flow, which is important to consider especially when the customers buy small quantities in high frequency. On the other hand, a centralized distribution flow results in economies of scale and it is possible to maintain a higher service level with the same inventory level (Jonsson & Mattsson, 2011). The cascade effect, which is defined as fluctuations in demand that are amplified upstream in the chain, is more difficult to handle the more decentralized the distribution chain is. The cascade effect complicates keeping a high delivery service if the company at the same time wants high capacity utilization. Moreover, the number of non-value adding activities is reduced when a centralized distribution flow is applied. For example, the amount of time spent on taking products in and out from the warehouse and administration that is required when more parties are used, is reduced. Finally, an advantage with a centralized flow is reduced risk of obsolescence. That is, when products are handled many times, there is a greater risk for default somewhere along the process, which for example can result in products allocated to wrong place or wrong amount of products available (Jonsson & Mattsson, 2011).

## 3.5.4 Cross-border Distribution

A multinational company selling products abroad have a few alternatives to choose from when organizing the distribution (Flodgren, et al., 2010). A company registered in the country may be needed and the company will then be subject to tax (Flodgren, et al., 2010). Following sections describe possible alternative distribution flows. Figure 15 shows symbols, developed by Flodgren et al. (2010) that can be used in illustrations of distribution flows. These symbols are of interest since products entering a country has to pass customs clearance, there is a possibility of passing a free trade zone, and it is also common in distribution flows that products are kept in stock at some point. Moreover, it may be of interest to know if the material flow and the payment flow take the same path through the distribution chain.

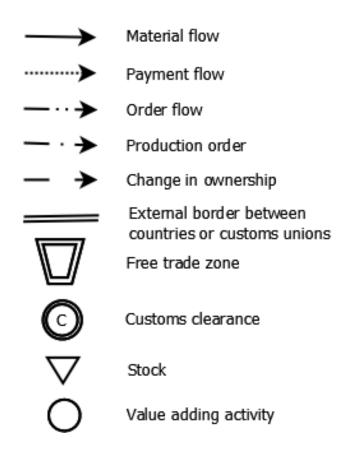
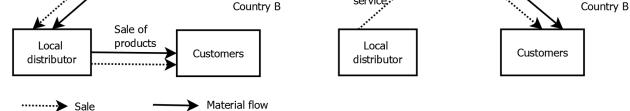


Figure 15: Symbols that can be used in illustrations of distribution flows (Flodgren, et al., 2010).

## 3.5.4.1 Conventional distribution models

There are two basic models for conventional distribution; the buy-sell model, and the agency model (Figure 16) (Flodgren, et al., 2010). A company (the principal) using the buy-sell model has established a local subsidiary (local distributor) with a sales team. The local subsidiary imports the products into the country with regards to arm's length principle, and sells it to customers within the country (Flodgren, et al., 2010). The subsidiary gains a certain profit since it takes the risk of damage on products, products that cannot be sold or similar (Flodgren, et al., 2010). A company using the agency model has a sales team employed at the local subsidiary and instead of importing the subsidiary acts as an agent to the principal. Hence, the local company sells the products in the principal's name and does not own the products (Flodgren, et al., 2010). Through this model, the local company takes very little risk and since the arm's length principle is applied, the local company gains only a small profit (Flodgren, et al., 2010). However, in many countries a foreign company must have a dependent agent with permanent establishment (Flodgren, et al., 2010).





service.

Country A

Figure 16: The buy-sell model and the agency model (Flodgren, et al., 2010, p. 139).

# 3.5.4.2 Limited risk distributorship

An alternative to the buy-sell model is the limited risk distributorship, with the difference that the local distributor (local subsidiary) is exposed to a smaller risk (Figure 17) (Flodgren, et al., 2010). There are different options available for how this can be organized. For example, the principal can take credit risks, or the principal can promise to buy unsold products back (Fodgren et al 2010). A third option is to let the principal buy back the products just before they are sold to the end customer, which is called flash title. The principal pay the customer's price minus a percentage that will be the local distributor's profit (Flodgren, et al., 2010).

### Limited risk distributor model

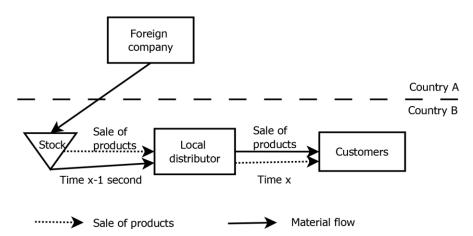


Figure 17: Limited risk distributor model (Flodgren, et al., 2010, p. 140).

In order to use this model, the country must allow foreign companies to own stock of finished products within the country. Especially on emerging markets, the regulations are restrictive. Also, the issue of whether taxes are applicable has to be investigated (Flodgren, et al., 2010).

#### Commissioner model

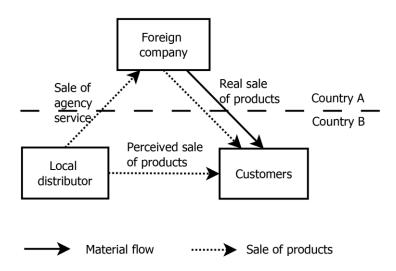


Figure 18: Commissioner Model (Flodgren, et al., 2010, p. 141).

### 3.5.4.3 Commissioner model

The commissioner model is a variant on the agency model, (Figure 18). The local company has an agent contract with the principal so that the local company can serve the customers (Flodgren, et al., 2010). The customer often perceives the local company as the seller, but the business is made in the principal's name (Flodgren, et al., 2010).

The company will be impacted whether the principal has a permanent establishment or not. According the OECD model, there is no clear answer since there seems to be a difference between countries applying British law and countries applying other laws (Flodgren, et al., 2010).

Using this model, the principal can hold stock in the country, but questions regarding indirect tax arise. Flodgren et al (2010) indicate an advantage for companies based in the US using the commissioner model compared to the apply distributorship with limited risk. The local distributor's profit depends on the risk the distributor takes (Flodgren, et al., 2010).

To conclude, Flodgren et al (2010) highlights a number of challenges linked to redesign of supply chains when considering taxes. It is a complex process to optimize taxes and often political controversial. Moreover, countries do not apply the same rules and even member

countries in OECD do not always consider it possible to apply rules likewise (Flodgren, et al., 2010). Prior to making decision on redesigning a distribution chain, a company should make robust assessments of how transfer pricing will be impacted, how the risk will change, and ensure that a substantial economic benefit will be gained (Flodgren, et al., 2010). Moreover, application of the arm's length principle is not globally agreed upon, which can cause difficulties knowing which documents that are required in each state, risk of double taxation, and other problems arising from tax authorities failing to agree (Flodgren, et al., 2010).

# 3.6 The Describing Model

In section 2.3 Application on this Master's thesis, the research framework was presented (Figure 19). It describes how the five research areas together build up a framework to discuss the four research questions, with distribution as the final issue.



Figure 19: The pyramid model

In each of these research areas, a number of factors are included. These factors are identified through understanding Nelson's framework for import/export decision, and Chopra and Meindl's framework for network design decision, and how they together contribute to this master's thesis. Also, models and theory from this chapter is included in each research area. The factors included in the research areas are listed below, see Table 4.

Table 4: The factors included in each research area according to the framework for this master's thesis.

Factors in each research area			
Corporate strategy			
Corporate strategy			
Strategic fit			
Macro environment			
• Demography			
Culture			
• Politics			
• Economy			
Technological			
Natural			
Sales and market potential			
Competitors			
Customers			
Industry analysis with sales and market potential			
Trade regulation			
Trade barriers			
Trade agreements			
Government incentives			
Import			
• Tax			
Transfer pricing			
Free trade zones			
Incoterms			
Distribution Flow			
<ul> <li>Conditions for the distribution flow</li> </ul>			
• Roles			
Distribution flow			
Distribution over international border			

To conclude, the research framework is developed to show important aspects that should be taken into account when investigating a company's sales and market potential, requirements and requests on the market, trade agreements, and distribution flow.

# 4 METHODOLOGY

In this chapter, the methodology used for this thesis is described. To illustrate for the reader how the project process has been designed and how the project was conducted. First, the scientific approach is presented, it is followed by a description of the project process.

# 4.1 Scientific Approach

All researchers facing a research question or problem will use a way of designing their work process to fulfil the purpose. The work can be of varying character, and different processes are more or less suitable for a specific research problem (Denscombe 2009). The work process can be seen as a framework for how the research is conducted, the so called research method or research approach. The selection of method can be more or less reinforced by the researcher, and this will affect the scientific credibility of the study. A research that uses a reinforced and well-known research approach will gain better trustworthiness in its field. Important to consider when selecting research method is that it suits the objectives of the research, the purpose, and will result in reliable outcomes (Denscombe 2009). Since there are a number of different methods that can be used, the one that best can reach the purpose given the available resources should be selected (Björklund & Paulsson, 2012).

## 4.1.1 THE CONSTRUCTIVE RESEARCH APPROACH

For this master's thesis project, the Constructive research approach discussed by Lukka (2003) and Oyegoke (2011) has been selected. This approach is focusing on solving an existing problem or finding a solution to a given situation, by creating a problem solving construction applicable in practice. The core activities in the method are the identification of a real-world problem, the co-operation between the researchers and an organization in the industry, obtaining a relevant knowledge base, innovate a construction that solves the problem, examine the applicability of the construction, and discuss the theoretical contribution (Oyegoke 2011). It should be noted that the process is not linear from one step to another; it is a dynamic process that goes back and forth through a number of steps.

In this project, it is the four research questions<sup>6</sup> that correspond to "the problem" in the research method. That is:

Examining the market opportunity for the company in India

<sup>&</sup>lt;sup>6</sup> Identification of the research questions were made in Chapter 1 Introduction. Relevant theory is presented in Chapter 3, and the empirics can be read in Chapters 5.2 India, and 0 Result of Step Three - Empirics. The problem solving construction will be executed through a workshop, see section 4.3.4. The applicability of the solution will also be discussed during the workshop.

- Map requirements from the Indian customers
- Identify useful trade agreements
- Evaluate the distribution of the company products to the Indian market

The model contains both practical and theoretical activities which fit the purpose of this master's thesis, since the researchers want to, in close collaboration with the company, develop a solution that can be used in practice.

The Constructive research approach is still developing as a research method in different fields. The leading field so far is business administration, but the potential application field is broad (Lukka 2003). Oyegoke (2011) underlines that the approach is not a new concept, since it has been used for a number of research projects focusing on constructing new solutions like new products, new medical treatments, new budget systems etc.

# 4.2 THEORETICAL PROCESS OF THE CONSTRUCTIVE RESEARCH APPROACH

The theoretical process of the Constructive research approach can be described trough a number of steps. Lukka (2003) divide the process into seven steps while Oyegoke (2011) presents six steps of the process. Although, Lukka (2003) and Oyegoke (2011) covers the same activities in both project descriptions. The process according to Oyegoke (2011) is illustrated

Figure 20. Below, the process will be described according to Lukka's (2003) seven steps (Figure 21).

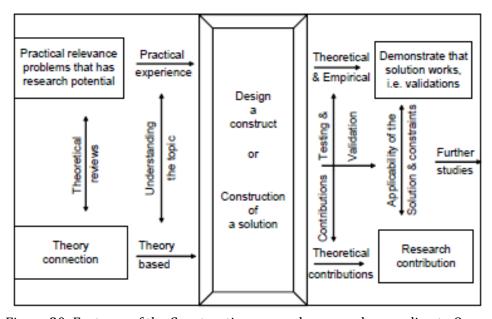


Figure 20: Features of the Constructive research approach according to Oyegoke (2011).

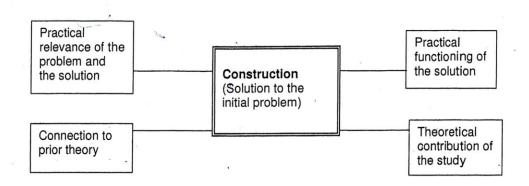


Figure 21: The central elements in the Constructive research approach according to Lukka (2003).

Step 1: Find a practically relevant problem, which also has potential for theoretical contribution

The first step creates the base for the following steps in the process and here the importance of selecting a relevant research topic or problem is stressed (Lukka 2003). This choice is the base of any research project and will be vital for the rest of the study. The problem should have research potential and be of interest as a theoretical contribution (Lukka 2003). Three main ways of identifying a research problem is presented by Oyegoke (2011); anecdotal indication, identification in practical experience, and indication from peers' theoretical work.

Step 2: Examine the potential for long-term research co-operation with the target organization

After defining the research problem the researcher should find an organization for cooperation, and assure that this organization is interested in long-term research (Lukka 2003). It should be secured that both parties are devoted to the project. Both the researchers and key people from the organization concerned should contribute to the project throughout all steps of the process and knowledge should be jointly developed (Lukka 2003; Oyegoke 2011). Contribution from both parties has been showed to be a key success factor for implementation of the final solution (Lukka 2003).

Step 3: Obtain deep understanding of the topic area both practically and theoretically

An understanding of areas related to the identified research problem should be achieved. This understanding should be gained theoretically trough awareness of existing literature in a literature review (Oyegoke 2011) and practically trough a field study that can contain observations, interviews and analysis of archives (Lukka 2003). The knowledge achieved will be the key for both further progress in the project and for the identification of the theoretical contribution.

Step 4: Innovate a solution idea and develop a problem solving construction, which also has potential for theoretical contribution

The goal in this step is to develop a problem solving construction that can be applied to solve the research problem (Lukka 2003). The innovation of new ideas for the problem solving construction is based on both qualitative and quantitative data, collected in step three. The development is an iterative process going through rounds of innovation followed by some type of slight practical implementation of the solution, in order to reach the final problem solving construction. This process can be very time-consuming, depending on how many rounds of innovation and practical testing is needed. When starting a new turn in the iterative process this will be done with new information and new understanding gained form the practical testing made (Lukka 2003).

# Step 5: Implement the solution and test how it works

In this step of the process the final innovated problem solving construction will be tested both on a theoretical and a practical level by fully implementing the solution. Lukka (2003) enlightens that this step is very characteristic for the Constructive research approach since it takes the solution into real practice testing. In order to succeed with the testing, both the researchers and the organization need to be deeply committed to the implementation. Oyegoke (2011) suggests two main approaches for the test, either a pilot case study or a demonstration using research tools and techniques based on triangulation.

## Step 6: Ponder the scope of applicability of the solution

After implementing the problem solving construction, both the researchers and the related organization has to evaluate the process so far, to gain an overview of the outcome in relation to the involvement (Lukka 2003). Depending on the results from step five it can be discussed if the problem solving construction may be implemented in other organizations or what improvements the solution requests to reach its full potential. Oyegoke (2011) stress the importance of validation in all stages of developing the construction, not only in this step but also during the whole process.

# Step 7: Identify and analyse the theoretical contribution

In all academic writings the theoretical contribution is of great importance (Bryman et Bell 2011). It may be an interesting topic for other researchers in further research projects. In this step, the researcher should relate the findings in the project back to prior theory. The project's potential contribution to gaps in the existing theory should be specified. Furthermore, the researcher should indicate areas for further investigation and contributions to new research topics. To accomplish this step of the project it can help the researcher to get

an overview of the whole project, in order to detect the theoretical contribution. Lukka (2003) presents two types of theoretical contribution that will be relevant for this type of research method. These are the actual new problem solving construction and the use of existing theory that is tested in the construction and then developed. Lukka (2003) also discusses general alternatives for theoretical contribution in research projects; novel theory, improvement of theory, testing of theory, and novel areas for applying theory.

# 4.3 THE APPLIED PROCESS IN THE PROJECT

In this section, the applied process of this project will be described (Figure 22). The applied project process has been modified from the methodology presented by Lukka (2003) and Oyegoke (2011). The reason for these modifications is to adapt the process to the given situation and its conditions. The major modifications are described in the list below. The project process steps are named one-six and the academic process steps are named 1-7.

- Step 1 and 2 from the academic process is combined into step one in the project process; finding an organization to cooperate with and define a relevant problem.
- Step two in the project process is focused on planning and establishing frameworks for theory and methodology.
- Step three in the project is identical with step 3 from the literature: obtain understanding of the topic area both practically and theoretically.
- The practical testing of the problem solving construction in step 4 of the academic process is accomplished through a workshop with key people from the organization in the project process.
- A full implementation of the construction advocated in step 5 of the academic process will not be applied in the project process, since it is not possible within the project scope. Instead, step five in the project process will contain a discussion of the applicability of the problem solving construction.
- The final step in the project process will, as well as the final step in the academic process, describe the theoretical contribution from this master's thesis.

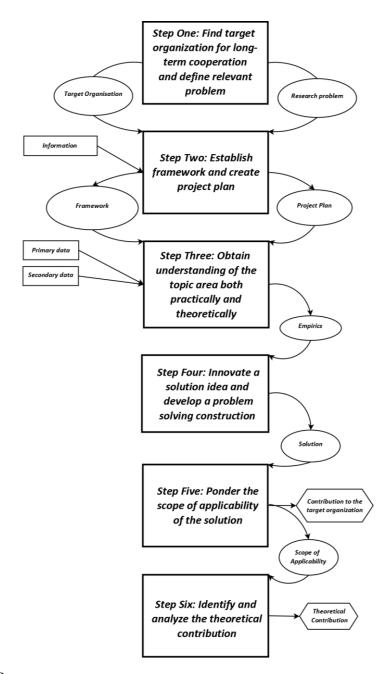


Figure 22: Project Process

# 4.3.1 Step one – Find Target Organization for Long-term Research Co-operation and Define Relevant Problem

First a relevant problem was identified for further research. Furthermore, a good cooperation between the company concerned and the researchers were developed. In this master's thesis the organization concerned, the company, was closely involved in defining the topic for the project, since the organization has the best knowledge regarding internal activities that would be of interest to investigate further. After the topic was defined, the research questions was jointly refined and reviewed by the university supervisor, see below, in order to integrate the interest of an academic contribution from the project. The company has a high interest in the project's topic and has therefore been keen on co-operating with the researchers and provide information needed. The research questions are:

- a) Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?
- b) Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?
- c) Which, if any, trade agreements or other governmental incentives in India could Axis benefit from?

The above three research questions will give valuable input to the fourth research question;

d) Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

## 4.3.2 Step two – Establish Framework and Create Project Plan

emphasizes two Step planning of the project, includes setting up a project plan with time schedule for all activities and their deliverables, finding suitable theory and methodology frameworks. which fits the purpose and required outcome of the project. The researchers have put a lot of effort in this step since it created the basis for the continuity of the whole project and the preconditions for completion of the project.

In order to understand the

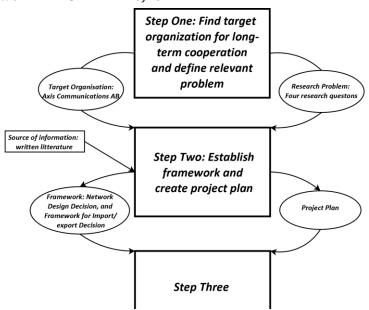


Figure 23: Initial steps of the research process.

project scope and reach the purpose, the researchers have started from the "back" with detecting what data is required to present a recommended solution to the organization. In this process, relevant research areas for this project has been identified through combining Chopra and Meindl's (2004) framework for network design decision with Nelson's (2000) framework for import/export decision (see section 2.1). Moreover, data sources for each specific research area in the theory framework have been identified and validated by the researchers. From these conditions, an overall time-plan has been created with all activities in the project process.

Simultaneously with the development of the theoretical framework, the methodology for the project was established. The scientific approach is described in section 4.1 and the project process in section 4.3 of the report. Figure 23 illustrates how the Constructive research approach is applied on this project.

# 4.3.3 Step three – Obtain understanding of the topic area both practically and theoretically

In the process of collecting data the work was structured according to the research areas; corporate strategy, macro environment, sales and market potential. trade regulation, distribution flow. In thesis project the main methods used for collecting the required data<sup>7</sup> are desk research and interviews, which can be seen in Figure 22 as two activities. Additionally, observations have also been used to some extent. These methods have been selected since they will lead the researchers to the purpose, given the available resources. Obtained data can be of two characters, primary or secondary data. Lekvall and Wahlbin (2001) define primary data as core data collected by

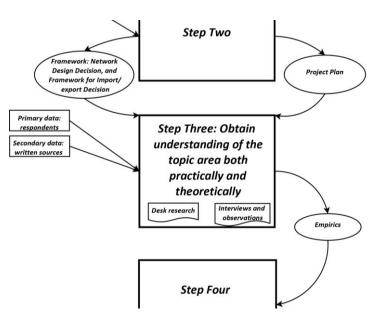


Figure 24: Step three in the research process.

 $<sup>^{7}</sup>$  There are several methods for data collection. Björklund and Paulsson (2012) presents six different methods to achieve data; desk research, oral presentation, interview, survey, observation, and experiment

the researcher from the original source and secondary data as already existing data that has been collected by someone else for another reason. In this project information has mainly been collected and analysed in two steps. In the first step secondary data has been collected in a desk research. This data constitutes the base for the construction of the interview guides used in step two. Step two includes field studies in the form of interviews, in Lund, Stockholm and India. Figure 24 illustrates step three of the project process and Table 5 outlines which sources of information that are used for each research area in the project. The result of step three is empirical data, which will be used in step four of the process. The following sections describe a number of concepts that are of interest because of the project's academic approach. Also, the concepts will be explained in light of how they are applied in this project.

## 4.3.3.1 The Desk Research

The first part in step three is based on a desk research and focus on knowledge about the targeted market, India; the industry, video surveillance; and the company concerned. The information has been collected from reviewed literature such as scientific papers, reports, books and webpages. Organizations that have been a source of information are for example the Swedish embassy in India and Business Sweden.

## 4.3.3.2 The Field Study

The data for the second part of step three in the qualitative study have been collected from interviews and observations. The interviews can be divided into four groups of interviewees and from there into subgroups. The four main groups are the company employees at the head office in Lund, the company employees in India, the company partners in India, and interviews with other companies and organizations of interest for the study. Such organizations are the Swedish embassy in India, Swedish Chamber of Commerce, Business Sweden, and Ministry of Finance.

#### 4.3.3.3 Data and research area

The four main groups and the subgroups of interviewees and the research areas they are connected to can be seen in Table 5. The connection between research area and published data sources can also be seen. In the table the data source or interviewee that is connected to a specific research area is marked with an X on the row of the research area.

Table 5: Connection between research area and both published data source and interview.

	Research areas	Corporate strategy	Macro- environment	Sales and market potential	Trade regulation	Distribution flow
	Printed literature	X			X	X
Data source	Digital publications		X		X	X
	Axis Intranet	X				
Interview	Axis Sweden	X	X		X	X
	Axis India	X	X	X	X	X
	System Integrators		X	X	X	X
	Distributors		X	X	X	X
	Broker		X	X	X	X
	Business Sweden		X	X	X	X
	Swedish company with activity in India		X		X	X
	Supply chain solution company		X		X	X
	Swedish embassy in India		X		X	X

## 4.3.3.4 Primary Data

The population<sup>8</sup> for the qualitative part of this study will be employees at the company, both in Sweden and India, system integrators that are part of the partner program, and distributors working with the company in India. Additionally, employees connected to India at Ericsson in both Sweden and India, employees at the broker company Kuehne+Nagel, employees at Business Sweden in India, employees at Embassy of Sweden, and employees from Flextronics both in Sweden and at one production site in India will also be part of the respondents. The reason for having these external companies is presented here. Ericsson was picked as a

<sup>&</sup>lt;sup>8</sup> There are two main approaches for assembling primary data, which are observing or asking questions (Lekvall & Wahlbin, 2001). The source can be an individual or a group of individuals (Bryman & Bell, 2011; Lekvall & Wallbin, 2001). Several respondents can give information about one research area, and reversed one respondent can give information about several research areas. The respondents selected are part of the population, which are the individuals of interest for interviewing in the study (Bryman & Bell, 2011). The research areas in this project are; corporate strategy, macro environment, sales and

successful Swedish company on the Indian market and is viewed upon as an interesting source with know-how from the market. Kuehne+Nagel is a logistics company with good knowledge of handling import in to India and the company has relations to the company in other countries. Business Sweden and the Swedish Embassy were selected due to their knowledge of Indian laws and Swedish companies in India. Flextronics is a contract manufacturer with good relations to the company and are focusing on assembly, configuration and repair on the Indian market, which means they have knowledge of market regulations, import/export activity etc.

## 4.3.3.5 Sampling

Before the assembly of data can take place a reliable source of information has to be identified, that means that the sample has to be selected of the population. The sample is the individuals selected for being respondents in the research (Bryman & Bell, 2011; Lekvall & Wallbin, 2001). It is of high importance that the right sample is identified; different sources can give different answers to the exact same question (Lekvall & Wahlbin, 2001). This implies that the final outcome of the study is depending on that a valid representative sample of the population is selected (Bryman & Bell, 2011). In accordance with the criteria for this master's thesis project, the number of respondents for the qualitative part of the study has not been pre-set. This was because the information gained during the process implied how the set-up for next step of information gathering would be, the researchers did not know on forehand what the assembled information would point at. The researchers had to evaluate the information needs multiple times in order to achieve the required and reprehensive amount of data. As Bryman and Bell (2011) points out, the sample size depends on a set of aspects and there is no way to calculate a correct number. Aspects that affect the number of respondents are e.g. available resources and time, type of research, the heterogeneity of the population, and the need of details (Bryman & Bell, 2011).

For this project a non-probability sample<sup>9</sup> is used, which means that the selection method has not been of random character and that some individuals in the population had a higher chance of getting selected. The sample process has been both convenience sampling and snowball sampling. The convenience sample includes individuals that simply are available to the researchers. However, data collected from a convenience sample are not possible to fully generalize (Lekvall & Wahlbin, 2001) (Bryman & Bell, 2011). Snowball sampling means that the researchers first identify some respondents interesting for the study and out of their references more respondents can be identified, just like forming a snowball (Bryman & Bell, 2011). In this project the first identified respondent for the snowball sampling was the

<sup>9</sup> Methods for selecting the sample can be either based on probability or non-probability (Lekvall & Wahlbin, 2001) (Bryman & Bell, 2011).

supervisor from the company, in Lund. Additional respondents to the sample were suggested by the supervisor, and thereafter from those respondents and so on.

Regarding the convenience sample, details about potential respondents relevant for this study have been gathered through internal information at the company. From these details different criteria for sampling was set up by the researchers to fit the objectives and limitations of the study. The criteria's for an appropriate respondent from the population was set to:

- Employees connected to steps in the supply chain
- Sales in Asia
- The company's activities in India
- Partners in the partner model working with the company in India
- Other players of interest for the company's activities in India

These criteria have been discussed with the primary contacts from the company's Indian team prior to the field study. Thereafter the Indian team have been responsible for selecting the respondents, because the Indian team has the best local knowledge and relevant contacts. Regarding the respondents from Ericsson the sampling method has also been snowball sampling. Here one initial contact at Ericsson connected to their activities in India have further suggested a respondent in India relevant for the research topics. The respondents at Flextronics and Kuehne+Nagel have also been selected trough snowball sampling trough respondents at the company in Lund. The Embassy of Sweden and Business Sweden in India was selected trough convenience sampling.

The methods used for sampling have both advantages and disadvantages regarding the validity of the study (Lekvall & Wahlbin, 2001). Respondents can be left out due to weak connections to the initial respondents, so there is a risk of having a misrepresent sample because some individuals are more likely to be part of the sample than others (Lekvall & Wahlbin, 2001). Selecting respondents based on personal contact, like the snowball sample, can result in a sample with individuals from the same social context. This has to be taken into consideration when looking at the validity of the collected data. Bryman and Bell (2011) emphasize that results from a study only can be generalized, if even that is possible, within the population from where the sample was selected. When talking about non-probability methods for sampling often it is not even possible to generalize for the population, since it can be hard to identify the actual population (Bryman & Bell, 2011). In this project it is expected that the results can be generalized for the company concerned, but generalizing for other companies should be done with excessive restraint.

#### 4.3.3.6 Interviews

In this master's thesis project the type of interviews used are unstructured 10, personal and group interviews with open questions. The interview guide is presented in Appendix B. The reason for this is to meet the required preciseness of the obtained information by taking advantage of the freedom with adapting questions to the situation. Unstructured interviews also give the opportunity for the researchers to gain information they did not know to ask for before the interview was conducted, since the answers can be composed according to the interviewee's knowledge. This will be of importance since the research areas<sup>11</sup> for this thesis project is to some extent new to the researchers. These research areas will be covered and different respondents will be relevant for different topics. Hence, the same questions won't be valid for all respondents. Additionally, when conducting interviews with people in India communication problems connected to differences in culture and language are easier to overcome with face-to-face contact. Downsides that the researchers have to handle according to the unstructured interviews in this project are that they are time consuming and it is hard to estimate the required time due to the willingness of the respondent to talk (Bryman & Bell, 2011). It is also very time consuming to administrate the interviews, record the answers and process the collected information. This has to be considered when forming the project time plan. Bryman and Bell (2011) suggests that video or sound recording is used for unstructured interviews, although they make a precaution for the time required for transcription of open questions out of a record.

Data has also been collected by unstructured observations, meaning that no observation schedule has been used for the recordings (Bryman & Bell, 2011). This observation method is often combined with non-participation observations where the observer is not part of the activities around (Bryman & Bell, 2011). This methods are used since the researchers have been working from the company's head office in Lund and thereby been observing the origination. Although, it has to be emphasized, that the observations has been a consequence of the presence at the office and not an actively used data collection method.

<sup>&</sup>lt;sup>10</sup> Depending on if the question is asked in an open or closed format and if the interview is of structured or unstructured character, the questions asked in the interview can be structured according to an interview schedule or free for discussion between the participants (Bryman & Bell, 2011). The open format allows the interviewee to compose his or her own answer, while in the case of closed format the interviewee will be presented a set of premade answers to choose from (Bryman & Bell, 2011). Hence, the questions are presented in a different way for each specific interview.

<sup>&</sup>lt;sup>11</sup> Corporate strategy, macro environment, sales and market opportunity, trade, and distribution

In the report all the interviews are anonymised<sup>12</sup> in order to have the interviewees comfortable in telling their view. All the interviews are numbered and the references inside the report are providing the number, which can be found in the interview tables in Appendix C.

## 4.3.3.7 Secondary Data

Secondary data is collected from already consolidated and published data (Lekvall & Wahlbin, 2001). For this study the secondary data has primarily been collected by the method desk research. The sources of data have been the Internet, market research institutes, consultant reports, official statistics, academic literature and university course material. In this project, analyses conducted by private companies are used to forecast the development on the video surveillance market in India. Additionally, a number of consultant reports are used as data sources especially for the area of legal aspects. The reasons for using these types of data sources are that the researchers for this project do not have an academic background in the field of legal aspects, and don't have the knowledge to read statute books. Therefore, the researchers have to rely on secondary sources such as consultant reports since they are conducted by law experts and hence can give more accurate information.

When the data is obtained, it is essential to validate it with managers and sales people in order to ensure it is reasonable (Lehmann & Winer, 2005). To assure the validity of the data used in this project, there has been a set of criteria that the researchers have checked for each literature source. The criteria are presented in the framework below. The criteria have been established by the researchers with guidance from the University library at Lund University.

#### Framework for validate literature sources:

- I. Author (position, previous experience, publications?)
- II. Where the paper is published (book, article, journal etc.)?
- III. Year of the publication
- IV. Peer reviewed (if no, why?)
- V. References in the article (who is cited, reliable sources, year of references?)
- VI. Cited in other literature (what type of literature?)
- VII. Overall context of the author and the subject of the paper (the purpose?)

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<sup>&</sup>lt;sup>12</sup> The interviews at the company are presented by showing what country the interview and what area the person are working in. The areas are sales, finance, or operations. The external interviews are presented by showing the role in relation to the company and what area the interviewee is working in. The types of role are for example system integrator, distributor, or expert in a given field.

# 4.3.4 Step four – Innovate a solution idea and develop a problem solving construction

In this step the data collected in step three is analysed to reach the result. This process is iterative. Hence, it is not a clear analyse section nor a clear result section. Three models for analysing data presented by Björklund and Paulsson (2012) are: using analysing models, statistical analysis, or simulation. For this project the collected data is processed with theoretical models for analysis. The analysis result in innovation of a solution idea, which is tested practically and with the new input from the test developed into a problem solving construction that is the final result (Figure 25).

To start with, the empirics linked to the research questions are analysed. To every research question, a draft solution is presented that were tested practically in a workshop. After the workshop the solution ideas were analysed again and resulted in the refined solution, the final

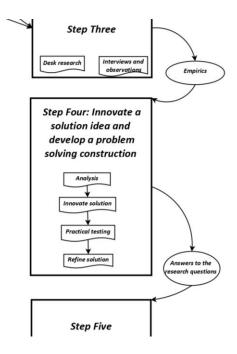


Figure 25: Step four in the research process.

answers, which were input to step five in the research process.

The analysis has been divided into sub analysis for each of the four research questions, presented in section 1.4. To each research question, models and theory create a toolbox for analysing the data. In this analysis correlations and connections in the achieved data was reviled, the use of the models in the toolbox. After all the research questions where worked through they were analysed together on a higher level with all aspects taken into consideration to innovate a problem solving construction.

In order to present an accurate problem solving construction the evaluation has been according to the company's core values and business model, as the final solution must be in line with the company's values in order for the construction to be of use in the future. Also, the company's business model<sup>13</sup> is emphasized as a part of the company's corporate strategy and something that never must be overlooked. Another aspect of the analyses was how to evaluate different parts of the input from step three, what aspects that the company value higher than

<sup>&</sup>lt;sup>13</sup> Described in section 5.1 Company Presentation.

others. For example, if the company has to choose between closeness to customer and low cost, what would the company chose? The evaluation originates from the company's corporate and supply chain strategies in combination with input on directions that the researchers have collected from the interviews with the company employees. Moreover, as a part of the workshop the attendees ranked different aspects for starting import against each other to determine what they considered to be most important, see more in section 4.3.4.3 Workshop method.

## 4.3.4.1 Analysing Models and Theories - Toolbox

Data has been analyzed by using theoretical frameworks and methods. The models were separated according to the four research questions<sup>14</sup>. In this section the analyzing models are presented so that the reader can see which model that is assigned to each research question<sup>15</sup>, divided into a number of action steps. Each step is described defining what models are used, the form on which the outcome from each step is presented, and notes added for the readers to understand (Table 6, Table 7, Table 8, and Table 9). As the result of research question one to three will affect the fourth, it is important to answer these questions before question four.

The first research question (Table 6) should determine whether the Indian market opportunity indicate positive or negative sales potential for the company. Positive sales potential was defined as if the company has the potential to sell more than today, and negative sales potential was defined as if the company will sell less than today.

First, an analysis of the attractiveness of the macro environment was made to understand the potential of the researched market, and then an analysis of the competitor situation<sup>16</sup>. An industry analysis presented as an attractiveness table was made based on four forces from the model Five forces. To innovate a solution, and answer the question, it was determined whether the aspects analyzed indicate positive or negative sales potential for the company in India.

After the answer was determined it was tested practically trough a workshop, using the framework FUNC^3<sup>17</sup>, at the company in Lund. At the workshop the conclusions were presented and discussed with the attendees. The attendees were able to contribute with their

<sup>&</sup>lt;sup>14</sup> Which concern sales and market opportunity, requirements from the market, trade agreements, and distribution.

<sup>&</sup>lt;sup>15</sup> The models are presented in more detail in chapter 3 Theory.

 $<sup>^{16}</sup>$  Using the model Competitor analysis system based on data collected in the model Four levels of competition.

 $<sup>^{17}</sup>$  Stands for Fun, Unique, Novel, Collaborative, Creative and Crazy. The framework is based on the stages called now-wow-how that respectively describes the current situation, the desired situation and alternatives for solution (see section 4.3.4.2)

opinions but also discuss it all together in order to contribute with additional opinions and information to the results. Finally, the solution to research question one was refined, taking into account the input from the workshop.

Table 6: Table describing the analysis method for research question 1.

Q1: Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?				
Step in the project process	Model used	Outcome	Notes	
Step Three	Macro environment	Data for each factor		
	Four levels of competition	Identified competitors	Level 1-3 only	
	Determine the company sales in India today	Million USD	Year 2013	
	Sales potential	Forecasts of the market development	In year 2014-2016	
Step Four – Analysis	Analysis of the microenvironment	Attractiveness table indicating high, medium or low on given factors		
	Competitor analysis system	Products and strategy	Top 5 competitors selected from the ones identified in four levels of competition	
	5 forces focusing on: 1. Buyers' bargaining power 3. Competitive rivalry 4. Threats of substitutes	Attractiveness table showing: 1. High/low 3. Competitor comparison 4. % analog, % digital, % service	Forces number 2 and 5 are delimitated from in this report. Force 3 and 4 will be link to four levels of competition. Analog cameras are seen as substitutes.	
Step Four – Innovate Solution	Determine positive or negative sales potential	Positive or negative sales potential	Year 2014-2016	
Step Four – Practical Testing	Workshop with FUNC <sup>3</sup> framework	Input from Axis Lund		
Step Four – Refine Solution	Reanalyze based on new input from testing	Refined positive or negative sales potential	Years 2014-2016	

The second research question (Table 7) concerns local requests and requirements on the products or services and what adjustments, if any, would be preferable for the company's sales in India. To analyze data concerning this research question, industry regulations were first defined. Secondly, requirements and requests from the customers were determined by using the model Customer information questions (Lehmann & Winer, 2005).

After these steps, the company's offer was compared to the industry regulations, the customers' requirements and requests, and conclusions were drawn regarding how well the company's offer correspond to them. To innovate a solution and answer the question, the above analyses were considered and preferable adjustments to the company offer in India were concluded. After the answer was determined it was tested practically trough a workshop, at the company in Lund and trough an interview in the format of a mini workshop (process as in Q1). The outcome from the workshop was taken into consideration and it was determined whether there are any adjustments that would be preferable for the company's sales in India.

Table 7: Table describing the analysis method for research question 2

Q2: Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?				
Step in the project process	Model used	Outcome	Notes	
Step Three	Determine what products are most frequently sold out of sales data	5 most sold products		
	Extract relevant industry requirements from collected data	Industry requirements		
	Customer information questions	Answers to question 1-6	Question 1-6	
Step Four – Analysis	Compare local requirements and requests with Axis offer	Table: Axis offer's fulfillment of local requirements and requests		
Step Four – Innovate Solution	Conclude what adjustments are preferable	Preferable adjustments to Axis offer in India		
Step Four - Practical testing	Workshop with FUNC <sup>3</sup> framework and mini workshop	Input from Axis Lund	Workshop conducted with relevant employees at Axis in Lund	
Step Four – Re-fine solution	Reanalyze based on new input from testing	Refined preferable adjustments to Axis offer in India		

The third research question (Table 8) concerns trade agreements or other government incentives that the company could benefit from. To begin with, a list of trade agreements and government incentives was created, only applicable agreements and incentives were included. Thereafter, it was analyzed which agreement or incentive are relevant based on the company policies for handling trade agreements or incentives. To innovate a solution, answering the question, the above analyses were considered and it was determined what agreements or incentives the company should start applying to. After the answer was determined it was tested practically trough a workshop, at the company in Lund. Finally, the answer, the solution, to research question three was refined, taking into account the input given as an outcome from the workshop.

Table 8: Table describing the analysis method for research question 3

Q3: Which, if any, trade agreements or other government incentives in India could Axis benefit from?				
Step in the project process	Model used	Outcome	Notes	
Step Three	Extract applicable agreements and incentives from collected data	Applicable trade agreements/incentives		
	Outline Axis policies on how to handle trade agreements and government incentives	Axis policies		
Step Four – analysis	Analyze which agreement/incentive are relevant based on Axis policies	Relevant agreement/incentive	Table	
Step Four - Innovate solution	Determine agreement/incentive Axis should start applying to	Useful agreement/incentives		
Step Four - Practical testing	Workshop with FUNC <sup>3</sup> framework and mini workshop	Input from Axis Lund	Workshop conducted with relevant employees at Axis in Lund	
Step Four – Refine solution	Reanalyze based on new input from testing	Refine useful agreement/incentives		

Finally, the fourth research question (Table 9) was analyzed, based on the conditions on which the company imports products into India. First, possible scenarios were identified to

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<sup>&</sup>lt;sup>18</sup> With applicable it is meant that the agreements and incentives had to be possible to use for the company in regards to what kind of products they were aimed at, or include countries where the company today has some sort of activity.

illustrate how the distribution flow of the company products to India can be designed. To do this, the results from the three initial research questions were taken into account. In order to evaluate the scenarios in an Analytic Hierarchy Process (AHP), relevant criteria for evaluation was identified. Thereafter, the criteria were used for the analysis of each scenario and from this advantages and disadvantages for the company to start import to India were determined. To innovate a solution, answer the question, the above analyses were considered and the most preferable scenario based on given conditions where decided. After the answer was determined it was tested practically trough a workshop, at the company in Lund (see process for Q3). With the outcome from the workshop and the refined solutions for research question one, two and three the answer, the solution, to research question four was refined and the most preferable scenario was recognized.

Table 9: Table describing the analysis method for research question 4

Q4: Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?				
Step in the project process	Model used	Outcome	Notes	
Step Three	Determine what conditions Axis has to adjust to that will be relevant for import activity in India	Conditions for import activities	This conditions will be important for design of the distribution flow	
Step Four – Analysis	Scenario design	Possible scenarios for distribution flow		
	Identify criteria for Analytic hierarchy process (AHP)	Criteria for evaluation		
	Analysis with AHP of each scenario	Table: grading for each scenario based on given criteria		
	Determine advantages and disadvantages	Advantages and disadvantages for Axis to start import to India		
Step Four – Innovate solution	Determine most preferable scenario based on given conditions	Most preferable scenario		
Step Four – Practical testing	Workshop with FUNC <sup>3</sup> framework	Input from Axis Lund	Workshop conducted with relevant employees at Axis in Lund	
Step Four – Refine solution	Reanalyze based on new input from testing	Most preferable scenario		

## 4.3.4.2 Practical testing

As a part of the iterative process of developing the problem solving construction, the initial construction were evaluated and discussed practically at a workshop with key employees at the company in Lund. Hence new knowledge regarding the practical implementation of the construction were achieved, that starts a new turn in the iterative process and a refined solution was developed. Due to time limitations in this project the iterative process had only one turn of practical testing. So the input from the workshop indicated how to rework the alternatives into a refined version of the construction, which was present as the final construction.

The following section presents how the workshop was performed and what was important consider when having the workshop. The method for the workshop was mainly based on the FUNC<sup>3</sup> framework. Developed for commercialization by Ericson and Bergström in 2010<sup>19</sup>. FUNC<sup>3</sup> stands for Fun, Unique, Novel, Collaborative, Creative and Crazy. The framework is based on the stages called now-wow-how that respectively describes the current situation, the desired situation and alternatives for solution (

Figure 26) (Törlind & Ericson, 2013). Between the three stages there are so called transitions where decisions are taken of what situation to explore and what problem should be investigated.

Together with the method complementary material has been developed to help the facilitation of a workshop. The material consists of facilitation cards with different methods for each of the now-wow-how step and the transitions in-between (Törlind & Ericson, 2013). Furthermore, there are also templates for the participant's documentation of the workshop. The facilitator's role is very important for the outcome of the workshop, therefore it is vital to be prepared for the task. McFadzean and Nelson (1998) explain the process of facilitating a workshop in four phases; Pre-Planning Session, Group Session, Post-Session Report, and Post-Session Review (Figure 27). All these phases were worked through by the researchers prior to the workshop in this master's thesis project.

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<sup>&</sup>lt;sup>19</sup> The method, inspired by the concept Future workshop by Kensing and Madsen in 1991, has been developed over time with a base of methods from literature like Roger von Oech's Creative Whack Pack. In 2012 and 2013, Törlind in collaboration with Ericson composed a workbook as an introduction to how the method is facilitated (Törlind & Ericson, 2013).

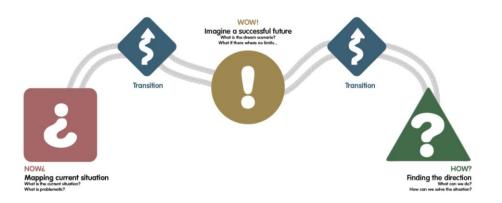


Figure 26: Illustration of the three steps in the framework FUNC<sup>3</sup> and the transitions in-between (Törlind & Ericson, 2013, p. 5).

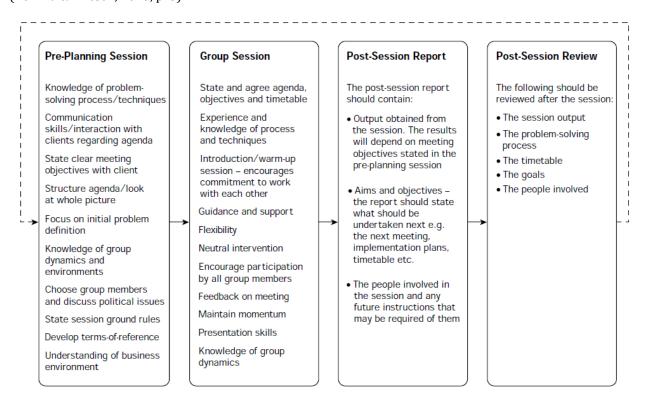


Figure 27: A conceptual model of facilitating a group problem-solving session (McFadzean and Nelson 1998, 75).

## 4.3.4.3 Workshop method

The workshop was prepared through inviting attendees, making a detailed schedule, and preparing the room. A detailed schedule can be seen in Appendix D and material used during the workshop can be seen in Appendix E. The workshop contained six sections;

- 1. Introduction
- 2. Warm-up
- 3. Case: Sales and Market Potential
- 4. Partner Model
- 5. Distribution Design
- 6. Sum-up
- *1, 2. Introduction and warm-up*: The purpose was to explain the basis on which the workshop was held, the rules of the workshop and to get the attendees started with a short brain storming session.
- *3. Case*: Started with presentation of facts (empirics from the project). The attendees were divided into two groups and got three questions to discuss:
  - Present 5 arguments for and 5 arguments against getting more involved in India
  - Which are the biggest risks with the Indian market?
  - Which are the biggest challenges with the Indian market?

The groups discussed, and the case session was concluded with a joint discussion with all attendees to understand the two groups' answers.

- 4. Partner model: Designed to make the attendees discuss what values the partner model contributes with, what pre-conditions that need to be in place for the partner model to work, and which the challenges are with the partner model. First, it was discussed in general for the company, and later it was discussed how it fits with India. The discussions were made initially in two groups, and later the discussions were summarized and developed further together with all attendees.
- 5. Distribution Design: Started with presentation of empirics from the project. Then, the two groups were asked to write down aspects that affect the decision when determining how to distribute products to the Indian market. Then, the groups together clustered the aspects and voted on the aspects they individually found most important to consider when starting an importing activity. After this, the two groups separately designed how they think the Indian market should be supplied with the company's products. The section was ended with presentation of the two groups' distribution design proposals and a discussion on their opinions in this area.

6. Sum-up: The key-points from the workshop were highlighted and the attendees were asked to evaluate the workshop writing down their feedback.

## 4.3.4.4 Research design

The way to get from the purpose to the result in this study, that is the data collection step and the data processing step, is illustrated in Figure 28 below.

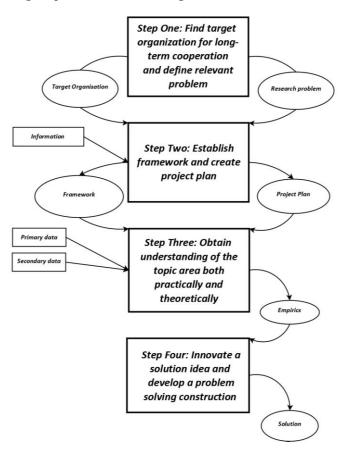


Figure 28: The applied process of getting from the purpose to the result in this project.

# 4.3.5 Step five – Ponder the scope of applicability of the solution

After the finalization of the problem solving construction in step four, the implementation of the construction was discussed by the researchers. The discussion covers how the problem solving construction is expected to work in reality, what factors are key for success and need to be prioritized, and what are the biggest risks involved for implementation of the solution. The fact that an iterative process is followed in the development of the construction indicates that the result has been worked through extensively, and all the aspects from the iterative process are discussed. The output from this step is the contribution the project gives to the

company in the form of answers to the research questions. Step five in the research process is illustrated in Figure 29.

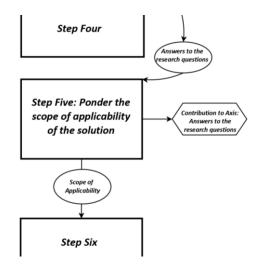


Figure 29: Step five in the research process.

## 4.3.6 Step six – Identify and analyse the theoretical contribution

This step draws more general conclusions on what are the critical aspects to consider when evaluating different alternatives of distribution flows into India. The discussion in this part of the project is linked back to the theoretical framework used, see chapter 4. Gaps in the theory that the result of this project can fill, in order to make an academic contribution. Furthermore, the discussions also covers how the problem solving construction developed in step four could be applicable for other organizations. Figure 30 shows step six in the research process.

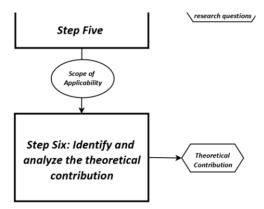


Figure 30: Step six in the research process.

# 4.4 Trustworthiness

In this project, there are some sources of error that needs to be pointed at in order to keep the trustworthiness to the reader. This section describes these potential errors and risks with the method.

## 4.4.1 Prevention of Risks with the Constructive Research Approach

Regarding the Constructive research approach there are a number of risks that should be addressed. The researchers for this project have prevented the risks by taking different actions described below (Table 10).

The Constructive research approach requests a continuous contact between the researcher and the targeted organization in order to be successful. The nature of the approach is built on an intensive and constant co-operation, and failure to maintain this will lead to unproductive results (Lukka 2003). The researchers in this master's thesis have avoided this risk by working at the targeted organisation's office, having an every-day contact and minimized risk of misunderstandings and lost information.

Since the method is based on close co-operation between the parts, the researchers are dependent on the company's interest in order to conduct a relevant project and reveal valid results (Lukka 2003). A risk here is that the company will reduce their interest if they realise that the problem is less relevant than they first thought, or that the problem loses its relevance over time (Lukka 2003). In order to avoid this risk the researchers has assured the research problems importance for the organisation, and also its time frame. For this project the incentives for the research problem mainly originates from the target organisation itself. The significance of the project for the organisation is very high and is also assured to stay relevant over the time frame of this master's thesis.

One big potential risk for the company is that vulnerable information is revealed, that some parts of the organisation is not willing to publish (Lukka 2003). There may also be an anxiety that some business secrets could be revealed to the wrong parties during the project. To avoid this risk there should be a contract written between the parties (Lukka 2003). In this particular project there have been an explicit contract agreed upon, regarding confidential information and what data can be published in the report.

In a project applying the Constructive research approach the researchers have to be careful not to lose the academic attitude (Lukka 2003). The researcher has to stay at least neutral or more preferably critical and keep an overall overview during the whole project (Lukka 2003). This approach should be kept simultaneously with a deep involvement in the activities in the actual project process (Lukka 2003). If this is not done properly the results will be affected and the academic legitimacy will be lost. If the research project should not be successful, there

is a risk that the targeted company will regard the used resources as wasted assets (Lukka 2003). Regarding this, Lukka (2003) argues that most companies are already used to this risk and thereby it is not a problem.

For this master's thesis the researchers have avoided the risk by reminding each other to take a step back and look at the project with neutral eyes. The risk was also avoided by the establishment of critical criteria for all data collected, such as for secondary data (section 4.3.3). The researchers have been analysing the findings with a critical thinking and evaluating counter-arguments for the problem solving construction. Additionally, the supervisor from the university has been of neutral and critical nature during the whole project since the involvement in the process at the company has not been so deep.

Lukka (2003) points the importance for any researcher applying the Constructive research approach to be aware that the methodology is still un-established in many researchers' eyes. This is especially true for the more conservative research societies (Lukka 2003). The actions that need to be taken to avoid the risk of having the projects validity questioned are to stress the adequacy of the methodology and to explicitly display the contribution to the academic world (Lukka 2003). For this project the researchers have accurately chosen the Constructive research approach as methodology since it fits the given research problem well.

Table 10: Summary of risks with the Constructive research approach (Lukka 2003).

Risk	Consequence	Prevention
Loss of continuous contact between the researcher and the targeted organization	Unproductive results	Being placed at the targeted organisation's office
The company will drop their interest	Unproductive results	Researchers need to assure the research problems importance for the organisation
Vulnerable information is reviled	Business secrets could be revealed	Explicit contract agreed upon, regarding confidential information
Lose the academic attitude	The academic legitimacy will be lost	Critical and keep an overall overview during the whole project. the supervisor from the university has been of neutral and critical nature
The targeted company will regard the used resources as wasted assets	-	Most companies are already used to this risk and thereby it is not a problem

Risk	Consequence	Prevention
The methodology is still unestablished in many researchers' eyes	No reliance in the result for some	Stress the adequacy of the methodology and to explicitly display the contribution to the academic world

#### 4.4.2 Sources of Error and Credibility

The study is built on books, reports and articles, and interviews. These two types of sources can cause errors in different manners.

The books and reports and articles used in this master's thesis include academic sources and publications from various authors. Among others, the reports from consultancy firms can be questioned since they are written by actors on the market with the incentive of gaining more projects sold. However, this was seen as a minor issue since the results do not depend only on these sources.

The project has included several interviews, both in Sweden and in India. The interviewees had different positions on their companies, working with different areas. Sometimes, the interviewees answered questions concerning areas out of their expertise that can have caused incorrect answers. However, several interviewees did not give any answers to questions they felt they could not answer properly. It cannot be rejected that some interviewees have told private opinions. Moreover, the interviews had an open structure that makes a risk that the questions have not revealed valuable information. To decrease the risk of affecting the study's result with invalid information even more a higher number of interviews could have been held, resulting in a larger control and similarity between interviewees. The number of interviews corresponds to the amount of time that was available for the project.

The Constructive research approach was used to structure the work, although the method has not been applicable on all parts of this project. In step four<sup>20</sup> the solution ideas were tested, although differently for each question and the term "tested" can be discussed and might not be the optimal word but the activity was valuable even if the name of it can be questioned. Improvements of the method could have enhanced the credibility of the project, experience the researchers bring from the project

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<sup>&</sup>lt;sup>20</sup> Innovate a solution idea and develop a problem solving construction.

# 5 EMPIRICS

In this chapter, the collected empirical data from the desk research and the field study is presented. The purpose is to give the reader an understanding of the five research areas in the project. The chapter follows the structure of the research areas the Pyramid model starting with a presentation of the targeted company Axis.

# 5.1 Company Presentation

This section describes the company Axis's cooperate strategy, values, business model, and products as it will influence this project. The section also covers Axis in India and the activities there.

#### 5.1.1 Company Information

Axis was founded by Mikael Karlsson, Martin Gren, and Keith Bloodworth in 1984. The company has 1 627 employees with offices in more than 40 countries as of December 31, 2013 (Axis Communications AB, 2014). The partners are geographically even more spread and the 65 000 partners are found in 179 different countries (Axis Communications AB, 2014). Today Axis is covering a big part of the global market. The sale is divided as 14 % in Asia, 41 % in EMEA (Europe, Middle East and Africa) and 45 % in America (numbers by Quarter 4 2013). Total sales from year-end result 2013 were 4.7 billion SEK (Axis Communications AB, 2014a). Figure 31 illustrates Axis's products and markets on a timeline.

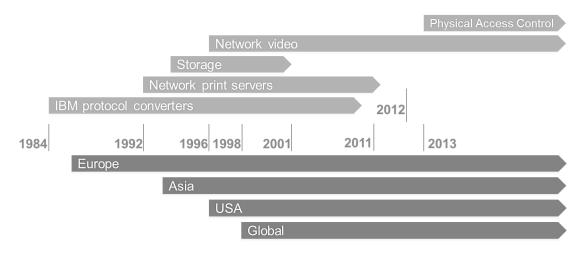


Figure 31: Axis history on a time-line showing products and markets (Axis Communications AB, 2014)

## 5.1.2 CORPORATE STRATEGY

Axis's overall strategy is to straightening the position as market leader on the network video market. The strategy is divided into three parts; *global market leadership* (expansion), *long-term loyal partnerships* and *smart, innovative products* and solutions (Table 11) (Axis Communications AB, 2014).

Continued global expansion focuses on growing in the US and on the emerging markets. The goal for the emerging markets



is that these markets should grow three times the mature markets every year, mainly organically. To be successful in the strategy, it is important to continue the recruitment of skilled employees globally. Axis will also focus more on the segment of small businesses. The sustainability work is central for the global expansion. (Axis Communications AB, 2014a) (Axis Communications AB, 2014)

Regarding partnerships, Axis should have an open communication and build trust with all partners. The market should be driven jointly by Axis and new partners. Axis will continue to build a strong network of partners to spread the knowledge of network video. The shift from analog to network video should be driven by Axis, e.g. through training. (Axis Communications AB, 2014; Axis Communications AB, 2014a)

The product strategy is to maintain a high release rate off new products and solutions with high quality and the customer demand should be handled open minded. Axis intends to be innovative in the security area and include software applications to increase the company's offer. The investments in research and development should be focused and support the company's leading position. Manufacturing should be done in collaboration with specialised partners that follow Axis Code of Conduct. (Axis Communications AB, 2014)

Table 11: Axis Corporate strategy divided into three parts

Corporate Strategy			
Global market leadership	Long-term loyal partnerships	Smart, innovative products & solutions	
Global expansion should mainly be trough organically growth	Sharing expertise	Smart & innovative	
Serving global partners	Creating best-of-breed solutions	Best quality products & total solutions	
Same strategy & services	Driving the market together	Exploring new areas in physical security	
From enterprise to small systems			

Axis Vision and Mission includes keywords as innovation, safety and working together with central stakeholders (Axis Communications AB, 2014).

Regarding the Asian market Axis see big potential due to its rapid growth and big infrastructure investments that is seen in the Asian markets. The growth target that Axis have set for the emerging markets are that by 2020 Axis should have 40 % of revenue coming from emerging markets (The Economic Times, 2013).

# 5.1.3 Axis Responsibility Areas and Values

Axis is taking responsibility over their work by focusing on three areas. The first area is *business conduct* where they intend to do business in a responsible, transparent, trustworthy and consistent way. The second area is *social*, where Axis strives to make a positive contribution to all stakeholders and employees. The third area is the *Environment* where Axis wants to minimize the impact on the environment and protect all ecosystems. There is also an anti-corruption policy stating zero tolerance against all types of corruption. (Axis Communications AB, 2014)

Axis has three core values which are meant to permeate all its activities. *Act as One* encourage the employees to help and respect each other and have fun. Moreover, responsibility and cooperation for the benefits of the customers are important values. The second core value, *Think Big*, inspires the employees to be professional, make decisions and prioritize, and dare to win. The final core value is *Always Open*. Pointing at the importance of being available to the customers, listen and respond. (Axis Communications AB, 2014c).

#### 5.1.4 Business Model

Axis has an indirect business model (Figure 32) where they supply the market with their products. The products are distributed

to the end users in three steps.

Hence, Axis has built a network of partners including distributors, resellers, and system integrators globally. This network of partners is organized through a partner program. The organizations involved in the program have different roles depending on how much involvement they have with Axis. Since the partner

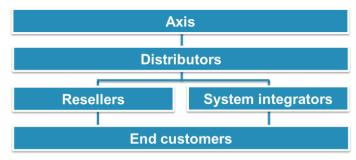


Figure 32: Illustration of Axis business model (Axis Communications AB, 2014)

model is the base for Axis business all activities are strictly handled according to the model (Axis Communications AB, 2014).

## 5.1.4.1 Customer segmentation

Axis has segmented their customers in nine different segments: Bank and finance, City surveillance, Critical infrastructure, Government, Education Healthcare, Industrial, Retail, and Transportation. For each segment Axis is focusing on delivering solutions that fit their needs. (Axis Communications AB, 2014)

## 5.1.5 PRODUCTS

Axis has had various products over time, but today network video cameras are in focus. In the segment of network cameras Axis has cameras in the following categories (Figure 33): fixed cameras, fixed domes, pantilt-zoom (PTZ) cameras, covert cameras, thermal cameras, panoramic cameras, HD and megapixel cameras, and outdoor cameras. (Axis Communications AB, 2014a)

# 5.1.6 Axis India

Axis has a wholly owned subsidiary in India, *Axis Video Systems India Pvt. Ltd.*, here called Axis India. Axis opened the first sales office in year 2007 in Bangalore, but the Indian activities started in 2006



Figure 33: Pictures of the categories of cameras in Axis network camera range (Axis Communications AB, 2014e)

(Interview 1). The initial focus where on the transportation and retail sector<sup>21</sup>.

Axis India has 17 employees at different locations in India. The head office in Bangalore is complemented with sales offices in Mumbai and in New Delhi (Axis Communications AB, 2014d). The sales offices have two employees each, and there are 13 employees in Bangalore. Axis India has approximately an 8 % share of the network video market in India, which is the same as IP surveillance products market (Interview 43).

<sup>&</sup>lt;sup>21</sup> Due to business confidentiality some sales data has been excluded from the report like turn over and market share.

#### 5.1.6.1 Sales in India

The Indian subsidiary is not involved in the financial transaction when products are sold to the Indian distributors (Interview 1). The actual sale is made in Singapore between Axis subsidiary in Singapore and the Indian distributor (Interview 42). The Indian office is handling the marketing; meeting end users; developing relations with Axis's partners; and educating them. The Indian distributors are picking up the products from Singapore and transporting them in to the Indian market, handles the import, pay the import duty, the transportation costs, and the cost of insurance (Interview 1). Axis sales statistics is based on where the end user of the product is located geographically (Interview 43).

Indian sale is 70% project based and 30 % is run-rate sales (Interview 1, 2). Run-rate means that the sale is done according to a given price list and there is no special project price. Axis specifies the recommended end user prices in the price list, which are the manufacturer's suggested retail price (MSRP). The idea with run-rate is that the distributors should be handling the sale without Axis's involvement. Although, 30 % is statistically run-rate on the Indian market only 5-6 % of the sale is handled by distributors alone without Axis India's involvement (Interview 1, 2). The most common projects for Axis India in terms of sales volume is the ones in the range of USD 30 000 – 40 000 (Interview 43). The projects in the range below USD 30 0000 is still very small for Axis India although these projects are a big market segment in India.

#### 5.1.6.2 Axis India's strategy and goals

Axis India wants to have around 50/50 of run-rate and project based sales (Interview 1). One of the strategies to increase the sales is to promote the top five selling cameras to all the partners so that they will recommend those cameras to the end users.

# 5.1.6.3 End user segments

Today Axis India is working with the end users in the following segments:

- Commercial space (IT companies, offices, government buildings etc.)
- Hospitality (hotels etc.)
- Critical infrastructure (seaports, air ports etc.)
- Oil and gas
- City surveillance
- Manufacturing (Interview 1)
- To a low extent also retail (Interview 1)

However, Axis India has not fully identified clear segments that they are working towards (Interview 43). With the government projects there are an issue of corruption, so one must be careful to not get involved in corruption (Interview 2). There is one key indicator showing

that government projects are not involving corruption and that is when one of the big global consultancy firms, like PwC, EY, or McKinsey is handling the project (Interview 43).

Several interviewees stated that Axis is a lot more expensive compared to the competitors (Interview 2, 7, 22, 31, 33, 35, 37, 38). However, it is not always clear what the offers from the different companies include. This makes it difficult to quantify the differences in price, and a price comparison is likely to give a misleading impression (Interview 20). Regarding warranty, some interviewees stated that Axis offers a shorter lead time compared to its competitors (Interview 2, 22, 35). But, this depends on which products that are compared (Interview 19, 20).

## 5.1.6.4 The partner model's application in India

The partner model is not implemented on the Indian market to the same extent as on the mature markets, since most of the business is based on project sales (Interview 41). Axis India's partners are three distributors and a number of system integrators and resellers (Interview 1). According to the partner model there are different prices for different types of partners (Interview 43). But prices on Axis products in India have variations between the distributors leading to that Axis cannot create and communicate a pricelist with recommended prices to the market (Interview 43). A price list would make it easier for the end users to understand the prices of Axis India's products and thereby the value of the whole offer (Interview 41). By implementing a recommended price list Axis can establish a price structure on the market (Interview 41).

## 5.1.6.4.1 Back-end rebate

Axis uses a segmented pricing model, with back-end rebates towards the different type of partners, in the partner model (Interview 41). A back-end rebate means that the customer will get the rebate after the actual sale is done. A run-rate sale from the distributor will have a special back-end rebate depending on what role that specific system integrator has in the model (Interview 41). Since the back-end rebate is paid after the sale this is affected by the duty paid for the products when taking them into India.

For example if the distributor is paying USD 100 for a product, they know about USD 20 in rebate (Interview 1). When the distributor imports into India and they pay the import duty on USD 100, which is the price they bought the product for. They pay approximately 28 % duty on USD 100 that is USD 28 (Interview 1). If they would have got the rebate up front they would have paid duty on 80 USD, which would have landed on 22,4 USD. The duty paid means that the margin will be lower for some of the players in the distribution chain (Interview 1).

#### 5.1.6.4.2 Distributors role in the model

According to Axis India, the distributor's role in the partner model for India is that they add marketing activities like product knowledge to the market, demonstrations of products, and pre-sales calls (Interview 1). The distributors keep stock of approximately USD 0,1-0,125 million per year (Interview 43). There is a large portion of the end users that cannot purchase products from stock in India<sup>22</sup> which affects the volume kept in stock (Interview 43). Additionally, 70 % of the sales are project based and therefore harder to forecast (Interview 43).

## 5.1.6.4.3 System Integrators

Axis India believes that the system integrators' attitude towards the partner model is negative (Interview 1). The partners feel their margins are disappearing due to the many levels of players in the model. Many partners can't see the value added by the distributors and they think Axis India can be more profitable if they bill directly to them, the system integrators or resellers (Interview 1). Many partners would prefer doing business directly with Axis India since they feel that Axis India is more reliable than the distributors and more willing to make a good deal for both parties when they sell their own products (Interview 1). According to Axis India they are the only one (or one of very few) among their competitors having this type of distribution model (Interview 1).

## 5.1.6.4.4 Axis India's view

Axis India finds the large distance between Axis India and the end users being a drawback of the partner model making it hard for Axis India to work close with the end users. Therefore, the partners and the distributors need to handle this contact (Interview 43).

# 5.1.6.5 Axis's offer in India

Axis's offer in India is expertise, good technology, world leading quality, store of transition data, and support for failures (Interview 1). The fact that Axis is world leading in digital video surveillance is adding value to the brand and the offer (Interview 1). Axis has a position in the high end segment focusing on customers that value quality (Interview 1). This means that Axis's offer is in the high priced segment (Interview 43).

The top five most sold products stood for 40 % of the total sale during year 2013 (Interview 43). The top five models sold during 2013 are; P3354 12mm, M3004-V, P3353 12mm, M3203, and M1013. The unit price for these products is in the range between USD 120 and 420 (Interview 43).

<sup>&</sup>lt;sup>22</sup> Duty benefit customers, se 5.5.3 Two types of customers gives two distribution flows.

#### 5.1.6.6 Distribution

The distribution of Axis's products to the Indian market is initially described in section 1.2 Axis's Current Supply Chain. A more extensive explanation of the distribution flow can be found in section 5.5 Distribution Flow.

## 5.1.6.7 Axis India's current import

Axis India has an Importer/exporter license, and is thereby certified by the government authority to have import and export activities in India. Today, Axis India is importing cameras related to warranty matters in the RMA process<sup>23</sup> (Interview 5). During year 2013 Axis India have imported a small number of units of two types (HS codes 85258090 and 85291099) for the purpose of RMA (Interview 5). The units are sent from Sweden directly to India customs and then imported by Axis India (Interview 5).

For Axis India is export activities connected to the RMA process, around 0,1 % of the faulty cameras are sent back to Sweden or Singapore for repair. The reason for this low share is the complex and time consuming process of exporting products out of India for repair and then reimporting them (Interview 5).

## 5.1.6.8 Challenges for Axis India

A challenge for Axis India is that the distributors today report the cost of import, freight and insurance (Interview 1). With three different distributors there are three different costs presented (Interview 1). The price to the end user will be affected by all costs (Figure 34) involved for the transportation and import; meaning that this price will vary depending on which distributor has imported the products. The distributors also claim the same duty cost for all the products, cameras, accessories, encoders, software etc. (Interview 1).

Another challenge is the currency fluctuation of Indian rupee towards the American dollar. Since the rate has been

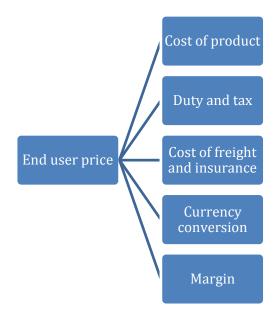


Figure 34: The blocks building up the end user price on the Indian market.

<sup>&</sup>lt;sup>23</sup> RMA stands for *Return Materials Authorization*, and is the process of getting a functioning unit to replace a faulty unit for the customer (Axis Communications AB, 2014f). The functional unit can be either the faulty unit that has been repaired or a replacing unit.

instable for a period of time it has been very hard for Axis to have a pricelist towards the distributors for a longer period of time (Interview 1). The prices of the products can then change during a bid process, which can be either positive or negative for Axis. If a price is given in a quotation in April the value of the deal can be totally different when it closes in August and currency fluctuations have increased the price from INR 50 to 57 (Indian Rupees) per USD (Interview 1). The problem relates to Axis is billing in USD, while companies billing in Indian Rupees not have this problem (Interview 1).

The two challenges (different distributor prices and a fluctuation currency) make it hard for Axis to present a uniform price list (Interview 2). Furthermore, the Maximum retail price labels (MRP-labels) that has to be placed on all products for retail sale in India, will have different value depending on which of the distributors that did put the label on the packages of the products<sup>24</sup>. Presenting a product with three different prices will affect the trustworthiness of the manufacturer and their brand name (Interview 1).

# 5.2 India

This section describes India's macro environment in sections of demography, culture, economy and politics.

## 5.2.1 DEMOGRAPHY

India has the world's second largest population; 1.237 billion people in 2012 (The World Bank, 2014). The income level among the population is lower middle. Even though less people live in poverty, there are still many challenges to handle regarding the standard of living. According to The



World Bank (2014), the poverty head count was 21.9% of the population in 2012, counted at the national poverty line, which is an improvement compared to 45.3% in 1994 (The World Bank, 2014). The human development index, HDI, is an aggregation of values of expected lifetime, level of education, and GDP in the country, and it is a figure between 0 and 1. The HDI in India is 0.619, which gives India place 128 out of 177 countries (Kommerskollegium, 2009). Countries with an HDI above 0.758 are considered having a high human development, whereas countries below 0.466 have a low human development. Sweden's HDI is 0.916 (Nationalencyklopedin, 2014). India has large inequalities among the citizens, where many people are rich and many others are very poor (Kommerskollegium, 2009).

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<sup>&</sup>lt;sup>24</sup> See section 5.4.1.6 Packaging and labeling.

## 5.2.2 Culture and Business Climate

India is a country with a wide culture and more than 200 languages spoken. The national language and primary tongue for approximately one third of the people is Hindi. For national, political, and commercial purposes, English is used (Bhatikar, 2012).

In 2013, India was on place 94 on Transparency International's list of most corrupted countries. On a scale from 0 to 100, where 0 represents a high degree of corruption and 100 a low degree of corruption, India got 36. Denmark and New Zeeland had the highest value, 91, and Sweden is number 3 on the list with score 89 (Transparency International, 2013). According to a study by Ernst & Young, 84% of Indian companies believe bribes or facilitation payments are being made in order to do business (Ernst & Young, 2012). In addition, 30% of Indian companies and 54% of individuals were reported paying bribes to officials in order to execute government services (Ernst & Young, 2012). The risk of corruption is significant in India. Ernst & Young (2012) emphasizes some high risk areas where companies should pay careful attention (Table 12). There can be different consequences of breaking the law through involving bribery. These can be related to loss of trust or some kind of punishment. Ernst & Young (2012) gives the following examples:

- Reduced reputation and trust
- Loss of business relationship
- Fall in stock prices/values
- Prison sentences for management
- Expensive monitoring programs
- Compensation claims
- Excluded from public tenders/markets
- Cancellation of business contracts
- Loss of illegally obtained licenses/rights

Table 12: High risk areas of corruption (Ernst & Young, 2012).

High risk area of corruption	Comments
Custom and import	Many companies expect they are obliged to give gifts in order to
	obtain import licenses.
	It is common with requests for "extra" payments in customs
	clearance.
Public procurements/sale to	It is common with bribes to win public contracts.
government entity	Employees at public companies can offer your employees a
	contract if they get a kickback.
	There is a risk of being involved in cartels.
	Some state entities have a fraud culture.
Permits, licenses and inspections	Public servants with a lot of power demand payments to impact
	the decisions.

High risk area of corruption	Comments	
	Inspectors demand payments to issue approval or to make the	
	process faster.	
Third parties relationship	Representation and gifts are highly prevalent.	
	Some companies' business model is supposed to support influence	
	of decisions and to hide to whom and why payments are made.	
Real estate (purchasing and	It is complicated to purchase and register property, and to get	
build)	construction permits. This opens up for bribery.	

The risk of getting involved in fraud and corruption should be mitigated, Ernst & Young (2012) advice companies to understand the regulations that are applied and the consequences if the regulations are not followed; make sure they have access to experts in the local regulations; secure the top management understand India's regional business culture and challenges as India's regions are very different; identify and analyze the risk areas of the specific company's activities. Finally, adapt anti-bribery policies, which have to be communicated and understood by everyone within the company. Also, the anti-bribery policies should be communicated to intermediaries and agents (Ernst & Young, 2012).

The criminal activities in India are increasing, and the wish for using video recordings in judicial procedures becomes more and more important. The image quality has to be at a certain level though, and this forces the development towards installing video surveillance cameras with acceptable quality (6W Research, 2013) (6W Research, 2012).

The Swedish Chamber of Commerce in India (2013) points out the main challenges for Swedish companies in India. First, it is difficult to find skilled and loyal workforce. Secondly, the regulatory system is complicated when it comes to employment rules, making it complicated for the company to grow. Finally, the price competition in India is considered severe; the Indian people are very price sensitive (Swedish Chamber of Commerce India, 2012a).

Even though there are challenges, Embassy of Sweden states that Swedish companies in India rank India as a favorable country to conduct business in. Swedish companies have rated India at 7.5 on a scale from 0 to 10, where 10 indicates a very favorably country to conduct business in. Hence, the attitude towards the business climate is positive. Moreover, 96 % of the companies are positive to increase their activity in India. Only 1 % of them are gradually reducing the activity in India (Embassy of Sweden, 2011). The quality of the English language is seen as a main asset and the education level is considered advantageous for India (Embassy of Sweden, 2011). Difficulties are lack of proper infrastructure, corruption, and bribery. The economic growth is negatively affected of poor water and garbage management, poor supply of electricity, poor air quality and poor water supply (Embassy of Sweden, 2011). However,

the companies in the report emphasize that India is an exciting market to act on and the overall satisfaction is high (Embassy of Sweden, 2011).

# **5.2.3** *ECONOMY*

India is one of the world's fastest growing countries and it is a big player on the global market. The GDP in 2012 was 1.842 trillion USD (Figure 35) (The World Bank, 2014). The Indian rupee, INR, has fluctuated quite a lot compared to the USD (Figure 36), e.g. in comparison to fluctuation between SEK/USD.

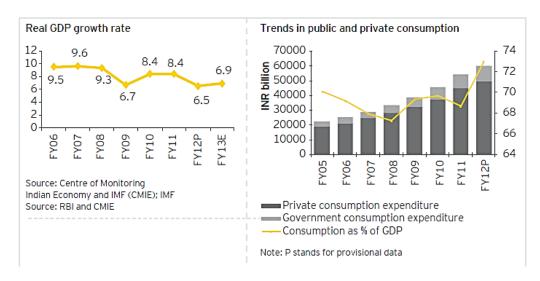


Figure 35: India's GDP (Ernst & Young, 2012).

India imports and exports a large amount of goods and services every year (Figure 37). India has a trade deficit in goods, but a trade surplus of services (Table 13). The trade of goods is dominated by produced goods, and the significant deficit can mainly be explained by the large demand for oil and the increased prices for oil (Kommerskollegium, 2009). Exported products are mainly goods with labor intensive production. The trade surplus in services depends a lot on the export of IT and business services (Kommerskollegium, 2009). Many

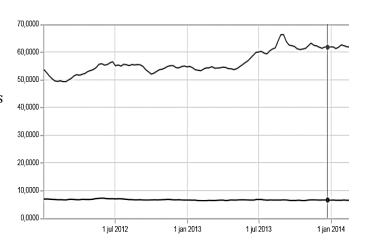


Figure 36: Currency rate comparison, INR/USD (upper graph) and SEK/USD (lower graph) (Oanda, 2014).

foreign companies purchases services from India since there is educated English speaking work force available at a competitive price (Kommerskollegium, 2009).

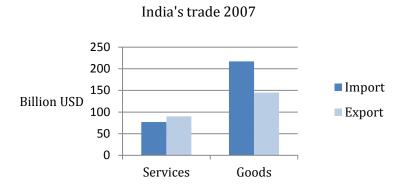


Figure 37: India's trade in 2007 (Kommerskollegium, 2009).

Table 13: India's import and export of goods and services in 2007 compared to other countries (Kommerskollegium, 2009).

	Goods/services	Percentage of world's total	Ranking among other countries
Import	Goods	1.5	18
	Services	2.5	13
Export	Goods	1.0	26
	Services	2.7	9

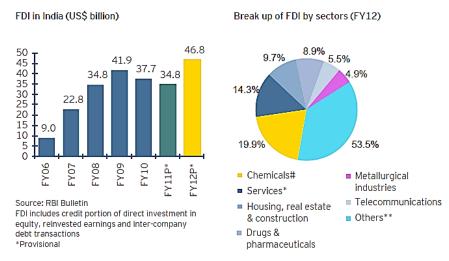


Figure 38: FDI in India and break up by sectors (Ernst & Young, 2012).

India accounts for 0.3-0.4% of the world's total foreign direct investments, FDI. This is a low figure since India is a very large country. Completed investments are mainly done within the IT sector, telecommunication, business services, and financial service sector (Kommerskollegium, 2009). Figure 38 illustrates the FDI in India the last years.

## 5.2.4 POLITICS

India has been a member of World Trade Organization, WTO, since it was founded in 1995 (Kommerskollegium, 2009). The trade policy is getting more and more liberal, but on average the tariffs are high in India. The applied tariff rate is on average 14.5%, but the bound tariff rate is on average 50.2% (Kommerskollegium, 2009). This difference in applied and bound tariff rate creates uncertainty whether the tariffs will be increased or not. This is a political issue and gives policymakers the possibility of interfere and it has a bad impact on the predictability of the politics in India (Kommerskollegium, 2009). A country that has bounded the tariffs at a certain level in a WTO negotiation is not allowed to increase the tariffs above the agreed level. However, the country is allowed to have lower tariffs than agreed upon (National Board of Trade, 2014).

India is ranked far down the list on the World Bank's list of Ease of doing business, see section 5.4.4 Trade Barriers. For example, the complex employment rules and government interference are considered to affect the economic development negatively, as the bureaucracy makes it complicated to get necessary permissions and licenses (Kommerskollegium, 2009). It takes time to conduct import and export, which also depends on the shortcomings in the infrastructure (Kommerskollegium, 2009). Interviews stated that the majority of political decisions are postponed until after the election to be held in India during 2014 (Interview 22, 33).

#### 5.2.5 TECHNOLOGY

The trends of technology in the video surveillance industry indicates that IP is becoming more popular, and especially end customers within retail, residential, transportation, banking and financial, manufacturing and industry, and government request IP products (6W Research, 2012; 6W Research, 2013). In addition, the interest in cloud based video surveillance is growing (6W Research, 2013). Software based solutions, open source and fully integrated systems are becoming more popular on the Indian market. Functions that affect customers to purchase IP instead of analogue video surveillance products are video analytics, digital video, sensor-based detection, and background screening (Kuick Research, 2013). Additionally, a major trend that has been identified in Q4 2013 is the growth of cameras with the global standard interface ONVIF (6Wresearch, 2014), which is an open industry forum driven as a non-profit organization (ONVIF, 2014). From the previous quarter, Q3, the growth for the ONVIF cameras where 49 % indicating that the Indian customers are now taking on standard

cameras (6Wresearch, 2014). In Q4 2013, it was also acknowledged that video analytics had an increase of 31 % from the previous quarter (6Wresearch, 2014).

According to an analysis in 2012 of some sectors, for example government, financial, and educational on the Indian Closed-circuit television (CCTV) market, the box-shaped cameras hold the majority of the market both in volume and in value (RNCOS E-Services Private Limited , 2012). This study from 2012 also shows that the demand for electronic security systems will grow faster in the residential and retail sector than in other end user segments (RNCOS E-Services Private Limited , 2012).

#### 5.2.6 Natural

The video surveillance industry is affected by the government's intention to facilitate the IT infrastructure, and cloud-based solutions (Frost & Sullivan, 2013). Since the terrorist attack in Mumbai in 2008, there have been several projects to increase security in form of video surveillance in public transportation, financial corporations, educational institutions, and industry and commercial establishments (6W Research, 2013). The government is one of the biggest spenders on video surveillance products in India, and this intervention affects the market for video surveillance products in India to a large extent (Interview 2).

# 5.3 SALES AND MARKET POTENTIAL

This part of the thesis describes data regarding the sales and market potential in sections of competitors, customers and the Indian video surveillance market. When the sales and market potential is studied, it is of interest to understand its context by means of the players on the market.



#### 5.3.1 Competitors

On the Indian video surveillance market, a large number of companies are active and it is common that new companies enter the market (Interview 1). According 6W Research (2013), the barriers to entry the Indian video surveillance market are low for overseas companies, which also indicate that new companies become active. There are actors selling network video products and analogue video products. Several companies offer both network video and analogue video. Since a large number of companies offer video surveillance products, not all can be outlined in this master's thesis. Five big players on the market that several of the

interviewees talked about are included (Figure 39). Axis's competitors can be divided into three levels<sup>25</sup>.

The closest competitors are level one offered products equal to Axis; network video surveillance cameras with high quality. Here are the competitors Bosch, Pelco, Honeywell, and Sony (Interview 2, 3, 7). These companies offer products with good quality, and many features. Also, they give their customers a low price and are known as a good brand. Lately, these companies have been aggressive in their pricing offering the customers low prices which Axis India find difficult to respond to (Interview 2, 7). Several interviewees have stated that Axis is a lot more expensive compared to the competitors (Interview 2, 7, 22, 31, 33, 35, 37, 38). However, it is not always clear what the offers from the different companies include making it difficult to quantify the differences in price (Interview 20).

The second level of competition contains companies offering similar products; analogue video surveillance cameras or network video surveillance cameras with low quality. The network video cameras have better quality and better performance of the video compared to the analogue products (Interview 40). Even though they are considered to have lower quality than Axis's products, the quality is seen as relatively high. The price is lower compared to the price on Axis's products (interview: 2, 4, 26, 35). Axis has the best quality on the market (Interview 35). Here are the company Hikvision that focuses almost only on price. The quality of their products is limited and it is poor compared to Axis's products. Production is located to China, which is seen as a reason to their very low price (Interview 6, 7, 35, 38). However, Hikvision is not seen as a direct competitor since its price and quality strategy (Interview 2, 4, 35).

Finally, the third level of competition contains substitutes to Axis's products that can replace video surveillance cameras. Hera competitors are human guards. Interviewee 4 stated that video surveillance cameras are sometimes seen as a compliment to guards, and sometimes seen as a substitute. However, guards increase peoples' feel of security, which is an argument for using guards instead of cameras. Cameras can be used in places where people not are efficient though, so the selection between guards and cameras is based on the situation (Interview 4).

Some companies are writing a lot of features in their product specifications, even though the quality of some features may be so poor that it is almost useless (Interview 35). This can be a questionable approach, but it is accepted by the customers<sup>26</sup>. Regarding warranty, some interviewees stated that Axis offers a shorter lead time compared to its competitors

 $<sup>^{25}</sup>$  Re-call Lehmann and Winer's (2005) model Four levels of competition

<sup>&</sup>lt;sup>26</sup> see more in section 5.3.2 Customers

(Interview 2, 22, 35). But, this depends on which products that are compared (Interview 19, 20).

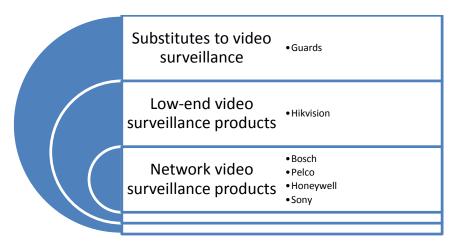


Figure 39: Competitors illustrated in three levels.

The research company 6W Research (2013) stated in a report that CP-plus, Dahua Security, and Maximus CCTV are big players on the market. None of these were mentioned by any of the interviewees. The top three players together hold 53% of the market, where CP-plus is the market leader <sup>27</sup> (6W Research, 2013). The quarterly sales for the market share and growth of the major players on the Indian video surveillance market (Table 14) shows big variation over different quarters for the players.

Table 14: Historic data for the players on the India Video Surveillance Camera market. #Y indicates the position on the market regarding market share. QX indicates the quarter of year 2013 (6W Research, 2013; 6Wresearch, 2013 a; 6Wresearch, 2014).

QX 2013	CP-plus	Hikvision	Maxim us CCTV	Dahua Securit y	Bosch
Q1					
Q2	40 % growth to 27 % share - #1	decline of 59 % - #2	#3		
Q3	24 % share - #1	53 % market share with Bosch and Dahua		Growth of 120 %	53 % market share with Hikvision and Dahua
Q4	37 % market share together with Hikvision - #2	40 % growth - #1			

<sup>&</sup>lt;sup>27</sup> W6 Research is not stating the two other companies.

#### 5.3.2 Customers

The video surveillance camera is not always an easy product to purchase. Therefore, many end users hire a consultant who helps them specify detailed features and quality wanted. To a large extent, these specifications will depend on what products the consultant knows and which camera surveillance companies he/she works with. This makes it important to keep contact with consultants so that the specifications they write fit Axis's products and offer, but also understand what the end users want and what they are willing to pay for (Interview 2).

The following sections are divided according to the model of customer information<sup>28</sup>:

Question 1: Who buys and uses the product

Question 2: What customers buy and how they use it

Question 3: Where customers buy

Question 4: When customers buy

Question 5: How customers choose.

Question 6: Why they prefer a product

Question 7: How they respond to marketing programs

## Question 1: Who buys and uses the product

According to Axis partner model, the distributors are buying the products from Axis. But it is the end users, the system integrators' customers, who use the products. The two intermediaries and the end user acts differently due to different interests. The intermediaries want to earn money, and the end user wants a product. Axis needs to get loyal partners that make an effort in selling Axis's products. To buy Axis's products, the end user often needs to be educated in order to understand the quality of Axis's products (Interview 1, 2, 7).

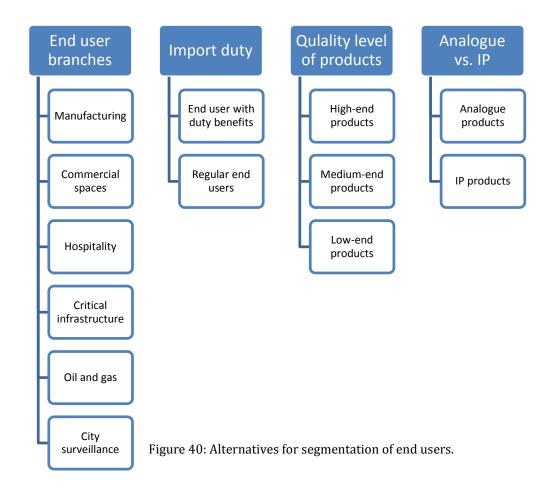
Axis India has sales employees in north, west, and south India, focusing on sales in these regions. Axis focuses on customers who want premium products willing to pay for the knowledge, expertise and world-leading technology Axis offers (Interview 1). End users buying Axis's products are mainly global companies with high requirements on quality, which sometimes have policies of purchasing products with a high level of quality (Interview 1, 2).

The end users can be segmented in several ways in India for this market (Figure 40). In the 1<sup>st</sup> segmentation, end user branches, Axis sells products to commercial spaces (offices), hospitality, critical infrastructure (seaports, airports), oil and gas, city surveillance, and manufacturing. Only a little is sold to the retail sector (Interview 1). The city surveillance

<sup>&</sup>lt;sup>28</sup> See section 3.3.3.1.1 Customer Information. The model aims to help understand what the end users want and what they are willing to pay for and how this affects the market potential.

segment includes transportation and is a rapidly growing segment. One reason to this is the government investing large amount of money to increase the safety in the country (Interview 38).

The 2<sup>nd</sup> segmentation illustrates two types of end users; end users with reduction/elimination of import duty, and end users who do not have any reduction/elimination of import duty (Interview 2). The segment that could import products at a lower cost, called duty benefit end users, accounts for approximately 50% of Axis India's sales (Interview 2). The duty benefit is based on an incentive from the Indian government<sup>29</sup>. To gain this benefit, the end user itself has to be the importer of the products. Interview 2 think this segment is decreasing rather than increasing since the Indian government does not have any incentive to let too many end users import with reduced/eliminated import duty.



<sup>&</sup>lt;sup>29</sup> Read more in section 5.4.6 Government Incentives.

The 3<sup>rd</sup> segmentation of end users is based on their required level of quality. The low-end segment is very large in India, and it is growing a lot. The high-end segment is small (Interview 1).

The 4<sup>th</sup> segment divides end users who prefer analogue products from those wanting digital video surveillance products, IP. The segment of analogue products is a lot larger than the IP segment<sup>30</sup>. End users who purchase analogue products are price driven and buy mainly products produced in China. The IP products are bought by end users more interested in features and their quality. These end users purchase to a large extent products by Axis, Honeywell, Pelco, Sony, Bosch, and Panasonic (ADI).

#### Question 2: What customers buy and how they use it

The Indian government offers incentives to a number of companies, which affects the end users' purchasing decision. That affects Axis in terms of how the end users want to buy and how they use the product. Companies that are offered a reduction in import duty because they are located in special economic zones are only allowed to use the products within these zones, and are not allowed to use the products outside these zones.

## **Question 3: Where customers buy**

Axis's customers, the distributors, buy the products in Singapore. Then system integrators buy them and sell to end users. Approximately 50% of the end users purchase the products within India (Interview 2). Due to the duty benefit incentive approximately 50% of the end users import the products on their own (Interview 2, 22, 23, 26-28, 31-33, 35, 36, 37, 38). Today, this does not impact Axis since Axis applies ExWorks Singapore.

## Question 4: When customers buy

There is seasonality in the purchasing pattern from the end users. January-March is the busiest part of the year with a lot of sale (Interview 1). During April-June, companies work with financial planning, and the sale is relatively low. From July to October relatively much sale is done. In November and December, the Indian people celebrates several festivals, meet their family etc., which result in postponement of purchase decisions and actual singing of agreements. Therefore, the sale in this period is low.

<sup>&</sup>lt;sup>30</sup> Outlined more in section The Indian Video Surveillance Camera Market.

## Question 5: How customers choose

The Indian end users are price sensitive (Interview 1, 7, 25, 26, 33, 35-38). However, for end users it is also important that it is a well-known brand with good reputation (Interview 38, 33). Quality is important, but even more important as an order qualifier is a wide specification including and many features (Interview 35). Three of the interviewees said it is important with warranty (Interview 7, 33, 35), and short lead times are to some extent requested (Interview 33). Two of the distributors stated that Axis's competitors offer shorter lead time, and think therefore it should be beneficial for Axis to reduce the lead time (Interview 23, 33). Today, it takes approximately 4-6 weeks from a distributor orders until Axis delivers. One of the system integrators said the lead time is not a big problem; when an end user starts looking for video surveillance products, the system integrator informs the end user about the lead time. Thus, he meant that the lead time does not affect the sales particularly (Interview 26). In the end, when the end user is about to make the purchase, the price is the most common order winner (Interview 22, 25, 32, 33, 35, 38).

#### Question 6: Why they prefer a product

The Indian end users are price sensitive, which strongly affects their choice of products (Interview 22, 25, 32, 33, 35).

# **Question 7: How they respond to marketing programs**

Axis consider the education of end users as a very important marketing program to make them understand why Axis's products are more expensive than the competitors' products. The sales team at Axis markets the products towards the system integrators (Interview 1, 7), as they meet the end users and try to sell the products to them. One of the interviewee stated that Axis is a push brand, which means that no end user will buy it if Axis does not work on selling the products (Interview 7). This makes education crucial for Axis's sales.

#### 5.3.3 The Indian Video Surveillance Camera Market

The security systems sector can be divided in 4 segments: access control, detector & scanners, Closed-circuit television (CCTV), and alarm systems (Kuick Research, 2013). Out of these segments CCTV is the largest and represents more than 50 % of the entire electronic security equipment market in India (Kuick Research, 2013; RNCOS E-Services Private Limited, 2012)

The Indian video surveillance camera market held a total shipment of 800 000 units in the fourth quarter of calendar year 2013 (6Wresearch, 2014), (Figure 41). This indicates an increase over the previous quarter with 20 %. The increase in Q3 was 51 % (6W Research, 2013). The IP segment of the market held 28,714 units in Q3 (6W Research, 2013). In Q3 2013 the top three players together owned 53% of the market share (6W Research, 2013). In Q4

2013 the two top players was Hikvision and Cp-plus that owned 37 % of the market (6Wresearch, 2014). Conferring to 6Wresearch (2014) the reason for the rise of Hikvision as the market leader in Q4 is the increasing demand for low cost video surveillance cameras. This demand has urged the growth for the low cost profiled companies on the market (6Wresearch, 2014). The segment that is mainly driving this growth of low cost cameras is the Small and Medium Business (SMB) (6Wresearch, 2014). On the other hand, the high end camera market is generated and driven by the segments of public infrastructure and government (6Wresearch, 2014).

The analog cameras had 95 % share of the market leaving 5 % to IP systems in Q4 2013 see an increase from 4 % in the previous quarter (Figure 42) (6W Research, 2013). The increase for the IP cameras can be tracked back to the increased need of advanced security on the Indian market (6Wresearch, 2014). Additionally, the demand for IP is prospected to intensify over the coming years due to infrastructure projects like metro rail, mono rail and airports (6Wresearch, 2014). Furthermore on the technical side, statistics showed that of the total units shipped in Q3 2013, 74% of the cameras where dome shaped, whereas 3 % of the cameras had Pan-tilt-zoom (PTZ) feature (6W Research, 2013) . Looking at the market share in Q4 2013 the dome shaped cameras hold 66% of the total market and the bullet type cameras have 29% (6Wresearch, 2014). Furthermore, in Q4 2013 out of all cameras on the market around 23 % have PTZ features (6Wresearch, 2014).

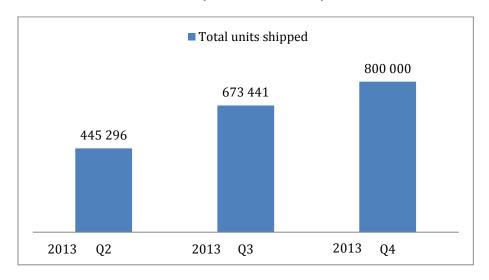


Figure 41: Total units shipped for the India Video Surveillance Camera market during quarter Q2-Q4 in year 2013 (6W Research, 2013; 6Wresearch, 2014; 6Wresearch, 2013 a).

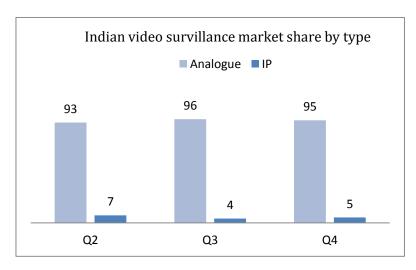


Figure 42: 6Wresearch Quarterly India Video Surveillance Camera Market, CY Q2-Q4 2013 (6W Research, 2013; 6Wresearch, 2013 a; 6Wresearch, 2014).

According to the Frost & Sullivan report in September 2013, the market for Video Surveillance-as-a-Service (VSaaS) has just started on a low scale in India. The outlooks for the market are positive, but the majority of consumers are still not aware of the concept surveillance as a service (Frost & Sullivan, 2013). However, the trends are positive due to the government's intentions to develop the IT infrastructure, the upcoming cloud-based solutions, and the customers increased knowledge of the benefits with a strong surveillance system (Frost & Sullivan, 2013).

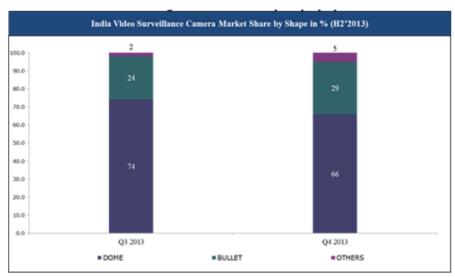


Figure 43: Market share by shape in present of the India Video Surveillance Camera Market, CY Q4 2013. Others include Box, Pinhole, Standing, Cube, Ceiling and Mount shaped cameras (6Wresearch, 2014).

## 5.3.3.1 Import data for India

When extracting data for import of goods in the category HS-code 852580 (television cameras, digital cameras and video camera recorder) in to India, it can be seen that the total volume imported is USD 490 737 million during April 2012 to March 2013 (Table 15) (Department of Commerce India, 2014).

China has a significantly higher volume of imported goods in the category with HS-code 852580 and India imports significantly more from China than from other countries in the category with HS-code 852580 (Table 16)

Table 15: Import data for India in million USD for the year April 2012 to March 2013 (Department of Commerce India , 2014).

HSCode	Commodity	2011- 2012	%Share	2012- 2013	%Share	%Growth	HS Code digit level option
852580	Television cameras, digital cameras and video camera recorders	520	0.1063	578	0.1177	11.09	8
	India's Total Import	489 320		490 737		0.29	

Table 16: Import data for the commodity 852580 television cameras, digital cameras and video camera recorders in to India (Department of Commerce India a, 2014).

Country	Values in US\$ Million		Quantity in thousands	
	2012-2013	2013-2014 (Apr-Dec)	2012-2013	2013-2014 (Apr-Dec)
China P Rp	323.74	187.84	28,279.44	14,934.65
USA	9.64	8.98	20.09	18.40
Singapore	7.21	6.87	22.72	34.54
Hungary	1.81	0.98	2.50	1.74
Czech Republic	0.67	0.28	0.67	0.31
Sweden	0.45	0.48	1.23	1.00

## 5.3.3.2 Growth trends

Many different market research companies (e.g. Kuick Research, RNCOS E-Service Private Limited, and 6Wreserach) predicts the future growth of the Indian video surveillance market. The more sources pointing towards the same direction the more likely the prospects are.

The terrorist attack in Mumbai 2008 is seen as a major trigger for increased public security systems in India. After the event security companies, the police and the Indian government are using more and more video surveillance systems (6W Research, 2013; RNCOS E-Services Private Limited, 2012). This have led to that the demand of video surveillance have increased and to a growth of the Indian video surveillance camera market (6W Research, 2013; RNCOS E-Services Private Limited, 2012; 6W Research, 2012). Additionally, this has given the end users insight about the importance of more advanced safety and security solutions (RNCOS E-Services Private Limited, 2012; 6W Research, 2012). The most growing segments are city surveillance, hospitality, airport security, banking, financial services & Insurance (BFSI), retail, Business process outsourcing (BPO), manufacturing, college campuses, infrastructure companies and education (Kuick Research, 2013). Looking at volume demand the government sector is the largest one. Although, the private sector is showing growth their demand is small compared to the government (Kuick Research, 2013). Activities that can hamper the growth of the Indian video surveillance market are the absence of government infrastructure and a regulatory framework (6W Research, 2013).

A report from Kuick Research in April 2013 states a future growth rate of more than 20 % per year for the CCTV surveillance market. One driver is the end users increasing awareness of the market (Kuick Research, 2013). In February 2012, another report (Table 17) estimates the growth for the CCTV market to be at a Compounded Annual Growth Rate (CAGR) of around 27 % in the years 2010-2015 (RNCOS E-Services Private Limited , 2012). The report from 6Wresearch in April 2012 the growth of the video surveillance market is estimated to a CAGR of 32,49 % during the years 2011-2016. Although, the IP based surveillance systems is expected to have a higher growth rate than the analog based systems, the expected rate of growth for IP is 41.78 % during the years 2011-2016, (Figure 44) (6W Research , 2012). 6Wreserach (2012) forecasts the Indian video surveillance market to reach USD 953 million in 2016.

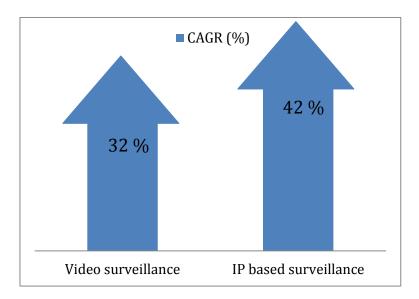


Figure 44: Estimated yearly growth for the Indian video surveillance market and for the IP based surveillance systems during year 2011-2016 (6W Research , 2012).

Axis confirms that the IP market is growing (Interview 32). Analytics on cameras are getting more popular mainly for end users with duty benefits, although it is the simple functions that are most requested on the market (Interview 32). The market show tendencies that guards will slowly be replaced by cameras, although they will at first be used as complement to each other (Interview 35). The market for surveillance cameras are growing around 20 % per year (Interview 35). When looking at the growth for different end user segments interview 35 estimates the yearly growth for government as 20% and for commercial 10 %. In interview 26 it was mentioned that the company of the interviewee had 70% IP in new tenders. Three were reasons mentioned for the IP market's growth: networking companies asking for more products, prices for IP is going down, and the technology is more spread and available. The reasons for the growth of the whole video surveillance market in India were according to interview 26: new regulations for IT companies, global press from big companies, and terrorism. It was also mentioned that companies with high visibility, aggressive marketing, and good relations with consultant companies have advantages and are growing the most. Additionally, Interview 33 mentions that other companies in the same industry as Axis have been growing due to start of own import in to India that has given them control over the process. It was also stressed that a company needs operations in India in order to grow on the market.

Table 17: Summary of forecasts of the Indian market by different research companies (6W Research, 2012 (RNCOS E-Services Private Limited, 2012; Kuick Research, 2013).

Research company	Year	Market	Growth
6W Research (2012)	2011-2016	Indian Video surveillance market	CAGR of 32,49 % (reaching 953 million USD in 2016)
6W Research (2012)	2011-2016	Indian IP based surveillance systems	CAGR of 41.78 %
Kuick Research (2013)	-	Indian CCTV surveillance market	20 % per year
RNCOS E-Services Private Limited (2012)	2010-2015	Indian CCTV Market	CAGR of 27 %

# 5.4 Trade Regulation

This section describes data regarding trade in sections of import, tax, trade barriers, trade agreements, and government incentives. When studying trade of products between different countries, it is of interest to understand its context by means of regulations that will affect the products distribution flow.

#### **5.4.1** *IMPORT*

The import system for India is similar to the global import system in most aspects. The amount of



custom duty applied for goods imported into India depend on the type of the goods coming in to the country. In order to determine what type of product it is, India applies the Harmonized Commodity Description and Coding System of Tariff Nomenclature (HSN) that is set up by the world customs organization, WCO (PwC, 2012). This system is a classification system under the Customs Tariff Act, 1985, and the system commonly follows the same principles in all countries. However, this may be different in trade practice (European Commision , 2013). In 2012 the latest version of the HS-based system came and the implementation is very likely to be in different phases in different countries (European Commision , 2013). The HSN-code for a specific product is decided by Indian custom officials on the first time that specific product arrives to India (PwC, 2012). For this process, and for all times goods are entering India, it is

essential that all documents are correct. In order to ensure that all documents are correct, it is highly recommended to have someone knowledgeable in import to help arrange everything needed (PwC, 2012). When the product is classified and the duty is decided, it is paid as a percentage of the transaction value for the product (PwC, 2012).

#### 5.4.1.1 Duty system

The custom duty applied is not a uniform component in India; it is a combination of several different components (Exportrådet, 2010; PwC, 2012):

- Basic custom duty (BCD)
- Additional duty (CVD)
- Education Cess (EC)
- Special Additional Duty (SCVD)
- Assessable value (AV)

The different duty components have special attributes. The Basic custom duty is a pure import duty and has a maximum rate of 10 %, and can vary between 0-10 % depending on the goods classification (Exportrådet, 2010; PwC, 2012). This duty is not deductible and is not paid applied to local companies in India (Exportrådet, 2010). The duty percentage is applied to the landed value of the goods, that is the cost of insurance and freight (CIF), plus landing charges at 1 % (PwC, 2012).

The Additional duty (CVD) is a duty that compensate for the local production tax (excise duty) that is applied in India for manufacturing companies (Exportrådet, 2010; PwC, 2012). The rate of this duty is usually 10 % according to Exportrådet (2010) but 12 % according to PwC (2012). For local and importing companies this duty is deductible (Exportrådet, 2010). It is applied on the landed value of the goods plus the applicable BCD-value (PwC, 2012).

Education Cess (EC) is divided into different duties that are Education cess (EC) and Secondary and Higher Education cess (SHEC) (PwC, 2012). These duties are usually 2 % and 1 % respectively, adding up to 3 % paid as EC duty (Exportrådet, 2010) (PwC, 2012). The duty is not deductible and is applied on the cumulative customs duty (PwC, 2012). The Special Additional Duty (SCVD) is compensation for local Value Added Tax (VAT) (Exportrådet, 2010) (PwC, 2012). The duty is usually 4 % and is deductible for local companies but not for importing companies. It is applied on the aggregate of the assessable value of the imported goods, the total customs duties (BCD and CVD) and used EC and SHEC (PwC, 2012). The Assessable value (AV) is calculated as CIF plus 1 % landing charges (PwC, 2012).

Except for the cost of the actual customs duty that is paid upon import of products in to India, there are several other costs that one have to bear in mind when talking about cost of import;

cost of custom agent/broker, administrative costs i.e. warehousing and documentation, transportation cost, labor costs, custom handling and formalities, cost of consultant agency, service tax on previous mentioned costs (Exportrådet, 2010). Exportrådet (2010) estimates the mentioned cost to be between 10 - 20 %. The cost will be different for specific products, and must be further investigated on product level to be more specified. Table 18 illustrates an example of the duty structure.

Table 18: Customs Tariff of product with HS-code 85258030 (Central Board of Excise and Customs, 2014).

<b>Customs Duty</b>	Rate of Duty (Tariff)	Rate of Duty (Effective)
Basic Customs Duty	10	10
Education Cess	2	2
Secondary and Higher Edu. Cess	1	1
Countervailing Duty (CVD)	12	12
Additional CVD	4	4
Total Duty	28.852	28.852
Sample calculation for Assessable value INR 100 000	28851.84	28852

#### 5.4.1.2 Customs value

The custom value is defined as the transaction value, which means the price paid for the product inside India (European Commision, 2013). The regulations for how to determine the custom value is found in the Agreement on implementation of Article VII (Custom Valuation) of GATT 1994 (European Commision, 2013). If the value can't be decided in regards to the transaction value, the following values can be used as a basis (European Commision, 2013):

- The transaction value of identical imported goods
- The transaction value of similar imported goods
- The deductive value
- The computed value
- The value deduced by way of an appropriate fallback method

According to PwC (2012) the valuation process is generally in line with the World Trade Organization agreement, but the Indian government has also established their own rules of how to valuate goods. The Indian customs also have a categorization of products coming in to the country, the categories are as follows (European Commission, 2013):

- Home consumption
- Transit
- Temporary importation
- Warehousing
- Use in a special economic zone

#### 5.4.1.3 Requirements for Import

When a Company wants to start importing in to India there are some requirements that needs to be fulfilled before the import can start. Here the most crucial parts of the import set up will be presented. The absolute first step is to register as a company in India (Interview 22, 34). After that all companies planning to start importing to India have to register for a *Permanent* Account Number (PAN) in order to handle the tax transactions (Interview 22, 25, 31, 34) (European Commission, 2013). The PAN is applied for at the Income Tax Department and the number has to be stated in all documents related to financial transactions for the registered company (European Commission, 2013). The time required for getting a PAN is around 15 days for manual applications and 5 days for online applications. The validity time frame for the PAN is unlimited and the cost is INR 94 for Indian residents (European Commission, 2013)<sup>31</sup>. After this is managed the company can apply for a license called *Importer/Exporter* code (IEC) (Interview 5, 31, 23, 33, 22, 34, 28, 24, 25) (IndianYellowPages.com, 2014). The license tells that the company is registered as an importer and has declared their company profile to the given authority (European Commission, 2013). The process time given for getting an IEC has been varying among the interviewees. According to the European Commission (2013) the process takes 3 days, but both Interview 31 and 25 indicates a process time of 3-6 months and Interview 34 gives a time of 3 weeks. Both Interview 28 and 24 state that it is easy to get an IEC in India. Although the time is not clearly given, the total cost to get the license is INR 1280 referring to the European Commission (2013). The validity time frame is fixed by the given authority (European Commission, 2013). To get the code one has to apply at the Directorate General of Foreign Trade (DGFT) (European Commission, 2013). Something that more or less all interviewees have agreed upon is the need of a good consultant for the set up and assistance with all documents (Interview 23, 22, 28, 34, 31, 25) (PwC, 2012). The consultant hired for the set-up of an import process must be one that is knowledgeable in the industry, has experience in handling Indian customs and know all the regulations and laws connected to the process. Many of the interviews stressed the importance of putting effort and high priority on the selection of consultant (Interview 23, 22, 28, 34, 31, 25). Interview 28 also presents a lead time documents of 2-3 months for arranging all documents. To summarize this process of setting up an import activity in India includes many steps (Table 19).

<sup>31</sup> Further specific details for the application process are given by the European Commission (2013).

Table 19: Actions required for starting import in India.

Action	Lead time	Activity mentioned in interview
Register as a company	n/a	22, 34
Permanent account number	5 – 15 days	22, 25, 31, 34
Importer/Exporter Code	3 days, 3 weeks, 3-6 months	5, 31, 23, 33, 22, 34, 28, 24, 25
Consultant	2-3 months	23, 22, 28, 34, 31, 25

# 5.4.1.4 Required documents

In order to import goods to India there are a number of documents required from the importer. These documents have to be in place before any import activity can start. The most important documents are presented below.

All shipments coming to India need an *Import General Manifest*, which is declaring the type of transport for the arriving shipment and what goods it contains (European Commission , 2013)<sup>32</sup>.

All shipments going through customs need a *Bill of Entry* document, which is the official form of the customs clearance of goods (Interview 25, 23, 27, 34) (European Commision , 2013)  $^{33}$ . Along with the Bill of Entry there are some documents that should be added along to the customs. These documents are presented in the following list (European Commision , 2013):

- A *Commercial Invoice* that is declaring the details of the transaction. This document is required for customs clearance (Interview 25, 31).
- A *Bill of Lading/Air Way bill*, which is a document declaring the details of transportation of goods by sea respectively by air. The document is also a transport contract between the consignor and the transport company (Interview 25. 34).
- A *Packing List* that is a document declaring details of the shipment and will determine how customs will treat the goods. The document is required for customs clearance (Interview 25, 31, 34).
- A *Certificate of Origin* is a document certifying the origin of the goods. The document is needed if the importer specifically requires it (Interview 25, 34).

<sup>32</sup> This document is required for all incoming shipments and should be given to customs either on the arrival of the goods or before the goods arrives, depending on the form of transport. For shipments by rail or road the documents should be handed to customs upon arrival of the goods, and for shipments coming by air or sea the documents should be handed over before the goods arrive (European Commision , 2013).

 $<sup>^{33}</sup>$  The document is handed to customs through their electronic system called EDI, where the importing companies today can register for free (this may change in the future) (European Commission , 2013).

- A *Declaration of Dutiable Value*, which is declaring the calculation of the dutiable value of the shipment. The document is required depending on the goods value, often required for goods valued over INR 1000 (Interview 25, 34).
- A *Pro Forma Invoice* presents details of the transactions made prior to the real invoice and in addition to the commercial invoice. The document is required if specially asked for by the importer or authorities.

Depending on the goods characteristics further documents may be required as well for the customs clearance, for example import licenses, and certificates from special authorities (European Commision , 2013). It should also be noted that customs or other authorities may request even further documentation if they consider the given documentation doubtable or not enough (European Commision , 2013). Additionally, requirements for import documentation are influenced by the local trade practice that can be different depending on the industry or on which port the goods are arriving to (European Commision , 2013).

## 5.4.1.5 Import regulations

In the Indian customs there is a categorization for imported products into the following categories (European Commision , 2013):

- *Freely importable goods:* 
  - o No import license is required
- Goods included in the list of *restricted goods*:
  - o Importers must obtain a license to import restricted items, which is to be requested from the authority responsible for the particular items and from the Directorate General of Foreign Trade
- *Canalized goods*:
  - The importation into India of certain products is only allowed to specific public-sector agencies<sup>34</sup>.
- *Prohibited goods*:
  - o Products defined as prohibited are banned from importation<sup>35</sup>.

Additionally, under the category of restricted goods there is a regulation on *Wireless transmitting or receiving apparatus* (European Commision , 2013), which can be of valuable to be aware of regarding Axis products. The regulation states that in order to take in wireless transmitting or receiving apparatus to India one need a license from the Department of Telecommunications (European Commision , 2013).

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<sup>&</sup>lt;sup>34</sup> Please see the documents Imports through Designated State Trading Enterprises and Imports through Governmental Bodies for details.

<sup>&</sup>lt;sup>35</sup> Please see the document Prohibited Imports for details.

The HS-codes for the products that go under this regulation are (European Commission, 2013):

- 8525.50.10
- 8525.50.20
- 8525.50.90
- 8525.60.12
- 8525.60.19
- 8525.60.92
- 8525.60.99

Moreover, another regulation that is of interest for Axis business in India is the regulations on importation of *Second-Hand goods* (Interview 44, 30). The regulation states that all pre-used/second-hand goods are classified as restricted goods and can only be imported due to the principles by the Directorate General of Foreign Trade (European Commission , 2013). This implies that it is very hard to import second-hand goods in to the Indian market (Interview 34, 44, 30). This regulation makes it difficult for Axis to import repaired products from other markets for the RMA flow (Interview 44).

## 5.4.1.6 Packaging and labeling

There are also regulations regarding the packaging and labeling of the products. These regulations are very important to address if one aims to start an import activity in to India.

The regulations states that the labeling should be done clearly and text should be written in either English or Hindi (European Commision, 2013). Usually the following data is required to be presented on labels of the packages (European Commision, 2013):

- Name and address of the manufacturer
- Name and kind of the product
- International details and signs which should be observed in the course of transportation and handling
- Country of origin
- Production date
- Expiry date, if applicable

India also has special labeling regulations for packed commodities of up to 25 kg or 25 liters (European Commission, 2013)<sup>36</sup>. This label is called *Maximum retail price* (MRP), and is according to the given name showing the maximum retail price allowed for sale of the product inside India (Interview 2, 31, 25, 38, 23, 36, 33, 22, 28, 24, 34). The label should not only include the maximum retail price, there are a number of other data points that has to be

<sup>&</sup>lt;sup>36</sup> These regulations can be find in the Legal Metrology (Packed Commodities) Rules from 2011.

printed on the label. The label should include the following data (European Commission , 2013):

- Name and address of the manufacturer
- Name and address of the importer
- Common or generic name of the product
- Net quantity
- Number of commodities, if applicable
- Month and year in which the commodity was manufactured, prepackaged or imported
- Maximum retail sale price

When looking at importing products in to India there might be other product-specific requirements according to respectively regulations that have not been mentioned here. Therefore it should always be checked prior to starting any import in to India (European Commision, 2013).

#### 5.4.2 EXPORT

There are three situations where products are allowed to be exported from India (Interview 30). The first situation is when products are sold to someone abroad; either the products are produced in India, or the products are proved as rubbish and are sold to a very low value. Secondly, products can be exported to be presented at exhibitions or similar. These products have to be reimported. Finally, products can be exported if they are reimported. These products are identified by their serial number, which have to be the same on export and reimport (Interview 30).

#### 5.4.3 Overview India tax

The Indian tax system is not unified for the whole of India. Since there are 28 states and 7 union territories (Exportrådet, 2010) that all have different tax regulations there are a few variations on tax systems that one have to be aware of.

#### 5.4.3.1 Indirect taxes

There are a few different indirect taxes in India (Exportrådet, 2010):

- VAT
- Central Sales Tax (CST)
- State Sales Tax
- Service Tax
- Excise Duty

Most of the states have Value Added Tax (VAT). According to PwC (2012), the rates are either 1 %, 4 %, 5 %, 12,5-15 %, or 20 %. The interval between 12.5-15 % is a general rate (PwC,

2012). The VAT depends on the product. In some of the states there is a local state sales tax. When there is an inter-state sale the Central State Tax (CST) is applied. This CST is usually on 2 % (Exportrådet, 2010). The tax applied depends on the final destination in the country, not only the port of arrival (PwC, 2012). The VAT is not applied on imported goods and exported goods are zero rated (PwC, 2012). Although, Exportrådet (2010) specifies that the rate for cameras and encoders are 4 % in all the states that is using VAT in India. For products manufactured in India the VAT can be set off against VAT that is applied on re-sale of goods (Exportrådet, 2010; PwC, 2012). Central Sales Tax (CST) is for interstate sales of commodities and applies as 2 % of the goods total value (Exportrådet, 2010; PwC, 2012). This tax can as the VAT be offset against CST that is applied on re-sale of goods (Exportrådet, 2010; PwC, 2012). State Sales Tax is applied on intrastate sales of commodities in states not using VAT. The rate applied is different in the states that use the tax and there is no common rate (Exportrådet, 2010; PwC, 2012). The Service Tax is an indirect tax that is applied to all services done with the exemption for the ones mentioned in the so called negative list, which is produced by the government (PwC, 2012). This regulation was put in use in July 2012 (PwC, 2012). The rate for the tax is 12 % according to both PwC (2012) and Exportrådet (2010). Although the effective rate is 12.36 % due to EC that is 2 % and SHEC that is 1%, as mentioned earlier (PwC, 2012). The last indirect tax that will be mentioned here is the *Excise Duty*. This tax is applied for all products produced in India, a so called production tax (Exportrådet, 2010; PwC, 2012). The rate is usually 10 % of the value for the product according to Exportrådet (2010) and according to PwC (2012) the standard rate is 12 %. Although the effective rate is 12.36 % according to PwC (2012) and the rate will vary depending on the HS-code for the product (PwC, 2012). If components are produced inside India the Excise Duty paid for the components can then be offset against Excise Duty paid for the finished product.

Exportrådet (2010) also mentions that there can be differences in tax paid for imported cameras versus domestically sold cameras. The differences according to Exportrådet (2010) are for intra-state sold cameras about  $10.6\,\%$  and for inter-state sold cameras about  $12.8\,\%$ . Figure 45 illustrates the indirect tax rates for Sweden, India, and Asia is shown as an average for 2013 and 2014 (KPMG, 2014).

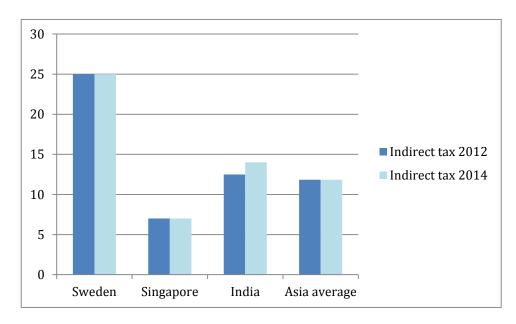


Figure 45: Indirect tax rates (KPMG, 2014).

# 5.4.3.2 Intention to change tax system

PwC (2012) are reporting intentions from the government to change the tax system in India, by replacing the CST tax with a *Goods and service tax* (GST). The initiative started in year 2006 and PwC (2012) prospects that it will start in 2014. The implementation of the tax is planned to take three years and the final product will be a state GST. The idea is that the GST will incorporate CVD, Excise duty, Service tax, CST and state VAT in to one tax (PwC, 2012). The new tax should be uniform trough India and apply to both goods and services (Exportrådet, 2010).

#### *5.4.3.3 Direct tax*

The corporate income tax (CIT) is applied on all income by companies in India, both domestic and foreign companies (Exportrådet, 2010; PwC, 2012). Depending on if it is a local company or a non-local company it is taxed differently. The local company is taxed on their worldwide income where's the non-local company is taxed on their income inside India. According to KPMG (2014) the corporate tax used in India are 33.99 % in 2014, a change from 2012 when it was 32.45 %. According to PwC (2013), the tax applied for a local company in tax year 2013/2014 is 30 % and for a foreign company with activities in India the rate is 40 %. Added to both these rates are then surcharge, EC, and SHEC. The rates are also affected by the income level of the specific company (PwC, 2013). If the income is over INR 10 million, a local company is liable to pay a surcharge of 5 % on the CIT charge and for a foreign company the surcharge is 2 % (PwC, 2013). For income over the level of INR 100 million the rates of surcharge is 10 % for both local and foreign companies (PwC, 2013). Today there is no local,

state, or provincial tax that is applied on income (PwC, 2013). Figure 46 illustrates average corporate tax rates for Sweden, Singapore, and India in 2012 and 2014. An average for Asia is shown for 2012 (KPMG, 2014).

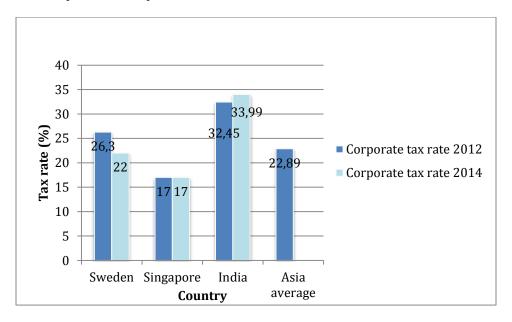


Figure 46: Corporate tax rates (KPMG, 2014).

There is also a minimum alternative tax (MAT) in India (PwC, 2013). This tax is applied on the adjusted book profits where the tax liability is under 20.96 % of the adjusted book profits for the tax year 2013/2014 (PwC, 2013). The rates for the MAT is dependent on level of income and if the company is local or foreign, the rates are presented in Table 20.

Table 20: Minimum alternative tax rates (PwC, 2013).

Income	Domes	tic company Foreign		n company
	Rate of MAT (%)			
	Basic	Including surcharge and	Basic	Including surcharge and
		education cess		education cess
Less than INR 10 million	18.5	19.055	18.5	19.055
Less than INR 100 million	18.5	20.008	18.5	19.436
More than INR 100 million	18.5	20.961	18.5	20.008

The regulations in India regarding withholding taxes (WHT) are applied on the payer of income for certain specified payments (PwC, 2013 a). This taxes are applied both on local and non-local companies, although the rates are different. The payers have to withhold tax when the regulated payments are credited or paid. In Appendix F a lists with the specified payments are presented together with the rates applied.

The Central Board of Excise and Customs (2014) communicates that for income that is added in India by foreign company with no subsidiary in India the WHT rates are as follows:

Dividends: 0%Royalties: 10%Interest: 20%

Technical Services: 10%Other Income: 40%

(Central Board of Excise and Customs, 2014)

#### 5.4.4 TRADE BARRIERS

There are a number of trade barriers that is of interest for this project. To begin with, all products must be labeled with maximum retail price (MRP), which increases the work that needs to be done by the importer before the products enter India (Interview 22, 23, 25, 29, 31, 33, 36, 38) (European Commision , 2013). Secondly, the European Union points at lengthy customs procedures as a barrier to trade (European Union, 2013). Finally, on the World Bank's list of Ease of doing business, India is ranked as number 134 out of 139 (The Economic Times, 2013). "Higher rankings indicate simpler regulation and stronger protection of property rights" (The World Bank, 2013a). Interviewees indicated that it is complicated to conduct business in India (Interview 22, 23, 26, 36).

# 5.4.5 TRADE AGREEMENTS

India has several trade agreements with other countries (Table 21) that could be relevant to consider depending on if Axis has a configuration and logistics center (CLC) in that country/any of the countries the agreement includes (column 3). According to interview 11, Axis does not redesign distribution flows only because of a trade agreement. Therefore, trade agreements between India and countries where Axis does not have any CLC today will not be investigated further.

Table 21: List of trade agreements.

Name of trade agreement	Comments	Axis has CLC in this country/any of these countries
Agreement of Cooperation with Nepal to Control Unauthorized Trade		
Agreement on Economic Cooperation between India and Finland		
Agreement on South Asia Free Trade Area SAFTA	The SAARC countries include Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka (South Asian Association for Regional Cooperation, 2009).	
Asia-Pacific Trade Agreement APTA	Included countries are China, Bangladesh, India, Lao, Republic of Korea and Sri Lanka (Government of India, Ministry of Commerce & Industry, Department of Commerce, 2014).	X (in China)
CECA between the Republic of India and the Republic of Singapore	To use, the products exported must be (1) "obtained in the territory of the exporting Party"; or (2) the HS code must be changed at an four digit level; and the total value of the materials, parts or produce originating from countries other than the Parties or of undetermined origin used in the manufacture of the product does not exceed 60% of the FOB value of the product so produced or obtained; and the product so produced or obtained is classified in a heading, at the four digit level, of the Harmonised System different from those in which all the non-originating materials used in its manufacture are classified; or the product satisfies the Product Specific Rules specified by the Indian government (Government of India, Ministry of Commerce & Industry, Department of Commerce, 2006).	
Comprehensive Economic Cooperation Agreement between India and Malaysia		
India Africa Trade Agreement		
India Chile PTA		
India Afghanistan PTA India ASEAN Agreements	The ASEAN countries include Brunei, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam	

Name of trade agreement	Comments (Association of Southeast Asian Nations, 2009).	Axis has CLC in this country/any of these countries
India Bhutan Trade Agreement		
India Japan CEPA		
India Korea CEPA		
India MERCOSUR PTA	Included countries: Argentina, Brazil, Paraguay, Uruguay, Venezuela and Bolivia (MERCOSUR, 2014).	
India Nepal Trade Treaty		
India Sri Lanka FTA		
SAARC Agreement on Trade in	The SAARC countries include: Afghanistan,	
Services SATIS	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka (South Asian Association for Regional Cooperation, 2009)	
Treaty of Transit between India and Nepal		

In 2007, European Union and India started negotiations in order to establish a free trade agreement, but there is no agreement in place yet (European Union, 2013). From the interviews, it was learnt that the establishment of new trade agreements are postponed until after the election, which will be held in India during 2014 (Interview 22, 33).

The Asia-Pacific Trade Agreement APTA includes China where Axis has a CLC and the agreement contains HS code 900211 (Government of India, Ministry of Commerce & Industry, Department of Commerce, 2014). Products that can be classified with this HS code are camera lenses, which are a part of a video surveillance camera (Interview 11). The camera lenses are attached to the video cameras when the products are sourced from Axis's suppliers (Interview 11). The products Axis sources from the suppliers are mainly classified as HS code 8525 (Interview 11).

## 5.4.6 GOVERNMENT INCENTIVES

The Indian government has established a number of incentives: special economic zones, SEZ, industrial parks, tax holidays, free trade zones, FTZ, and bonded warehouse.

## 5.4.6.1 Special economic zone

There have been special economic zones, SEZ, in India since 2000. The purpose is to increase the economic growth through higher economic activity, promotion of export of goods and

services, promotion of investments from foreign and domestic sources, create employment, and develop infrastructure (Government of India, 2000h). SEZs are areas considered to be outside the India customs territory and are therefore duty-free (PwC, 2012);

- "SEZ developers are entitled to 100 % tax holidays (of profit and gains derived from the business of developing the SEZ) for 10 consecutive years out of 15 beginning from the year in which the SEZ is notified by the Government" (PwC, 2012).
- "A unit set up in an approved SEZ enjoys a 100% tax holiday for five years and 50 % for the next ten years (in the last five years subject to certain additional conditions) out of profits derived from actual exports of goods and services (PwC, 2012).

# 5.4.6.1.1 Industrial parks and tax holidays

There are incentives applicable for industrial units that have started before March 31, 2011 (PwC, 2012). Companies acting within infrastructure, power, and natural gas network are subject to tax holidays (PwC, 2012). In addition, there are tax holidays for companies within the food processing industry; scientific research and development, hotels and convenience centers, and hospitals (PwC, 2012).

### 5.4.6.1.2 Deduction on investments

A number of different types of business are entitled to 100% deduction on any capital expenditure, excluding land, goodwill, and financial instruments (PwC, 2012). Businesses that can benefit from this deduction in investments are listed in Appendix G. It includes for example companies operating within cold chain facility, warehousing facility, natural gas or crude, hotels, housing projects etc. (PwC, 2012). For companies that started operating business such as cold chain facility, warehousing for agricultural produce, hospital with at least 100 beds, or notified affordable housing project and production of fertilizer, and started on or after April 1, 2012, there is a deduction available of 150% of capital expenditure incurred on or after April 1, 2012 (PwC, 2012).

## 5.4.6.2 Free trade warehousing zones

India has established free trade warehousing zones, FTWZ, designed to be used as international trading hubs as links in global supply chains, for both Indian companies and foreign companies (PwC, 2012). FTWZs are areas outside the India customs territory; there is no customs duty when products are imported into a FTWZ for authorized operations. Today, there are three FTWZs in India: in Chennai, Mumbai, and New Delhi (Interview 27). Various services can be provided by logistics companies within FTWZs, for example labeling, quality control, package management, customs declaration etc. (Interview 27). Products are subject to customs duty when they are imported into India (PwC, 2012).

Advantages with free trade warehousing zones in India are (PwC, 2012);

- Goods can be stored in the zones for five years without having to pay customs duty, interest or penalty (PwC, 2012)
- Services performed within the FTWZ, such as inbound taxable services that are to be used for authorized operations, are exempted from service tax. Also, transportation of goods from port to FTWZ and from FTWZ to port are also exempted from service tax (PwC, 2012)
- Inside the FTWZ, no central excise duty is livable (PwC, 2012)
- Goods purchased from the double taxation avoidance agreement for authorized operations within the FTWZ are not subject to central sales tax (PwC, 2012)
- Any instrument executed in connection with carrying out of the purposes of the FTWZ are not subject to stamp duty (PwC, 2012)
- When products that have been imported into a FTWZ are re-exported, the trading profit that may have been earned is exempted from income tax (PwC, 2012)
- In the FTWZ, there are support facilities, for example banking and information systems for cargo tracking (PwC, 2012)
- High quality infrastructure is available (PwC, 2012)

Regulations of the business conducted in FTWZ are (PwC, 2012):

- Only convertible foreign currency is accepted for transactions (PwC, 2012)
- The party offering storage in a free trade warehousing zone has to be a positive net foreign exchange earner over five years and has to follow the NFE requirements. No obligation is applied for the clients to this party (PwC, 2012)
- The value on FOC imports should be registered as foreign outflow (PwC, 2012)
- Supplies that are made to bonded warehouse with payments in foreign currency, and goods are counted as inflow of foreign exchange earnings (PwC, 2012)

The interviewees gave different views on FTWZs in India. The three distributors were skeptical to the concept. They meant that the FTWZs are introduced recently, and the Indian government has not yet established complete processes (Interview 22, 23, 33). One distributor states that there are uncertainties regarding the duty structure, which can cause claims on repayments in a later stage (Interview 33). On the one hand, two of the interviewees stated that the time for customs clearance when products are imported into India from a FTWZ is shorter compared to when products come from another country into India (Interview 23, 27). One of them says 3 days shorter (Interview 23). On the other hand, interview 22 states that it takes longer time to import into India from a FTWZ compared to when products come from overseas. Other information states that the time it takes to clear

products is similar independent from where they are imported (Interview 24, 35). Interviewee 36 recommends that if Axis wants to use a FTWZ, the company should keep the usual flow of products for some weeks in parallel with the flow through FTWZ to ensure that the distribution works. Finally, the correct documentation is a challenge in FTWZ, but documentation is always a challenge in India, according to interviewee 36. Table 22 summarizes the comments on FTWZ from the interviews.

Table 22: Comments on FTWZ from the interviews.

Interview	Comment on FTWZ
Interview 22	Negative, does not want to use FTWZ. Long time for customs clearance.
Interview 23	Wait and see how it develops. Quick customs clearance.
Interview 24	Regarding customs clearance, there is no difference between regular
	import and import from FTWZ.
Interview 33	Negative, have to wait and see how it develops. Good visibility.
Interview 34	Wait and see how it develops. Customs clearance is always a slow
	process in India.
Interview 35	Works fine, better than bonded warehouse.
Interview 36	Positive, it works well.

#### 5.4.6.3 Bonded Warehouse

A bonded warehouse is an area within the Indian customs area, located close to a port. Products can be stored in a bonded warehouse until customs duty is paid; products are not allowed to be withdrawn from customs area before customs duty is paid (Government of India, 2014). The warehouse issues a bond that it will not "allow the goods to be removed without consent of the custom authorities" (Government of India, 2014). But, products can be withdrawn from the bonded warehouse in portions by paying the customs duty proportionally. Within the warehouse, the products can be packed and branded for sales purpose (Government of India, 2014).

Products can be stored in a bonded warehouse maximum six months, but it can be extended to 9 months (Interview 23). When the goods have been stored in the bonded warehouse 90 days, interest of 15% has to be paid (Interview 27). The exchange rate that was valid when the products arrived to the bonded warehouse will be used to calculate the import duty when the products are withdrawn from the warehouse and imported into India (Interview 23).

Among the interviewees, different opinions on bonded warehouses were expressed. One company says they use bonded warehouse and think it works well (Interview 26). At two of the interviews, people stated that the authorities require extensive documentation to use bonded warehouse, which is complicated and takes time to compile (Interview 23). Another

company agrees that it is complicated, as bonded warehouses are ruled by the authorities which are not flexible and communication is slow (Interview 36). Also, regulations are complicated, and a consultant should be hired to handle complex situations that may arise (Interview 37). Finally, Interview 24 stated that the import process from a bonded warehouse is the same as when the products are imported directly from another country. Not many companies use bonded warehouse in India today (Interview 24).

#### 5.4.7 Transfer Pricing

Broadly, India follows OECD's guidelines of transfer pricing between associated enterprises, AEs (PwC, 2012). The regulations are designed to avoid profit generated within the country to be transferred to another jurisdiction (PwC, 2012). According to Ernst & Young (2012), India has broadened the definition of associated enterprises to include more company set-ups. Axis India is an associated company to Axis Communications AB since it is fully owned, 100%, by Axis Communications AB (Interview 9). Since Axis has research and development in Sweden, Axis Communications AB prefers a high transfer price in order to draw profit back to the Swedish organization (Interview 19). The arm's length principle (ALP) is applied in India. But, in cases where the ALP results in a reduction of chargeable income that is taxed, or the loss in India is increased, the ALP is not applied (PwC, 2012). The arm's length value cannot exceed the company's total value (KPMG, 2014).

Several interviewees stated that it is difficult to handle transfer pricing in India (Interview 22, 23, 30, 33). They advise Axis to be careful when working with transfer pricing and that complete documentation must be in place from the beginning if Axis starts import into India. The required documentation includes the following (EY, 2011):

- Ownership structure
- Profile of the multinational group
- Business description
- The nature and terms (including prices) of international transactions
- Description of functions performed, risks assumed and assets employed
- Record of any financial estimates
- Record of uncontrolled transaction with third parties and a comparability evaluation
- Description of methods considered
- Reasons for rejection of alternative methods
- Details of transfer pricing adjustments
- Any other information or data relating to the associated enterprise which may be relevant for determination of the arm's length price (EY, 2011)

Additional documents may be required, and the tax payer is obliged to provide an Accountant's Certificate to prove that the maintained documents are derived correctly (EY, 2011).

In India, an authority named Special Valuation Branch, SVB, conduct audits assessing companies to ensure the transfer pricing is made correctly according to Indian law. The purpose is to get an approval for setting the transfer pricing, which is valid for three years (Interview 22, 23, 30, 33). When a company starts importing into India, the transfer price that needs to be set must be 5-10% higher than the "real" transfer price. After one year, the SVB can make an audit, and if the company has used a too high transfer price during the year, the company will be paid back from Indian authorities and the company can start importing to the "right" transfer price (Interview 22, 23, 30, 33). Recommendations were given to use a customs agent (a consultant) to help setting the transfer price since it is difficult to understand the rules and documentation required (Interview 22).

In India, companies have to handle both state and federal law. Laws and regulations are changed often and quickly, which makes it difficult to be compliant (PwC, 2012). There are legal proceedings on transfer pricing which takes time. There are improvements and developments made by the authorities, but it takes time (PwC, 2012).

# 5.5 Distribution Flow

This section describes data regarding distribution flow in five parts. Initially, the conditions for the distribution flow are outlined. When studying distribution of products between different countries, the context that will affect the design of the distribution flow is interesting to understand. Secondly, Axis's distributors in India are presented. The three final sections describe the two types of end users that buy Axis's products and how the distribution is made to these two end users.



#### 5.5.1 Overall conditions for the distribution flow

The distribution flow from Axis to the end users includes two intermediaries (distributors and system integrators) as defined in Axis's partner model. It enables scalability for Axis in terms of opportunity to reach a large number of end users without having to handle all transaction points (Interview 20). Axis works with three distributors in India, and leaves Axis with three transaction points, even though the number of end users are many more. Except letting the distributors handle transaction points to the system integrators, they are supposed to keep stock of Axis's products (Interview 20).

Axis Singapore sells to the distributors, and Axis India is not involved in the sale of products to Indian end users<sup>37</sup>. Axis India is a fully owned subsidiary of Axis Communications AB and does marketing of the products (Interview 9). Products ordered by Indian distributors are consolidated together with other orders and shipped to Singapore, where the Indian distributors pick up the products. Interviewee 19 states that if Axis decides to import products into India, the shipment will be made directly to India, not via Singapore.

Sourcing of products is mainly made from Poland and Thailand. When the products are purchased, they are shipped to Axis's CLC, which are located in Sweden, Hungary, the US, Czech Republic, and China (Axis Communications AB, 2013). When an order is received from a distributor, it is configured and packed in a CLC and shipped to the distributor. The service target is to deliver within ten days (Interview 19).

## 5.5.2 Axis's Distributors in India

Axis works with three distributors in India; ADI, Anixter, and Ingram Micro (Interview 2). Table 23 summarizes information about the three companies.

Table 23: Axis's distributors in India (Interview 2).
---

	ADI (Honeywell group)	Anixter	Ingram Micro
Revenue in India	USD 19 million	USD 15 millions	USD 2.1 billion
2012			
Global head office;	USA; Gurgaon, Delhi India	USA; Bangalore	USA; Mumbai India
Head office in India		India	
Major focus	Physical Security, Life	IT Networking	IT Products (Storage &
	Safety , AIDC	products (Cabling,	Peripherals), Telecom,
	-	Racks), Security	Security, Services
Started working	2011	2008	2009
with Axis			

#### 5.5.3 Two types of customers gives two distribution flows

Axis sells products to two types of end users; regular and those with duty benefits (Interview 2). This comes from the Indian government's incentive to give some end users reduction up to 100% reduction in import duty (see section 5.4.6 Government Incentives). Approximately, 50% of Axis's sale is made to each end user type (Interview 2). In order to benefit from the reduction/elimination of import duty, the end user has to import the products into India. This results in two separate flows of products between Singapore and the end users in India, described in 5.5.3.1 and 5.5.3.2.

<sup>&</sup>lt;sup>37</sup> Described in chapter 5.4.7 Transfer Pricing.

Since the distributors need to label the products with MRP labels, time must be spent on labelling and it takes approximately one week (Interview 22). Two of the distributors said explicitly that they want Axis to do the labelling in order to reduce the lead time and to ensure that the maximum retail prices are the same for each product (Interview 22, 33).

## 5.5.3.1 Order and delivery process for regular customers

Regular end users do not have any reduction in import duty. When a system integrator gets an order from an end user, he/she sends an order to a distributor in India (Figure 47). The distributor sends an order to Axis Singapore, which sends an order to Axis Communications AB in Sweden (Interview 22, 23, 33). When Axis receives an order, a production order is released to the CLC where the order is finished (Interview 16, 17). Products are ready to be shipped, they are picked up by a logistics provider and transported to Singapore and delivered to the distributor as ExWorks Singapore (see section 5.4.1.6 Packaging and labeling), (Interview 16, 19). When the distributor has picked up the products, they are sent to a warehouse for MRP labeling, which takes a few days. It is necessary to do the labeling before the products enter the Indian custom territory (Interview 22, 33). Then, the distributor arranges the transportation of the products to India. The products are cleared, sent to the distributor's warehouse (Interview 22, 23, 33), and sold to the system integrator, and shipped to the system integrator, who installs the products at the end user's facility (Interview 35). The system integrator bills the end user; the system integrator is billed by the distributor. The distributor is billed by Axis Singapore, and Axis Singapore is billed by Axis Communications AB (Interview 22, 23, 33).

In Figure 47, the material flow is illustrated together with payment flow, order flow, production order flow, and change in ownership. The distributors keep a small amount of products in stock, which is indicated by the triangle. In most cases, the distributor does not order any products until an order is received. The payments between Axis Communications AB, Axis Singapore, and the distributors are made in USD. The payments between the distributors, the system integrators, and the end users are made in INR. Hence, it is the distributor who is taking the currency risk. No custom clearance is made in Singapore since the products are sent to and re-exported from a free trade zone. Customs clearance is illustrated with a ©.

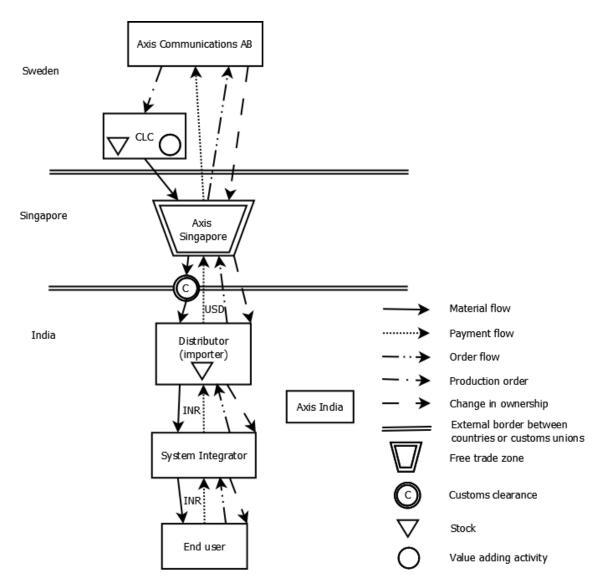


Figure 47: Order and delivery process for regular end users.

# 5.5.3.2 Order and delivery process for duty benefit customers

When the end user can benefit from a government incentive and import products to a reduced/eliminated import duty, the flow is different from the flow to regular end users (Figure 48). The initial phase is similar though; end user sends an order to a system integrator. But, the system integrator sends an order to an Indian distributor with a Singaporean establishment (Interview 22, 23, 33). The distributor sends an order to Axis Singapore, who sends the order to Axis Communications AB. In Sweden, Axis releases a production order to the CLC that configures and packs the products (Interview 16, 17). The products are sent with a logistics provider to Singapore, delivered as ExWorks Singapore (Interview 16, 19). As the

distributors only handle the financial transaction, the products are taken over by the system integrator who arranges the transportation of the products from Singapore to India (Interview 22). During the transportation to India, the products are sold to the end user with duty benefit (Interview 22). The sale of products during transportation is named high sea sale (Interview 28). High sea sale enables the system integrator organize the transport, but the end user can benefit from the reduction in import duty. The sale is made in USD and it makes the end user the importer. Even though the end user owns the products, it is the system integrator who executes the import activity through making arrangements with transportation and a broker in customs (Interview 22, 35). When the products enter the customs territory in India, they belong to the end user, and that is necessary to benefit from the reduction/elimination in import duty (Interview 22, 23, 33). The transporter ships the products to the end user's facility, where the system integrator installs the products (Interview 35). The billing is made by the system integrator to the end user; the system integrator receives a bill from the distributor, who is billed by Axis Singapore. Axis Singapore is billed by Axis Communications AB (Interview 22, 23, 33, 17).

In Figure 48, the flow of material, payments, orders, production orders, and ownership are illustrated. Parts are kept in stock in the CLC, which is illustrated with the triangle. The circle illustrates the value adding activity; configuration and packing. The products are cleared when they arrive into India, which in the figure is marked with a ©. There is no customs clearance in Singapore since it is a free trade zone.

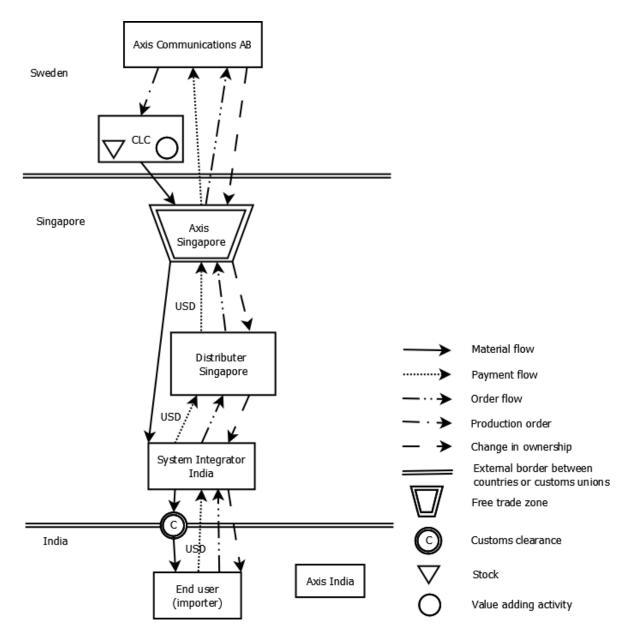


Figure 48: Order and delivery process for end users with duty benefit.

# 6 INNOVATE A SOLUTION IDEA AND DEVELOP A PROBLEM SOLVING CONSTRUCTION

In this chapter the result from the iterative process conducted in step four of the applied project process is presented. The purpose is to explain and give the result by first presenting the analysis of the collected empirical data, and then present the solution ideas that have been tested practically and refined. The chapter is structured according to the three steps; analysis and innovate solution, practical testing, and refined solution. Each of these sections is then structured according to the four research questions, starting with question one and ending with question four.

## 6.1 Analysis and Innovate Solution

In this section data is analysed and it results in the innovation of a solution idea. Both the analysis and the solution idea are presented here. This process is iterative, hence it is not only a analyse section nor only a result section.

# 6.1.1 Q1: MARKET OPPORTUNITY

Research question one was formulated: "Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?".

#### 6.1.1.1 Macro environment

India's demography indicates positive sales potential for the video surveillance industry. The difference in income levels implies there is a proportion of the people who want to be protected from property crime, which would affect the video surveillance industry positively. In addition, India is the second most populated country in the world and a very big market. At the same time, there are a large proportion of poor people who never will buy video surveillance products. The inequalities and the large market indicate increased demand for video surveillance products.

Axis has difficulties establishing a stable price list, and one reason is the unstable Indian currency that impact business and makes companies hedge for the risk and the prices has changed many times every year compared to the USD. The growth of the Indian economy (although the growth rate has decreased) is positive for Axis since it leads to more companies can afford video surveillance cameras. Moreover, the FDI in India is low. This can be seen as a negative element since Axis's offer for example target international companies with activity in India. In total, Axis is affected by the currency fluctuation to such extent that the economy can be considered not advantageous for Axis.

The political system in India is not advantageous for Axis. There are 28 states with different regulations combined with the country's laws, and naturally companies have to comply with both. This is seen as difficult and requires extensive effort from companies since the states' and the country's laws are not always aligned. In addition, the system is unstructured and problematic to work with. The widespread corruption, poor infrastructure, slow import/export processes, and difference in bound tariff rate and applied tariff rate are other reasons to why the political system in India has high barriers for business.

The cultural aspect indicates a number of challenges for Axis on the Indian market. For Indians, it is part of the culture to negotiate on price and to always contact the supplier to get a good price. The business is relation driven and it requires a lot of hours to maintain good relationships with customers and possible future customers. Axis wants to use the partner model with pre-specified discounts for repeat customers and through the model avoid spending a lot of time on negotiating. A lot of businesses in India handle corruption, which Axis is distancing itself from. Thus, there is a gap between Axis normal working procedure and the Indian business culture. This needs to be addressed by Axis in order to determine whether Axis needs to adapt to the Indian market, or if Axis should force the Indian market to adapt to Axis's partner model.

The technological aspect of the macro environment is not pointing in any specific direction. The infrastructure is poor, but the IT infrastructure develops and cloud-based solutions are increasing. Thus, this development proceeds relatively quickly and is not an obstacle that Axis should focus on.

In the macro environment, the natural aspect, which includes government interference, is positive for Axis's sales potential. The government invests a lot of money in video surveillance, which increases the market. Also, government incentives affect Axis since approximately 50% of Axis's end users benefit from a reduction in import duty when buying Axis's products.

To conclude, there are both bright spots and difficult challenges in India. The economy, political system, and the cultural aspects affect Axis to a large extent and pose difficulties and challenges to Axis which to some extent can be influenced by the company but mainly depends on other actors. These difficulties weighs heavily compared to the beneficial aspects of the demography, technology, and natural aspects. It takes time for the demography to change and it is not possible to affect by Axis; in the short run it is a relatively static condition. The technology is not considered as a problem today and can be seen as a pre-condition that exists and will not affect further as long as the technology is available in India. Incentives from the government can possibly decrease when the development in India increases and the need for these incentives reduces.

#### 6.1.1.2 Five Forces

This section presents an analysis of competitive rivalry, the buyers' bargaining power, the threats of substitutes, and the threats of new entrants on the network video surveillance market in India<sup>38</sup>.

The competitive rivalry in India is high, with a very price sensitive market and a lot of low price products. Some of the interviewees stated that some of Axis's competitors write wide specifications on which features their products have, independent of the quality of the feature. The end users seem to accept this. Axis always ensures high quality of each feature before it is written in a specification of a product. Hence, there may be a gap between the competitors which makes the competitive rivalry even stronger.

The buyers' bargaining power is strong, as there are many companies on the Indian market offering video surveillance products. Since there is a strong Indian culture of negotiating, the customers utilize both the opportunity of comparing products from different brands and negotiating to get better a better price, and to let suppliers bid against each other. For example, Hikvision is a low-end brand offering cheap cameras and during Q4 in 2013 the company became the largest player on the Indian video surveillance market. Hence, there is a big market for products with low prices.

The threat of substitute is high, but decreasing since the video surveillance market grows. Indian people are not convinced that video surveillance cameras can replace guards, since they feel more secure with guards than with cameras. Also, labor is quite cheap in India, which indicates that many people prefer hiring people than spending a large amount of money on video cameras. Analogue video surveillance cameras can also be considered as a threat. The market is developing towards selling more IP products, but it is still a small proportion of the entire market. Thus, the possibility of an end user selecting an analogue product is large, but this will probably change in some years.

Finally, the threat of new entrants is considered high since it is easy for overseas companies to start selling video surveillance cameras in India and one of the interviewees said that new brands emerges quickly.

To conclude, all four forces discussed in this section are strong. Thus, the competition on the Indian video surveillance market is high.

 $<sup>^{38}</sup>$  This section presents the five forces analyze, limited to four of the forces since the project does not include sourcing and supply of components.

#### 6.1.1.3 Sales Potential

The market research reports over the Indian video surveillance market and the CCTV market that has been presented all indicates a growth of the market during the coming years (Table 24). The forecasted growth rate is somewhat different among the reports but all showing a yearly growth rate of 20-30 % for both analogue and digital video. When focusing on only the IP cameras the growth rate forecasted by 6Wreserach (2012) indicates a faster growth at a CAGR (Compounded annual growth rate) of nearly 42 %. The conclusions supports that the market is growing a lot, which indicates a big potential for companies in the video surveillance industry.

According to the theory<sup>39</sup> the sales potential can be calculated by multiplying the estimated potential of the market by some market share figure. The result is indicating potential share that could be achieved under optimal conditions. The estimated potential of the video surveillance market volume in 2016 is USD 953 million according to 6Wreserach, hence this is for both analogue and IP cameras. The market share figure given by Axis India indicates that they have around 8 % of the network video surveillance industry in India. Let's assume that the turnover for Axis India during 2013 is USD X million. The calculation of the turnover in 2016 according to the estimated market growth by 6Wreserach would then be:

$$X \times (1,4178 \times 1,4178 \times 1,4178) = USD X \times (285\%)$$

The calculated sales potential would indicate a growth of 285 % from 2013-2016. Although, as mention in the theory this estimated sales potential is under optimal conditions.

The competition on the market is tough, as there are a large number of players and the barriers to entry are low. Therefore Axis can expect hard competition during the coming years and lot of effort has to be made by Axis to follow the market growth, and keep their market share. In order to succeed in India one has to adapt to the Indian culture and way of living or try to educate specific business partners in doing business differently. Either way that is selected, a foreign company must work hard to succeed on the Indian market. To conclude indicators lowering the sales potential for Axis in India are:

- The competition
- The demand for low cost cameras
- The relationship driven market

<sup>&</sup>lt;sup>39</sup> Presented in section 3.3.1 Potential and Forecasting

Table 24: Estimated growth for the Indian market (RNCOS E-Services Private Limited, 2012; 6W Research, 2012; Kuick Research, 2013).

Research company	Year	Market	Growth
6W Research (2012)	2011-2016	video surveillance market	CAGR of 32,49 % (reaching 953 million USD in 2016)
6W Research (2012)	2011-2016	IP based surveillance systems	CAGR of 41.78 %
Kuick Research (2013)	-	CCTV surveillance market	20 % per year
RNCOS E-Services Private Limited (2012)	2010-2015	Indian CCTV Market	CAGR of 27 %

# 6.1.1.4 Innovate solution

The analysis of the collected data through the models Five Forces, Macron environment, and Sales Potential are concluded in an attractiveness table (Table 25). To conclude, the answer to the question<sup>40</sup> is there is a positive sales potential for Axis's products.

Table 25: Attractiveness table presenting the attractiveness of Axis sales potential in India

Analysis model	<b>Negative</b>		Neutral		<b>Positive</b>	N/A
Macro environment		2				
Five forces		2				
Sales potential for Axis				4		

The values in the attractiveness table are concluded based on the above analysis of each model. The four forces discussed are all strong and indicates that the competition on the video surveillance market in India is high. This indicates negative sales potential for Axis and therefore is the attractiveness value set to two. Regarding the Macron environment all the presented forces are somewhat affecting Axis in India. The forces indicating a positive sales potential for Axis are demography, technology, and natural aspects while the forces indicating a negative sales potential are economy, political system, and the cultural aspects. We assess the negative forces to be stronger than the positive ones and therefore the attractiveness value are two. Finally, market research companies estimating<sup>41</sup> sales potential figures of the video surveillance market in India of 20-30% annually growth reaching USD 953 million in

 $<sup>^{40}</sup>$  Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016 indicate a positive or negative sales potential?

<sup>&</sup>lt;sup>41</sup> See section 5.3.3.2 Growth trends

2016. Since the numbers are even higher for the IP camera market this indicates a potential for Axis in India. The calculated sales potential under optimal circumstances definitely indicates positive sales potential. Therefore, the attractiveness value for the Sales Potential is set to four. The reason why it is not set to five is the hard competition on the market.

To follow the market's estimated growth a lot of effort and resources are needed. It is important to build a strong brand and get market shares in order to attract the end users that demand known brands. In order for Axis to follow the market growth and be competitive, they need to discuss how to adjust their corporate strategy and products to fit the price focused Indian market with a culture different from the mature markets Axis is market leader on.

The solution idea is that the sales potential is positive for Axis's products on the Indian market for video surveillance for the years 2014-2016. Although, Axis will need to invest a lot of effort and resources to follow the markets estimated growth.

## 6.1.2 Q2: REQUIRED LOCAL ADJUSTMENTS

Research question two is formulated: "Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?".

## 6.1.2.1 Requirements and requests

Distributors are today handling the Indian requirement of labeling the products with MRP labels. But it could be of interest for Axis to do this, since it could simplify the process of having a unified MRP on each article.

The Indian end users have many requests and high requirements (Table 26). They want low price, warranty that reflects the product's quality, short lead time, good quality, and many features on the camera, and a good brand. The price is considered to be the most important aspect for most of the end users. As described earlier (see 5.3.2 Customers) the low-end segment is very large and purchase a video surveillance camera almost only based on price. Hence, the requirements on quality etc. are of less importance to them. The high-end segment is willing to pay for the quality that Axis's offer, but there are several competitors. To reach the price sensitive end users, Axis would have to offer products with lower price. This may be of interest since the Indian market is very large in the low-end segment. However, Axis should consider brand erosion if they sell the cheapest products.

Table 26: List of requirements on the Indian market.

Requirement	Comments by interviews	Comments by Axis
MRP label	The distributor labels the products today in order to not pay special additional duty.	
Requests		
Price	All distributors and system integrators except one states that Axis has a too high price. The end users in India are not willing to pay as much as Axis expects.	Axis is a high-end brand and will never compete on price.
Warranty	Axis has 1-2 years shorter warranty compared	That is only true for the
	to competitors.	M-series.
Lead time	Indian end users want short lead time, 4-6	4-6 weeks.
	weeks is too long.	
Quality	End users want good quality.	Very good quality.
Features	End users want many features	Axis has a broad product range with a lot of features.
Brand	Indian end users want to purchase a product from a good brand.	Axis is a good brand.

#### 6.1.2.2 Innovate solution

The requirements and requests of the Indian market are not fully matched by Axis offer, but there is a demand. For Axis it might be of interest to introduce a product that has a better fit towards the requirements and requests from the market, implementing the following changes to today's offer.

# Requirement:

Take over the activity of placing MRP-labels on the product before they reach the Indian border. This would be beneficial for the products lead time to the end user, since some of the distributors are devoting days on this activity. It would also be beneficial since Axis then together with the distributors have to decide on a MRP for the products, as trust would grow if Axis products will have the same communicated MRP.

## Requests:

The warranty on Axis products has to be extended to match the competitors on the Indian market. Recently the option of extending the warranty for the products was added. This might be enough for now but it would be even more beneficial to actually extend the basic warranty.

Axis ought to continue to be the market leader in network video globally since the Indian end users are interested in buying well-known brands. Axis brand is indicating good quality which is important in India.

The lead time, from order until delivery to the end user should be shortened. This would be beneficial for Axis since they then can be involved in bids where the end users have demand for fast delivery. It would also be positive for currency fluctuation. This is not the most prioritized change but is worth considering.

Continue to have a broad range of products with many features and new technology. Indian customers favor many alternatives to choose from and are attracted to brands with the latest technology. Even if the customer is not purchasing those new products in the end they are still buying from that brand.

Introduce a small range of low-priced cameras on the Indian market. The cameras should not be of lower quality since quality is one of Axis corner stones. Instead the cameras should have specific features and components that both match the demand from the Indian market and a low price. Here further investigation is needed to conclude what features and components should be mixed in order to customize cameras for India that can match many technical specifications.

### 6.1.3 Q3: Trade Agreements and Government Incentives

Research question three investigates which, if any, trade agreements or other governmental incentives in India could Axis benefit from.

### 6.1.3.1 Trade Agreements

The only trade agreement of interest for Axis was the Asia-Pacific Trade Agreement APTA. However, the only HS code included was 900211, which Axis barely uses since the camera lenses are attached to the cameras already when Axis sources the products from the suppliers. Thus, to use this trade agreement, Axis would have to redesign the sourcing and production process. In addition, Axis does not consider trade agreements as an important aspect when designing a distribution flow<sup>42</sup>. This makes the impact of this trade agreement limited and it should not be given much attention.

#### 6.1.3.2 Government Incentives

The government incentive that is interesting for Axis India is the duty reductions that some of the end users benefit from. This affects the extent to which Axis should import products into

<sup>&</sup>lt;sup>42</sup> See section 5.4.5 Trade Agreements.

India. That is, Axis has to let end users with reduction/elimination in import duty keep the opportunity to import products themselves.

### 6.1.3.3 Innovate solution

To conclude, there is no trade agreement that is of interest for Axis, and there is no government incentive that Axis could benefit from, except from the end users with duty benefits.

### 6.1.4 Q4: Own vs. Distributors Import

Research question four was formulated "Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?".

# 6.1.4.1 Criteria for scenario evaluation

To evaluate the different scenarios, there must be evaluation criteria in order to evaluate and analyze the collected data. Thirteen important evaluation aspects were identified.

Table 27: Criteria for scenario evaluation

No	Evaluation criteria	Aspect for evaluation
1	Axis values, strategy, and goals	Fit with the scenario
2	Partner program	Discuss how it is affected
3	Possibility of creating a price list	Is it less, equal or more possible than today
4	Back-end rebate	Applicability of back-end rebate
5	Scalability	Defined as scalability of the products distribution out to the end user, in terms of how many transaction points there are
6	Currency fluctuation	Party exposed to the currency fluctuation
7	Applicable for different end user type	Normal end users or end users with benefits
8	Import duty	Name of import duty + percentage
9	Time for clearance	As precise as possible out of collected data
10	Transfer pricing	Applicable or not
11	Cost of freight and insurance, cost of broker, and cost of administration	Party taking each cost
12	Export possibility (products that are not sold in India – not RMA flow)	Not possible, duty affected, duty not affected
13	Lead time	Shorter, similar or longer than today

The reason to why these thirteen criteria have been identified will be explained further. Criteria one to five are selected based on the company Axis. Since the distribution flow will

have different advantages or disadvantages depending on whose perspective are in focus it is important to consider what is best for Axis, e.g. concerning their corporate strategy and business model. Criteria two to five are covering partner model aspects. Criteria number six, currency fluctuation, are related to the economic force in the macro environment. During many of the interviews held in India, the currency fluctuation was targeted as a major problem for doing business and is a big problem in India. Therefore, the fluctuating currency has been identified as an important criterion. The identified situation with two types of end users with different custom duty regulations has a major impact on Axis business in India. This circumstance was not known earlier at Axis in Sweden, but during the interviews in India this was identified as important to consider. Since the two types of end users currently have different distribution flows it is important to determine what scenario fit which type of end user (criteria seven). Criteria eight is of interest since it will be part of the distribution design. Furthermore, as the import duty will affect the landed cost of the products, it is important to consider if there are any differences. The time for clearance (criteria nine) was identified as important since the interviews show that the type of port and the way of taking in products will have different time for clearance. Criterion ten, transfer pricing, is of interest to know whether it will be applicable in the scenario and thereby have higher or lower value that the duty is applied on. In the scenarios it is of interest to know what party is taking different costs. Therefore criterion eleven should show how the cost will be divided in the chain. The economic flow will be determined in the scenarios and hence it is of interest to understand who owns the products throughout the flow. Criterion twelve, export possibilities, determines if products can be exported. If products are taken in to the Indian market and later one realizes that those products will not sell on the market, then the products have to be exported out of India and imported to another market to be sold there. The last criterion, thirteen, lead time, has been identified through the interviews in India as important for the system integrators. They indicate that a short lead time will be beneficial for doing business in India and help Axis win more projects. Thus, it is important that the future lead time is no longer than the lead time is today.

The criteria are ordered to follow the research framework (Figure 49). The criteria start with the ground segment that is corporate strategy, covering criteria one to five. The next segment is the macro environment, covering criteria six. There are no criteria from section three in the pyramid (sales potential) as the distribution flows are not valuated according to the sales volume in this report. The fourth segment in the pyramid is trade, covering criteria seven to twelve. The last criterion lead time, number thirteen, is covered in the pyramids top section that is distribution flow.

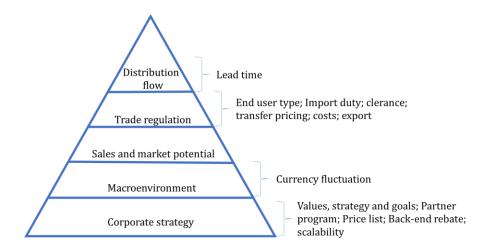


Figure 49: The criteria for evaluation of the scenarios connected to the Pyramid model.

### 6.1.4.2 Analysis of Each Scenario

In Chapter 1 Introduction, a matrix was presented describing possible scenarios for importing Axis's products into India. The matrix (Figure 50) has been extended with additional scenarios which have evolved from the data collection. For example, there are free trade warehousing zones and bonded warehouses available in India which could be of interest for Axis. Evaluated scenarios include both today's distribution flow and scenarios that were developed from the data collection. In the matrix, 12 alternatives can be seen. However, several of them are similar and not all were evaluated.

	Production i	n India		N/A	N/A	N/A
alue	O	Configuration in India, production outside India		N/A	N/A	N/A
of major value ity	Production and import		Scenario 1	Scenario 4	Scenario 7	Scenario 10
mə	configuration	FTWZ	Scenario 2	Scenario 5	Scenario 8	Scenario 11
ation of activity	outside India	Bonded WH	Scenario 3	Scenario 6	Scenario 9	Scenario 12
Localization o adding activii	adding ac		Axis imports into India	Distributor imports into India	System integrator imports into India	End user imports into India
	(Legal) organization responsible for import into India					

Figure 50: The matrix describes possible scenarios for importing Axis's products into India.

Scenario 1 illustrates common import handled by Axis. In this scenario, Axis's products would be sold to the distributor within India. In scenario 2, Axis would send the products to a free trade warehousing zone (FTWZ) in India, and sell them to a distributor in the free trade

warehousing zone. Then, the distributor could import the products into India, or sell the products to the system integrator. The system integrator could import the products into India or sell them to the end user in the free trade zone, which would make the end user importer of the products into India. Scenario 3 is a similar process but instead of using an FTWZ, a bonded warehouse is used. Several of the scenarios are similar and some of the scenarios would not affect Axis, nor can Axis affect the import process in some scenarios. That is, if Axis sells the products in the FTWZ, Axis does not impact the distributor's decision on selling inside the FTWZ or importing into India. Because of this reason, scenarios 5-9 were excluded. Scenario 4 is the current process and was of interest to evaluate in order to compare with the alternatives. It was of interest to evaluate the scenarios where the end user imports the products from a FTWZ or a bonded warehouse, since some of the end users have reduction/elimination of import duty. It is important for Axis to ensure that end users with reduced import duty can import Axis's products instead of purchasing from a system integrator when the product already is cleared in customs. Therefore, scenarios 10-12 are evaluated, and they are only applied for end users with reduction in import duty.

- Scenario 1: Axis imports the products into India and sells the products to the distributors in India
- Scenario 2: Axis imports the products into India via a FTWZ. The products are sold to the distributors within India
- Scenario 3: Axis imports the products into India via a bonded warehouse. The products are sold to the distributors within India
- Scenario 4: Axis sells the products to the distributors outside India, and the distributors handle the import into India
- Scenario 10: Axis sells the products outside India to the distributors. The distributors sell the products to the system integrators, and the end users purchase the products before they enter India. Thus, the end users are importers in this scenario
- Scenario 11: Axis ships the products to a FTWZ in India, where the products are sold to a distributor, and then they are sold to a system integrator. Finally, the products are sold to end users with reductions in duty benefit, who imports the products into India
- Scenario 12: This scenario is similar to scenario 11, but instead of using a free trade zone, a bonded warehouse is used

In the following sections, each scenario is evaluated according to the criteria identified above.

#### 6.1.4.2.1 Scenario 1

In this scenario (Figure 51), Axis imports the products into India and sells the products to the distributors in India, who sell the product to the system integrators. Finally, the system integrators sell the products to the end users.

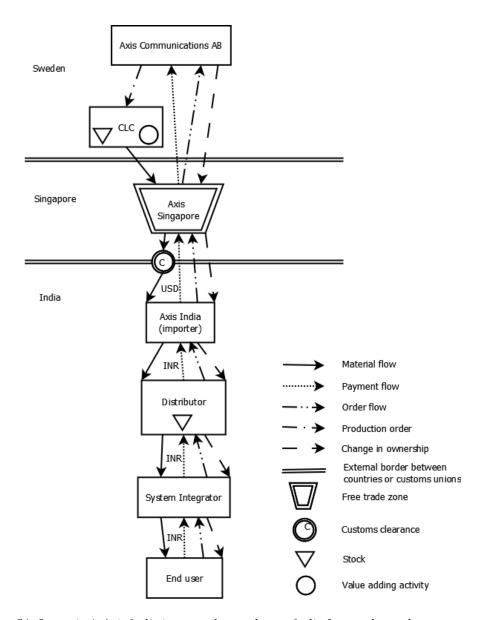


Figure 51: Scenario 1, Axis India imports the product to India for regular end users

### 1) Axis values, strategy, and goals

If Axis starts importing into India, this would gain Axis cooperation with the partners showing Axis is present in India. The long-term loyal relationships would probably be stronger, which is in line with Axis's strategy. Nothing could be said about Axis's opportunity to increase sales in India, but it would increase the opportunity of creating a price list (read more below), which in turn could increase Axis's sales and enable Axis to reach the goal about global expansion and presence on emerging markets.

### 2) Partner program

The partner program is difficult to apply on a project-driven market. But, if Axis starts importing into India, it would be possible to establish a price list (read more below). With a price list, Axis would have one of the most important pre-conditions in place to create a well-functioning partner program through enable the customers to know what price they can expect on Axis's products.

# 3) Possibility of creating a price list

If Axis imports the products, the company would have a larger opportunity than today of creating a price list. This is due to Axis's knowing the cost of import duty, transportation, insurance and any other cost that applies when importing. Thus, the cost of the product when it is sold on the Indian market is known. Axis would sell in INR, which means that Axis takes the currency risk and the price list would not be replaced by a new price list as often as it is today. Axis has the stability and resources to handle the currency risk.

#### 4) Back-end rebate

When the partner program is working, it is also possible to apply back-end rebates. If Axis imports the products, import duty does not need to be paid on the part of the price that is given as a rebate (back-end rebate) in a later stage.

# 5) Scalability

The scalability will remain unchanged since both intermediaries, the distributors and system integrators, are kept.

### 6) Currency fluctuation

Axis would be exposed to the currency risk since the sale in India would be made in INR. But, as mentioned above, the company does not considered it as a problem.

### 7) Applicable for what end user type

When it comes to the end users, this flow would only be applicable on the regular customers. Customers with reductions in import duty would most likely select another supplier if they cannot benefit from the cost reduction.

#### 8) Lead time

Since the volumes that Axis would import is not very big, there is a risk of increased lead time caused by lower frequency of shipments into India. The distributors handling the shipments

into India today ship Axis's products together with other products and create larger imported volumes accordingly.

9) Import duty

Total customs duty: 28.852%.

10) Time for clearance

The time for clearance would probably be similar as it is today.

11) Transfer pricing

Axis would handle transfer pricing since Axis Communications AB would sell to Axis India.

12) Cost of freight and insurance, cost of broker, and cost of administration

If Axis starts importing, Axis would take these costs.

13) Export possibility (products that are not sold in India – not RMA flow)

Axis would have all documentation from the import, and that makes it possible for Axis to export products. However, the total amount paid as import duty when the products are imported will not be paid back by customs.

#### 6.1.4.2.2 Scenario 2 and 3

Scenario 2 and 3 are similar in several ways. Therefore, they are presented together. Where the scenarios differ, it is clearly stated. In these scenarios, Axis imports the products into India via a FTWZ/bonded warehouse. The products are sold to the distributors within India, and the distributors sell the product to the system integrators in India. Finally, the products are sold to the Indian end users. Scenario 2 is illustrated in Figure 52, and scenario 3 is illustrated in Figure 53.

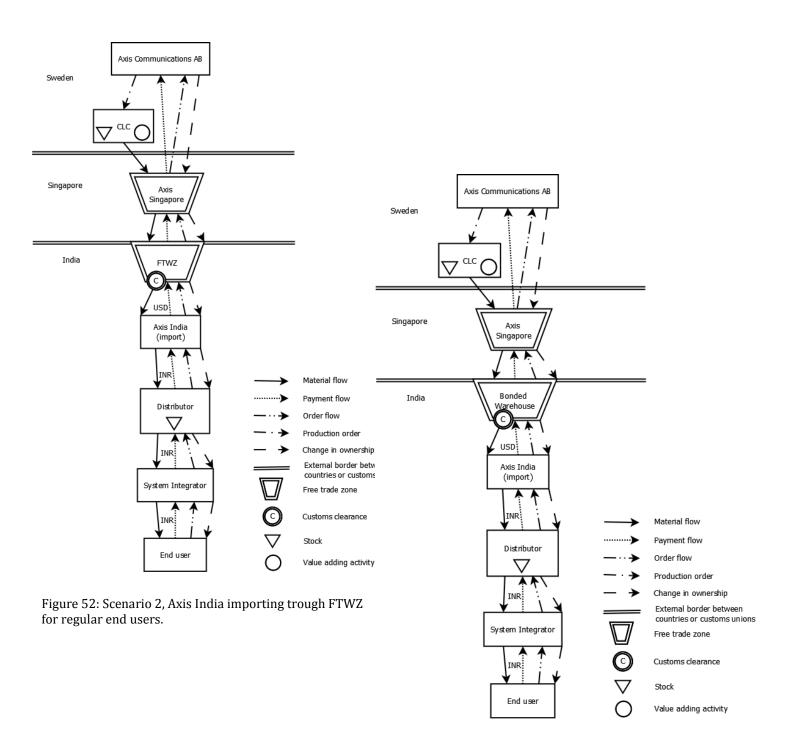


Figure 53: Scenario 3, Axis India importing trough bonded warehouse for regular end users.

1) Axis values, strategy, and goals

The result would be identic with scenario 1.

2) Partner program

The result would be identic with scenario 1.

3) Possibility of creating a price list

The result would be identic with scenario 1.

4) Back-end rebate

The result would be identic with scenario 1.

5) Scalability

The result would be identic with scenario 1.

6) Currency fluctuation

The result would be identic with scenario 1.

7) Applicable for what end user type

The result would be identic with scenario 1.

8) Lead time

Since the volumes that Axis would import is not very big, there is a risk of increased lead time caused by lower frequency of shipments into India. The distributors handling the shipments into India today ship Axis's products together with other products and create larger imported volumes accordingly.

If Axis would keep products in stock in the FTWZ, it may be possible to offer a shorter lead time. A benefit with FTWZ is that products can be shipped out from the FTWZ to another country without paying import duty to Indian customs. Thus, this can be made if the products cannot be sold on the Indian market or if the products are more needed on a nearby market. Another point of view is that it may take time to transport the products from port to the FTWZ. There are no clear data on this.

If products are kept in a bonded warehouse, the lead time is supposed to be longer compared to import from a FTWZ since the bonded warehouses are governed by the authorities, which are slow and bureaucratic.

### 9) Import duty

The result would be identic with scenario 1.

### 10) Time for clearance

According to interviews, the clearance process in a FTWZ may be quicker compared to regular customs clearance in India. Therefore, the time for clearance could be shorter.

The clearance process in a bonded warehouse is similar to regular customs clearance in India. It is likely to take longer time than clearance in a FTWZ.

#### 11) Transfer pricing

The result would be identic with scenario 1.

12) Cost of freight and insurance, cost of broker, and cost of administration

If Axis starts importing, Axis would take these costs. The cost of storing products in a FTWZ is higher compared to storage outside a FTWZ. There are no clear data on the cost of storing products in a bonded warehouse.

13) Export possibility (products that are not sold in India – not RMA flow)

Axis would have all documentation from the import, and that makes it possible for Axis to export products. However, the import duty paid when the products are imported will not be paid back by customs if the products are exported. This process is considered as complicated and should be avoided if it is not necessary to export. As long as the products have not left the FTWZ or bonded warehouse, it is possible to export without paying customs duty.

# 6.1.4.2.3 Scenario 4

In this scenario (Figure 54), Axis sells the products to the distributors outside India, the distributors handle the import and sell the products to the Indian system integrators in India. The products are finally sold to the Indian end users. This is today's scenario for regular end users.

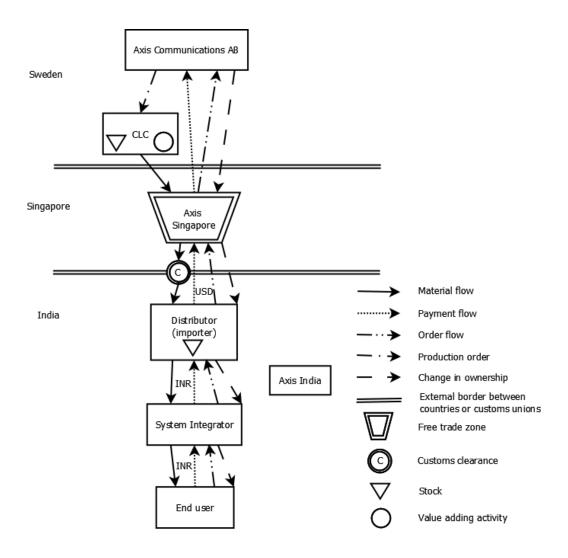


Figure 54: Scenario 4, Distributors import products to India for regular end users.

### 1) Axis values, strategy, and goals

One of the corner stones in Axis is the partner program, which is seen as one of the success factors. But, in this scenario, it is difficult to apply the partner program since Axis does not handle the import and can therefore not establish a price list (read more below) and it is therefore difficult to take advantage of it. This is seen as a major shortage for Axis on the Indian market. Also, one of Axis's values is Dare to win, which means that Axis should take the chance when it is possible. This could be interpreted as Axis should be more active in India to gain more business. This may be difficult though when one of the corner stones – the partner program – does not work efficiently.

### 2) Partner program

Axis has difficulties in establishing the partner program. To a large extent, this depends on the problem that Axis does not have the possibility to creating a price list, and that it is a project-driven market. Read more about the difficulty to establish a price list below. With a price list, Axis would have one of the most important pre-conditions in place to create a well-functioning partner program through enable the customers to know what price they can expect on Axis's products.

### 3) Possibility of creating a price list

In this scenario, it is difficult for Axis to create a price list. Today, Axis sells the products in USD, which makes the distributors convert the prices into INR. The distributors apply different conversion rates and have different pricing strategies. Hence, Axis does not know what the cost of the product is when it reaches India and it is difficult for Axis to create a sustainable price list.

### 4) Back-end rebate

The back-end rebate is difficult to apply since Axis does not know what the actual price of the products should be when they are sold to the end users. That is, the price list is difficult to establish and this makes it difficult to handle the back-end rebates and make them efficient. Also, customs duty is paid on the full price.

#### 5) Scalability

The result would be identic with scenario 1, 2, and 3.

### 6) Currency fluctuation

The result would be identic with scenario 1, 2, and 3.

#### 7) Applicable for what end user type

The result would be identic with scenario 1, 2, and 3.

#### 8) Lead time

The result would be identic with scenario 1.

### 9) Import duty

The result would be identic with scenario 1, 2, and 3.

### 10) Time for clearance

The time for clearance would be the same as today.

#### 11) Transfer pricing

Axis would not handle transfer pricing.

12) Cost of freight and insurance, cost of broker, and cost of administration

Axis would not take these costs.

13) Export possibility (products that are not sold in India – not RMA flow)

Axis would not have the documentation from the import, and that makes it not possible for Axis to export products.

#### 6.1.4.2.4 Scenario 10

In this scenario (Figure 55), Axis sells the products outside India to the distributors. The distributors sell the products to the system integrators, and the end users purchase the products before they enter India. Thus, the end users are importers in this scenario. This scenario is used today for the end users with reductions/eliminations in customs duty.

# 1) Axis values, strategy, and goals

The result would be similar to scenario 4, but there may be an opportunity to create a price list for the end users (read more below) which would reinforce the values, strategy, and goals.

#### 2) Partner program

If Axis investigates the opportunity to apply a pricelist in USD for the end users with reduction/elimination in customs duty (read more below), and can apply it successfully, there may be an opportunity of getting the partner program implemented completely.

### 3) Possibility of creating a price list

It is difficult to establish a price list in INR, but since these end users purchase in USD before customs duty is paid, it may not be very difficult to create a price list in USD where the prices excludes customs duty.

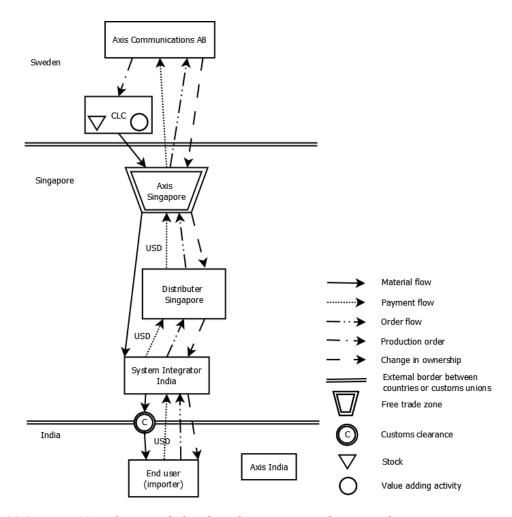


Figure 55: Scenario 10, End user with duty benefits imports products to India

# 4) Back-end rebate

The back-end rebate should be possible to apply since no duty is paid before the end user has paid for the product. Hence, the import duty should be paid on the real price, excluding the amount that is paid back as a back-end rebate. If Axis gets the partner program to work efficiently, the back-end rebate will work efficiently as a result of it.

# 5) Scalability

The result would be identic to scenario 1, 2, 3, and 4.

### 6) Currency fluctuation

Axis, distributors, and system integrators trade in USD. The end users purchase the products in USD in order to benefit from the reduction/elimination in import duty. This makes the end user exposed to the currency fluctuation.

### 7) Applicable for what end user type

When it comes to the end users, this flow would only be applicable on the end user with duty benefits. End users with no reduction/elimination in import duty would purchase the products from the system integrators within India.

#### 8) Lead time

The lead time would be the same as today. Approximately 4-6 weeks. The shipments from Singapore to India are made separately for each order, so there is no waiting time to fill for example a container.

### 9) Import duty

The import duty depends on the end user's reduction/elimination of import duty.

### 10) Time for clearance

There are no exact data of this from the interviews. It is likely that it depends on the situation.

# 11) Transfer pricing

The result would be identic to scenario 4.

12) Cost of freight and insurance, cost of broker, and cost of administration

The result would be identic to scenario 4.

### 13) Export possibility

The result would be identic to scenario 4.

### 6.1.4.2.5 Scenario 11 and 12

In these scenarios, Axis ships the products to a FTWZ (Figure 56)/bonded warehouse (Figure 57) in India, where the products are sold to a distributor, and then they are sold to a system integrator. Finally, the products are sold to end users with reduction/elimination in duty benefit, who imports the products into India.

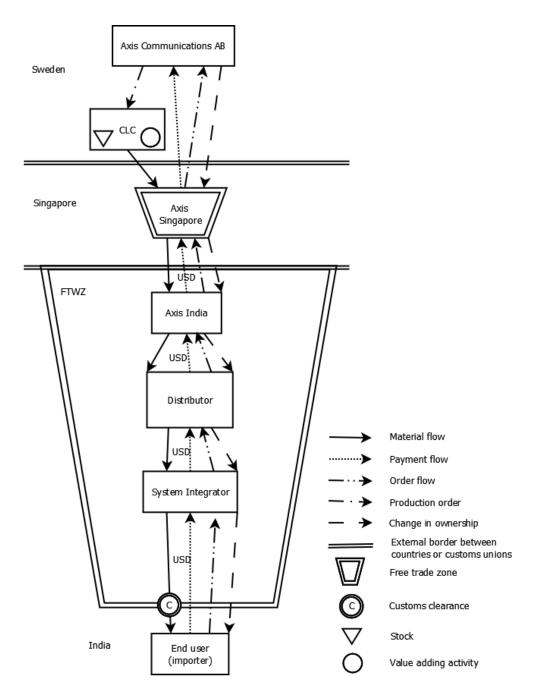


Figure 56: Scenario 11, end user with duty benefits import trough a FTWZ.

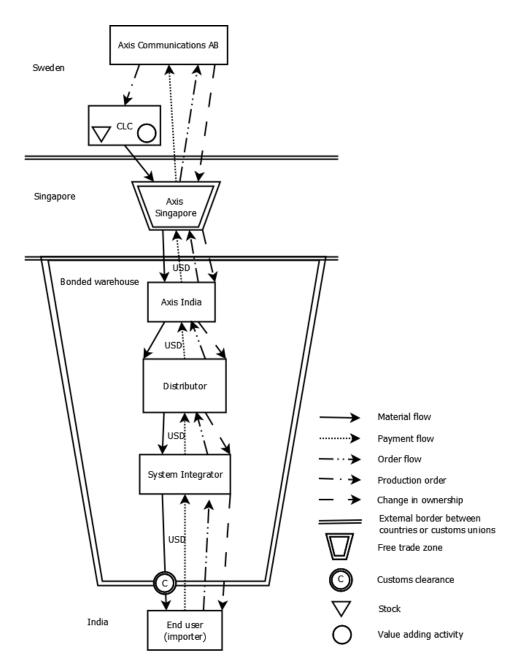


Figure 57: Scenario 12, end user with duty benefits import trough a bonded warehouse.

# 1) Axis values, strategy, and goals

The partner model is applied but it does not have any large part in this scenario. Axis cannot affect where the sale is made since most important is to let the end users purchase outside India to let them benefit from their reduction/elimination in import duty.

### 2) Partner program

The partner program should be possible to apply since it should be possible to create a stable price list, read more below. To implement this scenario, the distributors and the system integrators must have an agreement with the company offering services in the FTWZ since the distributors and the system integrators would own products in the FTWZ.

### 3) Possibility of creating a price list

In this scenario, it would be possible to establish a price list. It would be in USD since the sale to the end user is in USD. The prices would include transportation to the FTWZ/bonded warehouse in India, but import duty would be excluded since it depends on each end user.

4) Back-end rebate

The result would be identic with scenario 10.

5) Scalability

The result would be identic with scenario 1-4, and 10.

6) Currency fluctuation

The result would be identic with scenario 10.

7) Applicable for what end user type

The result would be identic with scenario 10.

8) Lead time

The lead time would be the same as today. Approximately 4-6 weeks. The shipments from Singapore to India are made separately for each order, so there is no waiting time to fill for example a container. It would be possible to offer shorter lead time if any actor keeps stock of products within the FTWZ.

9) Import duty

The result would be identic with scenario 10.

10) Time for clearance

The result would be identic with scenario 10.

### 11) Transfer pricing

The result would be identic with scenario 4 and 8.

12) Cost of freight and insurance, cost of broker, and cost of administration

Axis would take the cost of freight and insurance until the products are delivered to the FTWZ. The end users would pay the cost of broker. Cost of administration is paid by all parties involved.

## 13) Export possibility

The result would be identic with scenario 4 and 10.

#### 6.1.4.2.6 Other scenario

In addition to the scenarios above, it could be of interest to examine a scenario where the distributors are excluded. That would result in Axis selling the products directly to the system integrators, who would sell the products to the end users. However, the partner model, which includes both distributors and system integrators, is seen as one of Axis's competitive advantages and should therefore always be applied. The model is seen as a pre-condition to create run-rate, which Axis strives to increase in India. Due to these arguments, this scenario was not evaluated further.

#### 6.1.4.3 Innovate solution

The solution idea to research question four<sup>43</sup> is presented by the identified advantages.

### <u>Distributors continue handling the import (scenario 4)</u>

### Advantages:

- The distribution of products in to India is not requiring a lot of effort from Axis
- The distributors in India have an import process that is up and running. Hence, they have a working set-up, knowledge and contacts to proceed with the customs in India
- The distributors in India is taking the currency fluctuation and costs for transport, insurance and import

# Disadvantages:

The back-end rebates are not applicable due to the import paid on the rebate value

 $<sup>^{43}</sup>$  Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

- It is hard to set a corrects pricelist with Manufacturer's suggested retail price (MSRP), since Axis does not know the landed cost of the products because the distributors are taking the risk and setting the currency exchange rate
- The partner program has not the right pre-conditions to be fully implemented as the set-up on the mature markets

#### Axis is the importer of the products to the Indian market (scenario 1-3)

### Advantages:

- It is possible to set a recommended pricelist out of the MSRP, since the landed costs are known
- Back-end rebates are applicable
- Axis's products will have a unified MSRP on the market and not three different MRP labels as today, which will create more trust in Axis's brand
- Export is possible since Axis will own the import documents

#### Disadvantages:

- The initial process of setting up the import process will be costly and energy consuming
- Axis does not have scale advantages in terms of volume to create contracts with transporter and broker for custom clearance
- The amount of effort needed is not corresponding to the volumes that is in focus for import, hence the profits are currently not that big
- Axis will take the risk of currency fluctuation

To conclude the solution idea, Axis is not starting import to India. Hence, the distributors continue import like they do today. This means that the solution idea is scenario 4 in combination with scenario 10 where end users with duty reduction import for themselves, (Table 28). As a conclusion from the analysis having Axis as the importer for the distribution of products for the end users with duty benefits is not an option. If Axis would import those products the end user with benefit will have to pay the duty cost or Axis have to take the cost internally. Therefore, it is not an alternative. It is of interest to continue to have two different distribution flows, one for each type of end user. The volume that is effective for each flow are today are today relatively small. This is the volume that is interesting for Axis when considering import to India, and hence the volumes are very low. The dilemma is conferring to the dilemma of "which came first; the chicken or the egg?" – If Axis should invest in India first and then let the volumes go up or if it is better to wait for the volumes and then invest. Likewise, in Axis's corporate strategy the growth target for emerging markets is an important

part. In line with this, Axis has a big focus on the other BRIC countries, especially China at the moment. Also Brazil is in focus due to the import activities that have been implemented there and Russia due to improvements to the import activities there. In the analysis of the first research question it is determined that a lot of effort is needed in order to be successful on the Indian market.

Table 28: Conclusion of the Solution idea for research question four.

	Configuration in India, production outside India Production and configuration import			N/A	N/A	N/A
ıe				N/A	N/A	N/A
ır valı			Scenario 1	Scenario 4	Scenario 7	Scenario 10
i majo ,	outside India	FTWZ	Scenario 2	Scenario 5	Scenario 8	Scenario 11
tion of ctivity		Bonded WH	Scenario 3	Scenario 6	Scenario 9	Scenario 12
Localization of major value adding activity			Axis imports into India	Distributor imports into India	System integrator imports into India	End user imports into India
	(Legal) organization responsible for import into India					

It must also be taken into consideration that import is not the only way to get higher volumes on the Indian market. As of research question one it is determined that the market for network video surveillance will grow and hence Axis India will grow as well if right effort is specified. Added to this the ways of addressing this effort is not equal to start importing to India and there are other incentives that might help Axis India grow. Other ways that have been discussed during the interviews in India is to launch some low-priced products since the market is very price sensitive. As of now the market might not be ready for the very high-end products and hence it is not time to invest in the market by starting import by this time.

# 6.2 Practical testing

This section presents the results from the practical testing, that was conducted as a workshop with key persons from Axis. The intention was to have seven attendees, but only six participants were able to participate. Therefore, an additional workshop with one attendee was conducted later. The participants during the two workshops are from different functions at Axis: two from sales, one from finance, and four from operations.

The purpose of the testing was to get and compare the company's view of the collected data and the innovated solution idea. For research questions two and three the solution idea was presented and for research questions one and four the workshop's participants gave their view according to some given situations which was later compared to the solution idea (Table 29). The reason for taking the participants input without presenting the solution idea was to not influence their responses and increase free thinking. The fit between workshop input and solution idea led to refinement if needed (Figure 58).

Table 29: Type of activity for testing of the four research areas.

Type of activity	Q1	Q2	Q3	Q4
Test of data	X	X	X	X
Test of solution idea		X	X	
Test of company	X			X
input				

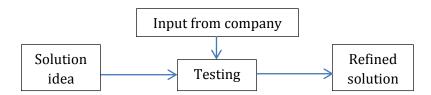


Figure 58: The solution idea was tested against the sompany view and then the refined solution was innovated.

### 6.2.1 Case: Sales and market potential

The attendees view on Axis's market opportunity in India<sup>44</sup> is summarized in Table 30.

Table 30: Answers from the workshops.

Group one			
Favor	Against	Risks	Challenges
Big market potential	Hard pressure on price	Bureaucratic	Recruit and keep employees

<sup>44</sup> The interactive session started with presentation of empirics from the project. The hard copy of information provided, is presented in appendix E. Two groups of participants got three questions each to discuss for 15 minutes. The questions were: (1) Present 5 arguments for and 5 arguments against getting more involved in India (2) Which are the biggest risks with the Indian market? (3) Which are the biggest challenges with the Indian market? The groups discussed, wrote down their answers and presented their results and the session was finished with a discussion all together.

Big growth potential	Bureaucratic	Corruption	Price pressure
Internal growth targets	Many markets in one, fragmented	Many markets, fragmented	Race of price vs. technical specification
Lowering the vulnerability	Corruption		Transfer pricing
	Recruit and keep employees		
Group 2			
Favor	Against	Risks	Challenges
Convergence is low (still)	Price focused market		
Opportunity (business)	Local culture have corruption		
Customer base already in India	Investments and efforts		
Loyal / relationship is important	Focus on India vs. other market		
Increased crime rate	Only import is not enough		
From Discussion			
Favor	Against	Risks	Challenges
Big potential	Price focused market (low price)	Corruption	Find right employees
Accessible (English speaking)	Corruption		Find a long-term strategy
Good software developers	Major part of market is government projects – not manageable market		Educate the market
Hinder competitors			
Good software developers			

During each group's presentation of their answers the following topics were raised. The biggest argument for getting more involved in India was that India is a big and growing market with big opportunity. The crime rate is increasing on the market, which is increasing the demand for surveillance. Axis as company has its internal growth strategy pointing the growth focus towards the emerging markets, signifying that Axis should get more involved.

Arguments for getting less involved in India was that the 28 different states in India indicate that the country is divided into a lot of small submarkets, which means that India cannot be handled as one unified market. In line with the market conditions the country has a high level of corruption and is highly bureaucratic. The price pressure and negotiating culture that is significant for the market is definitely directing Axis against getting more involved since Axis is delivering value and not the lowest price. A price driven market is not the best fit for Axis's

strategy. Although if Axis gets more involved in India they will get more business contacts, better relations with partners, better communication ways, and therefore a lower level of vulnerability<sup>45</sup>. There are very good software developers in India that has a technology base that would be beneficial for Axis to learn from and create a unique offer together with.

The following topics were discussed as suggestions for getting more competitive: (1) Educating the customer to understand the difference between the technical specification and the real functionality, since many customers look only at the technical specification and not the functionality in practice<sup>46</sup>. (2) Find a way to use the cameras customized for the Chinese market on the Indian market as well, since one can assume that the requirements and requests from China and India can have some similarities. Today, Axis is developing a range of products customized to fit only the Chinese market<sup>47</sup> and have Chinese as the only user language in their interface and manuals. This is not possible in India since English is their joint language, opening the risk of having cameras intended for the Indian market exported to other markets and cannibalize on existing sales there. (3) Take advantage of the experiences that the Chinese market will give over time. Arguments added was if it is worth devoting that time or if it's better to directly invest in the market. A risk with waiting is that the potential on the Indian market might be gone. (4) Develop strategy to address that India is a very price sensitive market<sup>48</sup> and the end users expectations on short delivery time. (5) Establishing a recommended pricelist in India to be able to communicate an MSRP to the market and then the relation of value vs. price for Axis products<sup>49</sup>.

It can be concluded that Axis does not have much knowledge of the Indian market today and that more information is needed to take the right decisions for the future development on the market.

<sup>&</sup>lt;sup>45</sup> The question of how big share of Axis total market that should be India was also raised. Added to this, was the question of how much effort does Axis have to dedicate the Indian market and how much focus is needed to get competitive. These questions was raised but also left with no direct answer.

<sup>&</sup>lt;sup>46</sup> Example:, the difference between an analog and an IP camera was the compared to the difference between an old thick TV and a flat screen TV; on the paper both objects are a TV but when watching TV-programs the two objects will give different experiences.

 $<sup>^{47}</sup>$  It was concluded that Axis has a lot more to learn about the Chinese market since this production just started

 $<sup>^{48}</sup>$  The participants mentioned that today the prices in projects for Axis products on the Indian market compared to the Chines market are 10-15 % lower. Although, the end user price on the Indian market is not fully known by Axis today, hence this is a further research area.

<sup>&</sup>lt;sup>49</sup> Further research of interest is if India has a working e-commerce market today

#### 6.2.2 PARTNER MODEL

The results from discussions in both workshops are presented below<sup>50</sup> (Figure 59).

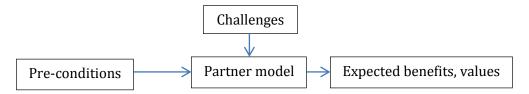


Figure 59: Test model for the partner program's fit on a given market.

Values the partner model contributes with:

- Loyalty
- Openness between the parties (better visibility and transparency)
- Increased teamwork
- Run-rate business (see 5.1.6.1 Sales in India)
- Scalability
- Few distribution points
- Availability on the market
- Knowledge spread on the market
- Credit shield
- Think big business opportunities
- Pre-request for Axis competitiveness

It was highlighted that the partner model makes it possible for Axis to build up loyalty from their partners since the partners know what to expect from Axis in terms of price and service. This forms the basis for establishing the run-rate business, which is favorable for Axis since it only requires minimal involvement of Axis. The partner model creates scalability since Axis does not need to handle a large amount of transaction points; Axis handles only three transaction points to customers in India, which are the three distributors. The distributors handles the transactions to the system integrators, which are many more, and the system integrators handles the transactions with the end users, which are many. The scalability reduces Axis's financial risk since the company only needs to ensure that the distributors function as they should. Also, it makes Axis's products available on the market through many

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<sup>&</sup>lt;sup>50</sup> The attendees were divided in two groups asked to write down what values the partner model contributes with, the pre-conditions that are required to make the partner model function properly, and challenges with the partner model. These aspects can be used to create a test model for the partner programs fit on a given market, see Figure 59. In this case the model is first constructed and then applied on the Indian market.

channels. Regarding the run-rate business it was added in the mini workshop that the majority of Axis's markets has started with project based business, and then later on the run-rate has started. It might be that this maturation will come in India if Axis helps the market to adapt.

Emphasized and prioritized pre-conditions that are required to make the partner model function properly:

- Availability of partners
- Trust
- Openness
- Knowledge
  - o about Axis's products
  - o of how the partner program works
  - o of benefits the partners can get from it
- Mutual honesty and win-win approach
- Distributors with enough size and good economy
- Local MSRP (establish a price list)

It was concluded that there must be a win-win approach to get the partner model to work and to make all committed.

Challenges with the partner model, the following were mentioned:

- Understanding of the partner model and the ability to see the full picture
- Long-term vs. short-term horizon
  - Finding the right partners
  - o Finding the right markets
  - Finding the right people to employ
- Openness
- Different business cultures and regional differences
- Margin structure of the distributors
- Cash flow for the distributors

There is a challenge to explain for the partners how they should work with and benefit from the partner model. All involved need to see the business in a long-term perspective since the model is built upon loyalty. Different business cultures make it difficult to create understanding and openness between Axis and the partners since there are different ways of looking at the model and the model's function. It is a challenge to understand the distributors' margin structure, which is important for Axis in order to know their costs and how much they

earn on the business so that Axis knows which price the system integrator can get. Aspects highlighted as very important (Figure 60):

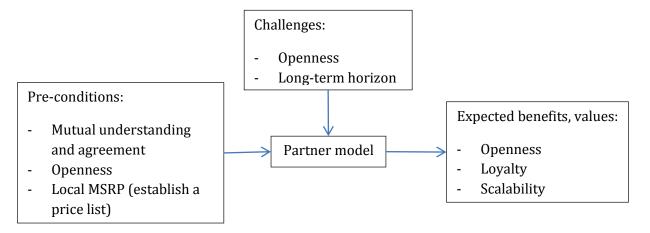


Figure 60: Important aspects from the workshop discussion.

These aspects were agreed on for the development of the cooperation. A market without these properties requires Axis to work hard and start with the basics since the point with the partner model is to work in long-term relationships, be open and loyal to the partners, which is possible if there is a mutual understanding between Axis and the partners and everyone agrees on that. Also, a local MSRP means Axis can have a price list to communicate to the market. Scalability will allow Axis to grow, which is one of the benefits with the partner model.

Finally, the participants discussed the partner model's fit on the Indian market according to the previously concluded key points and gaps (Table 31). There is a lack of knowledge on the Indian market regarding Axis's products and trust in the partner model. Non fit aspects, hence gaps: (1) In Indian cultures negotiation and short time horizons for business is expected, which is a problem for the partner model's margin structure since it requires partners to come back and repurchase in order to give benefits. (2) The scalability is seen as equally important in India as on Axis's other markets, the challenge will be to scale if the relationship driven market requires Axis's employees to be involved in all deals. (3) Different business cultures between Sweden and India. (4) Understand how India fits the partner model or how Axis has to adapt to India, including understanding the Indian regulations and the market. (5) Establishing a distribution chain in India is surrounded by questions on import, customs, and tax regulations, mainly due to India's complicated law and regulation system. (6) Establishing a local MSRP with the difficulties of currency risk, costs of import, and to decide for one or server price lists. (7) Handling MRP labels that today have different prices depending on distributor, generating bad trust for Axis brand. The participants agreed that it may be a good idea that Axis labels the product with MRP. (8) Pricelists not working properly not counteract price differences, since Axis does not know what the products value when they enter India. A solution to this can be that Axis imports the products, ensure a stable price list and opportunity to build up and maintain the partner program. Axis would also take the risk of currency fluctuation. (9) Not sure Singapore is the optimal split point for shipping to the Indian market, considering lead-time, cost etc. (10) The products is not stored so close to India, can this be changed in order to reduce lead time. (11) In India the distributors keep almost nothing in stock making Axis lose the partner model benefits of pushing the distributors to keep products in stock<sup>51</sup>.

Fit aspects: (1) Openness is not thought of as a problem, and the size of the distributors is ok. (2) Keeping the physical flow of products and the financial flow the same, since it simplifies the handling of documents.

Table 31: Fit of partner model and the Indian market with identified gaps.

Partner model	Indian market	Identified gap
Swedish culture	Indian culture	Negotiation, price focus,
		relationship driven
Long-term	Short-term	Different time horizon
Scalable	Scalable	-
Openness	Openness	-
Local MSRP, price list	No price list	Currency risk, Axis does not
		know: import cost and freight &
		insurance cost
No MRP label	MRP label	Distributors put on own MRP
10 days delivery to order point	4-6 weeks lead time to end user	Lead time longer than Axis ideal
Distributors have stock	Distributors keep minimal stock	Distributors added value is
		dropped
Margin structure for rebates	Margins unknown, pay duty on	Back-end rebates not applicable
	rebate	
Run-rate business	Project based business	Hard to create value for
		partners with using the program

To conclude the discussions, the partner model does not work properly in India today and some of the participants stress that there is no benefit for partners to make run-rate business instead of project business since they get lower prices if they purchase products as a project<sup>52</sup>.

<sup>&</sup>lt;sup>51</sup> Would this be changed if Axis takes the currency risk? Some of the participants tells that the distributors in the Middle East trade with both Axis and system integrators in USD, but they do not keep stock anyway. Axis has to figure out a way to make it more attractive for the distributors to keep stock in India.

<sup>&</sup>lt;sup>52</sup> It has been the same with Brazil and Russia.

To make it work, Axis has to establish a stable price list. Establishing a price list would be simplified if Axis imports the products into the Indian market.

### 6.2.3 REQUIREMENTS AND REQUESTS

During the mini workshop the question about the markets requirements and requests was in focus. This topic was also discussed during the big workshop during the different activities but not as an own topic.

Warranty: Regarding warranty it was discussed that it can be a way to be competitive. It should be investigated how Axis's warranty is compared to the competitors' on the Indian market.

Low priced cameras: The response to the idea of introducing a small range of low priced cameras on the market was that it is no use to have a small range. If India should have their own camera models, it has to be a whole product portfolio with around 15 cameras. The strength is to have many alternatives. It was also discussed that Axis cannot compete on price on the Indian market. Instead Axis has to offer the right software and channel in combination with having the right sales partner. Axis has to change the "playground" in order to find other aspects than price to compete on. Also, it was added that Axis is not targeting end users with installations of small systems; it is not Axis core market. If a new product portfolio is introduced, it has to fit with Axis existing camera portfolio. The benefit of developing a customized product portfolio, which is started in China, should be utilized.

#### 6.2.4 Trade agreements

Discussion with Interview 11 confirmed the conclusion in 6.1.3.1 Trade Agreements, the trade agreement APTA is not if interest for Axis since it is not of interest to make large distribution changes only because of a trade agreement.

#### 6.2.5 Distribution Design

The aspects that were given by the participants during the workshop<sup>53</sup> are presented in Table 32. Their votes on the aspect they consider most important are presented in Table 33.

<sup>&</sup>lt;sup>53</sup> First empirics regarding distribution in India were presented then the exercise had five rounds plus discussion. Round 1: The participants were divided into two groups provided with post-it notes. The question to be answered: "Which aspects affects the decision when determining how to distribute products to the Indian market?". Answering on post-it notes. Round 2: The two groups together clustered both groups' post-it notes with the aspects. All aspects connected to each other by a shared sub-topic area where placed together and given a sub-topics name. Round 3: All participants got five small round stickers each sticker representing one vote. The participants were asked to vote on the aspects they think is most important to consider when determining how to distribute products to the

Table 32: The clusters with including aspects that is important to consider when designing a distribution flow.

Name of sub- topic/cluster	Customs	Lead-time	Viability (cost vs. income)	Business model	Destination of goods
	What compliance responsibility taken?	Lead time	Volume (total and per shipping)	Discount model	India geography, destination of goods
	Import regulations	Time	Size/volume	Margin structure	Destination of goods
Aspects presented	Import duty rates		Transfer pricing	Use same model?	Where is customers, system integrators, and distributor
	Customs		Price of import	MRP	
	Who is the importer?		Invoice value		

Table 33: Vote results for the aspects that is important to consider when designing a distribution flow.

Name of sub- topic/cluster	Customs	# votes	Lead- time	# votes	Viability (cost vs. income)	# votes	Business model	# votes	Destinati on of goods	# votes
	What compliance responsibility taken?	2	Time	4	Volume (total and per shipping)	3	Discount model	3	India geography, destination of goods	4
Aspects presented	Import regulations	2			Price of import	4	Margin structure	6		
	Customs	2				•				

The aspects that are most important to consider when distributing to the Indian market are:

- Margin structure (6 votes)
- Price of import (4 votes)
- India geography, destination of goods (4 votes)
- Time (4 votes)

Indian market. After they had voted it was concluded which aspects that had gotten most votes. Round 4: In the fourth round participants illustrated in groups how they think Axis should distribute products to the Indian market.

- Customs import regulations Compliance (6 votes)
  - (during the discussion this aspects were considered to be one aspect and therefore it was counted to have six votes)

The participants illustrated how they think Axis should distribute products to the Indian market (Table 34).

The first group concluded that since approximately 50% of the end users benefit from import duty reduction, the volume for starting import is too low<sup>54</sup>. Axis cannot import products to the end users with import duty reduction since the end users in that case most likely would purchase from another supplier. Axis should therefore find another consolidation point instead of Singapore that is closer to India. Products from the CLCs would be shipped to this consolidation place; the group suggests Dubai since it is between the European CLCs and India. Even if Axis does not import into India this option would reduce the lead time to the Indian customers. Also, it must be possible to label the products with MRP labels since this would reduce the questioning of Axis's trust from the end users.

The second group also suggests using Dubai as a consolidation point instead of Singapore since it is between the European CLCs and the Indian market. However, this group suggests that Axis should import the products to India via a port in Mumbai and sell it to the distributors on the Indian market in INR. This group agrees with the first group that MRP labels should be put on the products prior to import, organized by Axis so that all products with the same article number has the same maximum retail price. This group did not consider the end users with reductions in customs duty.

Table 34: The summarized result of the two groups' suggestion for the distribution design of the product flow to the Indian market.

Distribution design of the product flow to the Indian market							
Aspect	Group one	Group two					
From CLC to	Consolidation point	Consolidation point					
Consolidation point	Dubai	Dubai					
Sale to distributor	Outside India (USD)	Inside India (INR)					
Importer	Distributor	Axis					
Port	-	Mumbai					
MRP labeling	By Axis	By Axis					
Lead time	Reduced	-					
Considered end users with duty benefit	Yes	No					

<sup>&</sup>lt;sup>54</sup> The participants did not set a minimum value; it has to be further investigated.

The final discussion in the distribution flow section concluded that the flow for end users without reductions in customs duty is small and together the group decided that it is not interesting for Axis to start importing such a small amount of products. Establish an import process requires a lot of resources and the group does not think the Indian market will give enough in return at this point. Not importing makes it difficult to establish a price list even in the future. Additionally, being present on the market is a way of elude the competitors and hinder them from having a free playground in India and use that benefit of growing in India to later be growing on other markets. The group concludes that it may be of interest to try to have two different price lists, one for regular end users, and one without customs duty for the end users with reductions in import duty. This could to some extent make it more visible on the market what the recommended prices are on Axis's products, even though it is difficult to maintain pricelists for a long period of time due to currency fluctuations. To conclude, the decision on importing into India should be postponed until the sale in India is larger. According to the growth prognoses for the Indian market that will be quite soon (see Q1: Market opportunity 6.1.1)

### 6.3 Refined solution

In this section of the report the previous presented solution ideas are compared with the outcome of the testing. The comparison is presented through a discussion of interesting outcomes from the workshop that results in a refined solution for each research question.

According to the empirics and the result from the workshop, the major challenges that have been identified are:

- Sell products on the Indian market
- Corruption
- Apply Axis Price list of MSRP
- Implement Axis Partner program
- Design an effective distribution flow

### 6.3.1 Q1: Sales and Market Potential

The Indian market is a very large market with great market potential and it is most likely possible for Axis to gain positive market potential. Even though Axis only sells products to the small high-end segment, it is important to emphasize that there are many end users that could purchase Axis's products. Hence, there is a positive sales potential for Axis in India during 2014-2016. But, challenges need to be addressed in order for Axis to have a chance on the Indian market. The company must map the Indian culture and understand the underlying conditions on which the end users make their purchasing decision. The price pressure is hard

and the market is fragmented. Counteracting corruption needs to be addressed continually. It could be beneficial to have a number of products that attracts end users who are willing to pay for good products, but not as high-end products as Axis offers in India today. Doing this would broaden the segments that Axis is focusing on from only offering high-end to focusing on both high-end and medium-end products, which would attract a larger number of end users. Independent of Axis's decision on broadening the products portfolio in India, the market requires a lot of effort from Axis. In order to grow, Axis will have to invest a lot of time and commitment to convince Indian end users to purchase Axis's products. This includes education of the end users; they have to be informed how good Axis's products are compared to the competitors' products. Finally, Axis's strategy states that the company should grow on emerging markets. This is an argument for Axis to focus on India and to make it a growing part of Axis's sales.

# 6.3.2 Q2: PRODUCT/SERVICE ADJUSTMENT

The testing of the solution idea did not add many changes made in the refined solution for product/service offer. The change made is regarding that Axis should introduce a small rage of low-priced cameras on the Indian market. The testing, meant that of customizing products for the Chinese's market is not only for one or two products but for a whole product portfolio of around fifteen products. To be successful with a new range of products, the customers still have to have some to choose between. Therefore, in the refined solution it is suggested that the products designed for the Chinese market also should be offered on the Indian market.

The refined solution suggests that it would be beneficial for Axis's sales in India to implement the following changes to today's offer.

# Requirement:

• Take over the activity of placing MRP-labels on the product before they reach the Indian border (as suggested in innovate solution).

#### Requests:

- The warranty on Axis products should be extended to match the competitors on the Indian market (as suggested in innovate solution).
- Axis should continue to be the market leader in network video globally (as suggested in innovate solution) (as suggested in innovate solution).
- The lead time, from when the products are ordered until they reach the end user should be shortened (as suggested in innovate solution).
- Continue to have a broad range of products with many features and new technology (as suggested in innovate solution).

Introduce a portfolio of low-priced cameras on the Indian market, based on the
development of customized cameras in China (in innovate solution, a small range of
products were suggested to be introduced on the Indian market, but instead the
portfolio must not be too small according to the refined solution; it must fit Axis, who
has a broad product portfolio).

### 6.3.3 Q3: Trade Agreements

As concluded earlier, there is no trade agreement or government incentive hat Axis could benefit from.

# 6.3.4 Q4: Own vs. Distributors Import

The testing gave some new aspects mainly based on partner program aspects.

The criteria identified for scenario evaluation was tested and the aspects considered to be the most important for the distribution decision were:

- Margin structure
- Price of import
- India geography, destination of goods
- Time
- Customs import regulations Compliance

They correspond to our original one as illustrated in Figure 49.

Table 35: Testing of fit between aspects from the workshop and the identified criteria in the analysis.

Aspects from workshop	Identified criteria
Margin structure	Partner program, price list, and back-end rebate
	(criteria 2, 3 and 4)
Price of import	Import duty and Cost aspects
	(criteria 8 and 11)
India geography,	Not applicable for the scenario evaluation but important to take
destination of goods	into consideration later in the process when determine what
	ports to use and where to have a delivery point for Axis's
	customers to pick up the products
Time	Lead time
	(criteria 13)
Customs - import	Not in our criteria so an added criteria in the refined solution
regulations - Compliance	

In the refined solution it is added compliance in customs, which is to follow the regulatory system in India. This criterion was not highlighted in the identification phase. It should also be

stressed that during the workshop the partner program was considered very important for Axis; it is a base for Axis future growth, and function on the Indian market. The partner program was included within the aspect "margin structure", the participants meant that the margins in the partner program should be in place in India to facilitate growth on the Indian market. The margin structure was considered to be most important together with customs compliance. The workshop also added that the criteria price and lead time is of high relevance.

The major advantages for Axis to start importing are:

- Possible to establish a price list
- Back-end rebates will be applicable
- Conditions for implementing the partner program will be in place

On the other hand the major disadvantages for Axis to start importing are:

- India is a relationship based market
- Price pressure and negotiation are fundamental parts of the culture

The initial three points are due to the circumstances that Axis cannot establish a recommended price list as it is today. This affects the possibility to use rebates as incentives for the partners to be in the partner program and buy Axis's products as run-rate, and a lack of conditions to implement the partner program. Also, the cost of duty affects the back-end rebates, since the rebate is part of the products' value presented to customs today. The difficulty in applying the partner program and create a stable run rate business might have other or additional reasons than lack of pricelist and back-end rebates. One reason to the low share of run rate<sup>55</sup> could be the Indian culture, which makes customers eager to negotiate on price and require involvement by Axis. Thus, the partner program as it is designed today might not be the way forward.

The two disadvantages address the mismatch between the Indian culture and Axis traditional way of working. The partner program is not designed for a project driven market where Axis has to be involved in every sale having personal contact with the partner during the sales process. The test added that by implementing a price list, conditions for the partner program will be created. Although, by introducing a recommended pricelist and applying the partner program like on the mature markets, the market conditions are not changed and will not create better preconditions for the model to fit the Indian market. India will still be a relationship driven market with demand for personal contact. Axis should tweak the partner

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 $<sup>^{55}</sup>$  Run-rate in India is 30 % of the total sales, while actual run-rate where Axis is not involved in the selling process is only 5-6 %.

program and educate targeted partners and market segments to reach a fit. To gain attention, Axis should modify the partner model to the Indian market and then educate key partners; it is more likely to be successful in the educating if the adjusted partner program is in place prior to education. However, implementing the partner program is not equal to having more run-rate business in India. The Indian culture indicates a more relationship driven run-rate where Axis is still involved in the sales process rather than actual run rate where Axis is not involved.

The final answer to research question four should be based on cost and partner program aspects. Therefore, the refined solution is concluded accordingly;

### The cost aspect

If Axis starts importing, there will be initial costs; start-up costs, and it will require a lot of effort from Axis's employees. In addition, Axis can only import for half the product flow<sup>56</sup> which results in lower advantage even though it requires the same investment and effort as if Axis could import all products. Axis focuses a lot on the other BRIC countries and Axis should ask themselves the question whether it is possible to maintain high quality on the work when focus is split between many areas. It may be wise to wait until the other BRIC counties have become reasonably stable.

### The partner program aspects

The partner program is built upon Axis's strategy, vision, and goals. If considering these aspects the part of the strategy addressing *long-term loyal partnerships* and *global expansion* indicates that Axis should start importing. Regarding the core values of the company one of them is *Think big* that also indicates that Axis should start importing. One of the goals are directly addressing the emerging markets; 40 % of the revenue is expected to come from emerging markets in 2020, this is also indicating that Axis should start importing.

To conclude, there could be several solutions to research question four. However, the refined solution is that Axis should start import to India in order to have the company's strategy operational and to develop the basis of the strategy – the partner model – further. To do this, Axis has to take control over the import of products to India. Although, the import should not be started immediately; Axis is recommended to first determine a strategy for how to tweak the partner program to fit the relationship and cost driven market that India constitutes. This strategy has to be set in cooperation between Axis and Axis India to find something that will

 $^{56}$  Approximately 50% of the end users benefit from reduction in import duty. Therefore, Axis cannot import to these end users.

work in both cultures. It is important that before starting import the developed strategy must be finalized to ensure that the communication towards the partners regarding the implementation of the designed partner model is unified. It is also recommended that Axis wait with importing until the political conditions concerning the government election in 2014 has become stable (5.2.4 Politics).

# 7 RECOMMENDATIONS TO AXIS

This chapter will present recommendations to Axis concerning the obtained solutions to each research question. Thereby, the chapter also presents areas for further investigation that is suggested for Axis to conduct.

### 7.1 SALES AND MARKET POTENTIAL

The area of Sales and Market Potential covers both research question one<sup>57</sup> and two<sup>58</sup> in this Master's thesis.

## 7.1.1 Q1: SALES POTENTIAL

The video surveillance market in India is growing, and this includes the high-end segment that is willing to purchase Axis's product. Especially the market for IP based surveillance systems is growing, it is estimated to have a Compound annual growth rate (CAGR) of nearly 42 % in 2011-2016. Although, according to the latest market reports the segment of Small and Medium Enterprises (SME) is growing a lot and the question is how much of the market that is suitable for Axis products. Can SME be a segment for Axis in India? Since India is a huge market a relatively small share of the market will be of great importance.

However, there is additional information that Axis should obtain in order to get the whole picture. To begin with, the actual growth of the high-end IP market should be investigated further. Is it growing accordingly to the efforts Axis would have to make in order to sell the products? Moreover, an analysis of the reasons to why Axis loose sales in India has to be made together with an analysis of the reasons to why Axis has won projects. The order winners and order qualifiers have to be analysed more deeply to ensure Axis's market potential on the Indian market. Also, understand what changes Axis could do with their offer to adjust to the Indian market. Also, why is the market for analogue products still dominant on the Indian market? Knowledge about these aspects would give a better opportunity of making good and solid decisions.

### 7.1.2 Q2: PRODUCT/SERVICE ADJUSTMENT

Axis is recommended to change their offer in India the following way (with decreasing priority):

<sup>&</sup>lt;sup>57</sup> Does the Indian market opportunity for video surveillance for the coming three years, 2014-2016, indicate positive or negative sales potential for Axis's products?

<sup>&</sup>lt;sup>58</sup> Based on local requests or requirements for network video on the Indian market, what adjustments, if any, in the offer of products or services would be preferable for Axis's sales in India?

- 1. Take over the activity of placing MRP-labels on the product before import
- 2. Extend the warranty to match the competitors on the Indian market
- 3. Introduce a portfolio of cameras customized for the Indian market, based on the development of customized cameras in China

The first change has to be implemented in collaboration with the distributors in India. By having Axis putting on the MRP-labels the advantages are:

- One price can be communicated to the market
- Axis will gain trust from the end user by having the same MRP on the same products
- Axis will get a better understanding of the distributors' pricing
- The lead time might be shorter since the distributors do not need to store the products outside the Indian border to put on the labels
- Axis will have better understanding of how the pricing works in India
- Hopefully, the relationship between Axis and the distributors will be strengthened

This should be started with a dialogue internally at Axis between operations and CLC personnel, to ensure that this activity can be managed at one of Axis's CLC. Simultaneously it should be investigated if the labeling activity can be managed at Axis's cross docking point outside India. After these two discussions it should be decided which of the two alternatives that is most beneficial for Axis. After having the internal plan set, Axis should through Axis India take contact with the three distributors and explain the intent to take over the MRP labeling activity and arrange a meeting where the MRP can be discussed and jointly agreed upon. Two out of three distributors have already agreed on that this would be a positive change. During the meeting it is important that Axis learn how the process is done today and if there is any special regulation that they have to adapt to. After this the labeling activity can start.

The second change, extension of warranty time, has to be implemented in collaboration between Axis and Axis India. By extending the warranty time for Axis's products in India the following advantages could be achieved:

- Axis India will have a more attractive offer to the end user
- Axis India will be more competitive
- The offer in India will have a better match towards the competitors
- More projects can be gained by Axis India

This master's thesis shows that Axis has the lowest warranty time frame among the competitors. It is recommended that Axis India investigates the different warranty time

frames of major competitors to conclude how much Axis should extend their warranty on the Indian market.

The third change, a customized product portfolio for the Indian market, could have the following advantages:

- Axis will have an offer that is more in line with the demand from the Indian market
- It will be easier to adjust to the price pressure on the market
- More end users can be reached since the offer will attract a larger share of the market segments
  - Axis's brand will be more spread on the market
  - o Axis India will gain more projects
  - o Axis India will have an increased sales volume
- Axis will have a better understanding of the end users' requirements
- Axis will have to put more focus on the Indian market and hence the company will get a better overall understanding of the market

The recommendation is that Axis conducts further research regarding customization of products for the Indian market. Customizing products only for the price focused Indian market should be further investigated. It has to be studied if the Chinese market can match the demand in India as well. The fact that the language in India is English might make it less useful to customize products only for the Indian market. Further, Axis has currently their focus on installations of systems with more than 16 cameras on all their markets. For Axis to grow even more globally it would therefore be beneficial to also address the market for installations of systems with less than 16 cameras. Regarding the Indian market a customized product portfolio with lower prized cameras might be a way for Axis to address the segment of end users looking for systems with no more than 16 cameras, that is believed to be a big part of the Indian market for video surveillance.

#### 7.2 Trade Regulation

The area of Trade covers research question three<sup>59</sup> in this Master's thesis. There is no recommendation to Axis since there is no trade agreement or government incentive that Axis could benefit from.

<sup>&</sup>lt;sup>59</sup> Which, if any, trade agreements or other governmental incentives in India could Axis benefit from?

# 7.3 DISTRIBUTION FLOW

The area of Distribution Flow covers research question four<sup>60</sup> in this Master's thesis.

### 7.3.1 Q4: Own vs. Distributors Import

The recommendation is that Axis should take over the import activity for the end users who pay normal duty, and keep today's distribution flow for end users with reduction/elimination in import duty. Thus, Axis and the end users will be importers. Axis should start to address the following:

- Define a strategy for development of the partner program on the Indian market
- Ensure that the right resources and competences are available for focusing on India
- Prepare required documents and establish the collaboration partners that are needed in the import process

The recommendation is based on the main arguments of opportunity to establish a pricelist and develop the partner program as well as applying back-end rebates, which are identified as crucial for Axis's growth.

# 7.4 FURTHER INVESTIGATION

Related to research question one, two, and four, there are several questions that could be further investigated. To begin with, the partner program needs to be adjusted to the Indian market, which generates questions of how to handle the cultural differences but still apply Axis's partner model. How can the partner model be adjusted to the relationship driven market? The back-end rebate is central in the partner model, but the legal aspects need to be investigated to ensure compliance to Indian law. Regarding competition, a thorough competitor analysis and lost-sales analysis could be of interest in order to more thoroughly understand the reasons to Axis's and the competitors' market shares. Also an analysis of the actual end user prices for Axis's products in India to compare both internally and externally. Studying other companies' distribution flows, both for normal customers and for customers with reduction/elimination in import duty, would be of interest to understand if there are any additional options.

<sup>&</sup>lt;sup>60</sup> Based on costs and partner program aspects, what are the advantages and disadvantages for Axis to start importing to India compared to letting the distributors continue handle the import?

### 8 ACADEMIC CONTRIBUTION

This chapter presents the result of step seven in the applied project process that is the academic contribution. The purpose is to give the reader an understanding of what gaps in the academic world have been filled with this projects' contribution. The chapter also give suggestions of what has to be further investigated to fill even more gaps.

Understanding of market potential and design of distribution flows are both areas that have been in the academic literature for many years. As Lehmann and Winer (2005) states the estimation of future market potential is not an easy task to perform and the likelihood that the estimates will be correct is very small. Although, it is of interest to understand the trends and what direction the potential is heading. In the present master's thesis the authors have developed these theories further. When looking to the other area, litterature of designing distribution flows, it is mainly focusing on the logistics aspects. There is not many reserachers combining the distribution aspect and the legal aspect concerning import and export. There are some reseracher, for example Flodgren, et al. (2010) who are combining the two diceplines in order to increase the understanding of the challanges that can occur in the gap of supply chain management and business law. The authors of this master's thesis have combined theories from both diciplines to develop a new theoretical framewok. The main theories used are Chopra and Meindl (2004) from the supply chain field and Nelson (2000) that covers business and import aspects. The combined theories has resulted in the research framework. The idea with the model is to cover the areas that are important to study when considering the design of a distribution flow that includs import. This model is the reserachers contribution to the academic world.

The authors' research framework can be further developed to provide a more solid base for research. The section for market potential could be complimented with a deeper analysis of the market drivers and trends, and the customer analysis could be extended with investigation of how the end users' behavior is likely to change in the future related to the studied market. Finally, the result of the thesis would benefit from a more extensive examination of how the practical import process is affected by corruption and how it will impact the company.

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# APPENDIX A: HS-CODE CLASSIFICATION

When determine the HS-code for a product the headings and remarks in the official list with all the codes are used. As an example the HS-code for a living horse will be 0101 with the heading "living horses", but if the horse is part of a circus it should be classified as 9508 with heading "traveling circuses" (Tullverket, 2011). That the horse should be classified like this can be read by the remarks for the numbers, the remarks are a bit more detailed than just the headings.

# APPENDIX B: INTERVIEW GUIDES

Following questions are a sample of questions asked to the interviewees. The interviews were different from each other depending on the company's relation to Axis and the interviewee's position at the company.

#### Introduction

1. Please describe your role at the company.

#### Distribution

- 2. Describe the flow of Axis's products that your company handles.
  - a. Pick-up
  - b. Transportation
  - c. Storage (are products kept in stock?)
  - d. Delivery
  - e. Return flow
  - f. Order flow
  - g. Payment flow
- 3. Describe the import process
  - a. How does customs clearance work in India?
    - i. Challenges?
    - ii. Lead time?
    - iii. Import duty?
  - b. How are the products classified?
  - c. Is there any useful trade agreement or government incentives?
- 4. Describe the export process

#### Indian market and sales

- 5. Describe the market for video surveillance products in India. Analogue and IP.
  - a. How does it look today?
  - b. How will it develop?
- 6. What segments do you sell products to?
- 7. What segments purchase Axis's products?
- 8. What do Indian end users want and what are they willing to pay for?
  - a. Price, quality etc.

# Axis wants to investigate the opportunity of handling the import into India.

- 9. How would it affect you if Axis handles the import?
- 10. Advantages and disadvantages?

# APPENDIX C: INTERVIEWEES

Axis country	Business area	Date	Interview ID
Axis India	Finance	2013-11-18	1
Axis India	Sales	2013-11-18	2
Axis India	Sales	2013-11-25	3
Axis India	Sales	2013-11-27	4
Axis India	Finance	2013-11-18	5
Axis India	Finance	2013-11-20	6
Axis India	Finance	2013-11-27	7
Axis Sweden	Sales	2013-11-05	8
Axis Sweden	Finance	2013-11-04	9
Axis Sweden	Finance	2013-11-05	10
Axis Sweden	Operations	2013-11-14	11
Axis Sweden	Sales	2013-10-28	12
Axis Sweden	Sales	2013-10-28	13
Axis Sweden	Operations	2013-10-22	14
Axis Sweden	Operations	2013-10-23	15
Axis Sweden	Operations	2013-10-30	16
Axis Sweden	Sales	2013-10-28	17
Axis Sweden	Operations	2013-10-29	18
Axis Sweden	Operations	2013-10-17; 2013- 11-08	19
Axis Sweden	Operations		20
Axis Sweden	Sales	2013-01-08	21
Axis Sweden	Sales	2014-01-20	40
Axis Sweden	Sales	2014-03-21	41

Role in relation to Axis	Position	Date	Interview ID
Distributor	Assistant Product Marketing Manager Product Marketing Manager	2013-11-27	22
Distributor	Manager – Operations	2013-11-22	23
India trade expert	Consultant; Counselor for Trade and Economic Affairs	2013-12-02	24
System integrator	Supply Chain manager;	2013-11-19	25

Role in relation to Axis	Position	Date	Interview ID
	National Manager Sales – Global & Key Accounts		
System integrator	Sales	2013-11-29	26
Logistics expert	Director – Customs and Integrated Logistics	2013-11-26	27
Swedish company in India	Director Head – Supply	2013-11-28	28
Swedish company in India	Manager, Supply Development	2013-11-24	29
Assembly expert	Senior manager – Program; General Manager; Sr. Manager – Quality, Business Excellence; Senior Manager – Operations; Director – Service Operations; Sr. Manager – Engineering Services Assistant Manager – Program	2013-11-21	30
System integrator	Operations manager	2013-11-19	31
System integrator	Head - Supply Chain	2013-11-28	32
Distributor	General Manager – Logistics; General Manager – Taxation; Product Manager; Director – Materials	2013-11-26	33
Logistics expert	Manager – Custom Clearance; Country Head – Special Products Customs, Projects and Oil & Gas	2013-12-02	34
System integrator	Manager Sales and Marketing; Manager Sales and Marketing;	2013-11-29	35

Role in relation to Axis	Position	Date	Interview ID
	Manager Sales and Marketing		
FTZ experience	Business Consultant	2013-11-25	36
System integrator	Procurement Manager; Assistant manager Design & Engineering	2013-11-22	37
System integrator	Head-IBMS & PSS Practice, SIMS, GIS	2013-11-20	38
System integrator	Manager - Commercial	2013-11-20	39

The companies that have been interviewed during the project can be seen in the table below:

Company
ADI
Anixter India
Business Sweden;
Embassy of Sweden
Chubb Alba
Diebold
DHL
Ericsson India
Flextronics
HDI
Honeywell
Ingram Micro
Kuehne + Nagel
Siemens
Sigma-Byte Computers
Тусо
WIPRO

# APPENDIX D: WORKSHOP METHOD

- Preparatory work
  - The attendees were selected according to their position on Axis, all of them will take part in the decision making on how Axis will address the Indian market in the future. Everybody was invited to the workshop several weeks in advance.
  - One week before the workshop the agenda and the purpose with the workshop was sent by email to the attendees.
  - The day before the workshop, the room was prepared with material such as whiteboard, pens, and paper.
- The workshop
  - o Welcome + Introduction
    - Briefly describe the master thesis project and the purpose with the workshop
    - Parking space: if an interesting topic comes up, it can be parked if it
      does not fin in the discussion at the moment. Later, in the end of the
      workshop the topics posted on the parking space will be discussed.
       The parking lot is a poster where the attendees can put post-it notes.
    - The group was asked to keep Axis's core values, goals and strategy in mind during the workshop. This was made to ensure that the discussions are based on right conditions.
    - Rules of the game were explained. Do not use cell phones, listen to everyone and be positive.
    - Two groups the attendees are divided into two groups in which they will work.
  - o Warm-up
    - Started with a brainstorming session to get the attendees started
    - Question: Why is the topic of this master thesis the Indian market?
    - The groups discussed for some minutes, wrote everything down and afterwards it was discussed in the entire group.
  - Case: Market opportunity
    - Presentation of facts (empirics from the project)
      - They get a hard copy of all information presented
    - They get 3 questions to discuss (in two groups, 15 minutes)
      - Present 5 arguments for and 5 arguments against getting more involved in India
      - Which are the biggest risks with the Indian market?
      - Which are the biggest challenges with the Indian market?

• The groups discussed, wrote down their answers and presented their results and the session was finished with a discussion all together.

#### o Partner model

- The groups were asked to discuss and write down what they think of when they hear the following words (applied to the partner model)
  - Values
  - Pre-conditions
  - Challenges
- The groups wrote down everything, and then they got a new paper where they highlighted the key points from values, pre-conditions, and challenges.
- The groups got new papers where they wrote down points on how the values, pre-conditions and challenges fit with the Indian market.
- Discussion all together: how do the key points that are written on the groups' papers fit with conditions on the Indian market?
  - Questions that were asked to the attendees (a sample):
    - How important is it with a well-functioning partner program when most of the sale is project-based?
    - How is loyalty from the partners developed?
    - What value does the distributor add on the Indian market?
    - Is it possible to get the distributors keeping more stock?
       If they do not keep stock, what can they contribute with then?
    - The partner model can be seen as a "mature-market tool", is it possible to apply on an emerging market?
       Any alternative solutions to apply on an emerging market?

#### Distribution Design

- Facts (empirics) were presented
- Round 1: The problem (FUNC 3 card). In two groups, the attendees get post-it notes and write one thing on each note: "Which aspects affects the decision when determining how to distribute products to the Indian market?"
- Round 2: Cluster (FUNC 3 card). The two groups together cluster the post-it notes and wrote headlines to each cluster of post-it notes.
- Round 3: Dot voting (FUNC 3 card). Everybody get 5 stickers each to put on post-it notes – vote on the aspects they think is most important

- to consider when determining how to distribute products to the Indian market. Conclude which aspects that have gotten most votes.
- Round 4: Solution. The two groups get posters where they illustrate how they think Axis should distribute products to the Indian market.
- Discussion: The two groups' distribution suggestions were presented by each group and discussed.
  - Questions that were asked (a sample):
    - Which factors have affected your suggestions most?
    - What would make you change your mind?
    - o Which time frame is it used for?
    - What are the major risks with the distribution suggestions?

### o Sum-up

- Check if there is anything on the parking space to discuss
- Summarize key-points from the discussions
- Evaluation of workshop: I wish.... I like.... (FUNC 3).

# APPENDIX E: WORKSHOP MATERIAL

Hard copy of information presented in the market case activity:

### India

- > 1.237 billion people
  - 21.9 % of population live below the national poverty line
- > 28 states
- > More than 200 languages
  - English is used for political and commercial purposes
- > Poor infrastructure



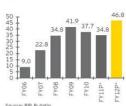
www.axis.com



### **Economy**

- > GDP 1.842 trillion USD1
- > Decelerating economic growth
- > Trade
  - Import
    - Goods: 217 billion USD<sup>2</sup>
       Services: 77 billion USD<sup>2</sup>
  - Export
    - Goods: 145 billion USD<sup>2</sup>
    - Services: 90 billion USD<sup>2</sup>
- > FDI
  - 0.3-0.4% of world's total2

FDI in India (US\$ billion)



FDI includes credit portion of direct investment in equity, reinvested earnings and inter-company debt transactions \*Provisional

Ernst & Young, 2012

The World Bank, 2014
 Kommerskollegium, 2009



# India's Import — Television Cameras, Digital Cameras and Video Camera Recorders

- > HS code 852580
- > April 2012 March 2013

Country	Value (million USD)
China	323.74
Singapore	7.21
Hungary	1.81
Sweden	0.45
Czech Republic	0.67
Total	577.70

www.axis.com



# **Politics**

- > Getting more libral, but tariffs are high
- > Bureaucracy
- > Complex employment rules
- > 134 on World Bank's list Ease of doing business
- > Election in 2014



# Corruption

- > 177 countries
  - India is ranked 941
- > High risk areas
  - Custom and import
  - Public procurements/sale to government entity
  - Permits, licenses and inspections



1) Transparency International, 2013

www.axis.cor



# **Culture and Business culture**

- > Relationships
- > Negotiate on everything
- > Price
- > Swedish companies in India
  - Challenges:
    - Skilled and loyal workforce
    - Regulatory system
    - Infrastructure
    - Corruption
  - Favorable country for business
    - 7.5 out of 10
    - Education and english speaking





#### Video Surveillance Market

#### Indian electronic security

> CCTV largest segment with 50%1



1) 6W Research, 2012 2) Kuick Research, 2013

#### Network video surveillance

- > Top 3 companies 53% of the market2
- > Big companies are
  - Cp-plus (China)
  - Hikvision (China)
  - Dahua Security (China)
  - Bosch (Germany)



#### Video Surveillance Market

#### > Growth trends

- Video surveillance: 32.5% annual growth rate in 2011-20162 - 952.94 million USD 20162
- CCTV: 27% compound annual growth rate in 2010-20151
- IP: 42% compound annual growth rate in 2011-20162



- City surveillance, hospitality, airport security, BFSI, retail, BPO, manufacturing, college campuses, infrastructure companies and education3
- In volume: government sector1
- RNCOS E-Services Private Limited, 2012
   6W Research, 2012
   Kuick Research, 2013



### Video Surveillance Market

- > Moving towards IP
- > Software based solutions and fully integrated soulutions
- > Video-Surveillance-as-a-Service has just started
- > Easy to enter the market
- > Government infrastructure and regulatory framework is critical

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### Axis India

> Turnover: in million USD

> Run rate: 5-6%

Model top 5

1. M3004-V

2. P3354 12mm

3. M1013

4. P3353 12mm

5. M3203



# APPENDIX F: WITHHOLDING TAX RATES

Withholding tax rates for specific payments applied for local companies (PwC, 2013 a)

Nature of payment	Payment threshold for WHT (INR) (1)	WHT rate (%)
Specified type of interest	None	10
Non-specified type of interest	5,000 (2)	20
Professional or technical service	30,000	10
Commission and brokerage	5,000	10
Rent of plant, machinery, or equipment	180,000	2
Rent of land, building, or furniture	180,000	10
Contractual payment (except for	30,000 (single payment) 75,000	2
individual/Hindu undivided family [HUF])	(aggregate payment)	
Contractual payment to individual/HUF	30,000 (single payment) 75,000	1
	(aggregate payment)	
Royalty or fees for technical services	30,000	10

Withholding tax rates for specific payments applied for non-local companies (PwC, 2013 a)

Nature of payment	WHT rate (%)
Dividend	0
Interest on foreign currency	10
Interest on moneys borrowed in foreign currency under a loan agreement or by	5
way of long-term infrastructure bonds (or rupee denominated bonds)(time period	
for borrowing is July 2012 to July 2015)	
Interest on investment in long-term infrastructure bonds issued by Indian	5
company (rupee denominated bonds or government security)	
Royalty and technical fees	25
Long-term capital gains other than exempt income	20
Income by way of winning from horse races	30
Other income	40

# APPENDIX G: DEDUCTION ON INVESTMENTS

The following businesses can benefit from deduction on investments (PwC, 2012):

- Setting up and operating a cold chain facility on or after 1 April 2009,
- Setting up and operating a warehousing facility for storage of agricultural procedure on or after 1 April 2009,
- Laying and operating a cross-country natural gas or crude or petroleum oil pipeline for distribution, including storage facilities being an integral part of such network commencing operations on or after 1 April 2007,
- Building and operating, anywhere in India, a two-star hotel or above category commencing operations on or after 1 April 2010,
- Building and operating, anywhere in India, a hospital with at least 100 beds commencing operations on or after 1 April 2010,
- Developing and building a housing project under a scheme for slum redevelopment or rehabilitation commencing operations on or after 1 April 2010,
- Developing and building a housing project under a notified scheme or affordable housing framed by the central or a state Government commencing operations on or after 1 April 2011,
- Fertilizer production in a new plant or in a newly installed capacity in an existing plant commencing operations on or after 1 April 2011,
- Setting up and operating an inland container depot or a container freight station notified or approved under the customs act 1962, on or after 1 April 2012,
- Setting up and operating a warehouse facility for storage of sugar on or after 1 April 2012 (PwC, 2012).