How to Target the Need for Self-Scanning Solutions in the Northeastern American Food Retail Market

A Case Study with Datema

PATRIK BERN
JOAKIM LARSEN

Master of Science Thesis
Stockholm, Sweden 2016
How to Target the Need for Self-Scanning Solutions in the Northeastern American Food Retail Market

A Case Study with Datema

Patrik Bern
Joakim Larsen

Master of Science Thesis INDEK 2016:15
KTH Industrial Engineering and Management
Industrial Management
SE-100 44 STOCKHOLM
Abstract

The development of digital solutions has changed the way consumers complete purchases today. New distribution channels through internet and mobile applications have come to challenge the business of traditional retailers. Thus, retailers must find new ways of keeping customers loyal to the store. One way of retaining customers is to provide a more prominent customer experience. This study focuses on technological solutions for the food retail industry that enables the creation of this experience, more specifically self-scanning applications provided by the Swedish company Datema.

The Swedish market, in which Datema acts, is among the most technologically advanced in the world regarding self-scanning solutions and has begun to reach a maturity phase. This, along with desires to expand the marketplace, has created an attraction to larger foreign markets such as North America. Similarities in business culture and a strong buying power have led to a certain interest in the Northeastern part of America. Thus, the purpose of this thesis is to investigate the need for self-scanning solutions in this specific area and to provide recommendations for how the market could be targeted.
To create an overview of the market structure the consumer market has been studied through an in-depth literature review of the latest market investigations. Furthermore, the technological level of Northeastern supermarket chains was investigated through market observations and interviews with store managers in Boston, Massachusetts. To create the holistic view of the market, interviews with experts in the US retail market and with US IT-vendors were conducted. Additionally, interviews with management consultants and experts in market entries have contributed to answering the question of how the market should be entered. Finally, in order to provide conclusions and recommendations, the results have been analyzed with relevant literature and theories within marketing, change management and entry mode management.

The findings in this master thesis indicates that there is a need for technological solutions that enhance the customer experience in the Northeastern American food retail market. Furthermore, the technological level of the existing supermarket chains in Boston is considered low and that the level and acceptance varies with the store concept. The previous resistance towards implementation of new technological solutions in the stores was found to mainly depend on a low knowledge, low trust in the consumers and fear of losing customer interaction.

Datema is recommended to address the middle and high-end supermarket chains with a follower approach. Further recommendations include that the market should be entered through a joint venture with a local partner.

Key-words:
Self-scanning solutions, Northeastern American Food Retail, Omni-channel retailing, Customer Experience, Relationship Marketing, Industrial Marketing, Change Management, Entry Mode Theories


**Sammanfattning**

Utvecklingen av digitala lösningar har förändrat hur konsumenter gör inköp i dag. Nya distributionskanaler via internet och mobila applikationer har kommit att utmana den verksamhet som traditionella livsmedelsbutiker bedriver, vilket har satt press på dagens återförsäljare att hitta nya sätt att knyta kunderna till butiken. Ett sätt att behålla kunder är att leverera en betydelsefull kundupplevelse. Denna studie fokuserar på tekniska lösningar för livsmedelsbutiker som möjliggör skapandet av denna upplevelse, mer specifikt självscanningslösningar som tillhandahålls av det svenska företaget Datema.

Den svenska marknaden som Datema idag är verksam på är bland de mest tekniskt avancerade i världen när det gäller självskanningslösningar och har börjat nå en mognadsfas. Detta tillsammans med önskan att expandera har skapat en attraktion till större utländska marknader som USA. Likheter i företagskulturen och en stark köpkraft har skapat ett visst intresse i nordöstra delen av USA. Således är syftet med denna undersökning att undersöka behovet av självskanningslösningar inom detta specifika område, samt att ge rekommendationer gällande hur marknaden kan målsättas.
För att skapa en bild av den nordöstra marknaden ha konsumentmarknaden studerats genom en grundlig litteraturundersökning av de senaste marknadsundersökningarna som gjorts inom området. Vidare har den tekniska nivån i nordöstra supermarkets undersöks genom marknadsobservationer och intervjuer med butikshefer i staden Boston, Massachusetts. För att komplettera tidigare resultat och för att skapa en helhetssyn på marknaden har intervjuer med experter på den amerikanska livsmedelsbranschen och med amerikanska IT-leverantörer genomförts. Vidare har intervjuer med managementkonsulter och experter på marknadsetableringar bidragit till frågan om hur marknaden ska målsättas. Slutligen, har resultaten analyserats med hjälp av relevant litteratur och teorier inom marknadsföring, Change management och etableringsstrategier för att kunna leverera slutsatser och råd.

Slutsatserna av detta examensarbete visar att det finns ett behov av tekniska lösningar som förbättrar kundupplevelsen på nordöstra amerikanska livsmedelsmarknaden. Vidare visade resultaten att den tekniska nivån på de befintliga livsmedelskedjorna i Boston var låg, samt att nivå och acceptans varierar med butikskoncept. Det tidigare motståndet mot införandet av nya tekniska lösningar visar sig huvudsakligen bero på en låg kunskapsnivå, lågt förtroende för konsumenterna och rädsla för att förlora kundinteractionen.

Datema rekommenderas att sikta in sig på de butikskedjor vars konsumenter är i det mellersta och premiumsegment. Datema rekommenderas att göra detta genom att tillämpa en follower-strategi. Ytterligare rekommendationer är att gå in på marknaden i ett samarbete med en lokal partner.

Nyckelord:
Självscanningslösningar, livsmedelsbutiker i nordöstra USA, Omni-channel retailing, kundupplevelse, relationsmarknadsföring, industriell marknadsföring, Change management, etableringsstrategier
Foreword

This master thesis work has been conducted under the department for Industrial Engineering and Management at the Royal Institute of Technology in Stockholm, Sweden. The work has been carried out during the period January 2016 to May 2016. During the period Mars 1st to Mars 22th was empirical data collected in Boston, MA.

Acknowledgements

We are most grateful and would like to thank all people that helped us during our master thesis project. Your help and encouragement has been of great value to us and the work itself.

Firstly, we would like to thank our supervisor Mikis Samaras at Datema for always being helpful, available, providing contacts and also for supporting the overall work. Secondly, we would like to thank Erik Larsen, Mattias Bernhardson and Fredrik Englund at Datema for giving us the chance to perform this master thesis and investigating this subject. You have also been there for interviews and handing us information, which we are very grateful for.

We would also like to thank our supervisor at the Royal institute of Technology, Henrik Blomgren, for giving us guidance, help and recommendations throughout the project.

Finally, we would like to thank all of our interviewees that have participated in this study. Special thanks to Gravity Consulting, Business Sweden, Zebra Technologies and Wincor Nixdorf.

Thank you for your engagement!

Patrik Bern & Joakim Larsen
Abbreviations

B2B Business to Business

CRM Customer Relationship Management

DIY Do it yourself

ERP Enterprise Resource Planning

MM Marketing Mix

POS Point of Sale

PSS Personal Shopping Solutions

RM Relationship Marketing

TMS Transportation & Logistics Management System

WMS Warehouse Management System

Glossary

Bagging: When the supermarket staff bags the groceries for the consumers

Convenient store: A small, often local food store with a retail space below 300m². The stores are either specialized or provide a generalized basic supply (IDG, 2015).

Hypermarket: The largest food stores with a retail space beyond 4500m² (IDG, 2015).

Multi-Channel: Referrers to that multiple and independent contact points exists between the customer and the retailer

Omni-Channel: Referrers to that one customer experience is delivered through all distribution channels. All channels are completely integrated with each other.

Pick and Collect: A software service that allows consumers to order foods online and later pick up the groceries at the supermarkets or get them home delivered.

POS provider: A vendor that provides point of sale solutions, including both software and hardware.

Supermarket: A larger food store with a retail space from 300m² to 4500m² (IDG, 2015).

Vendor: A distributor, supplier or seller of hardware
# Table of Content

1. **INTRODUCTION** ........................................................................................................... 1  
   1.1 **BACKGROUND** ........................................................................................................ 1  
   1.2 **PROBLEMATIZATION** .............................................................................................. 3  
   1.3 **PURPOSE** ................................................................................................................. 3  
   1.4 **RESEARCH QUESTIONS** .......................................................................................... 4  
   1.5 **DELIMITATIONS** ...................................................................................................... 4  
   1.6 **CONTRIBUTION TO SCIENCE** .............................................................................. 5  
   1.7 **RESEARCH DESIGN** ............................................................................................... 5  

2. **LITERATURE AND THEORY** .................................................................................... 7  
   2.1 **CURRENT RANGE OF TECHNOLOGICAL SOLUTIONS** ........................................ 7  
        2.1.1 **The Core of IT-systems in Food Retail** ............................................................ 7  
        2.1.2 **Self-Scanning** ................................................................................................ 9  
        2.1.3 **Click and Collect Services** .......................................................................... 12  
        2.1.4 **Distribution Channels** .................................................................................. 13  
   2.2 **CONSUMER MARKETS** .......................................................................................... 15  
        2.2.1 **Current Consumer Trends and Customer Experience** .................................. 15  
   2.3 **THE US RETAIL INDUSTRY** .................................................................................. 19  
        2.3.1 **The Boston Market** ...................................................................................... 23  
   2.4 **CHANGE MANAGEMENT AND ACCEPTANCE OF TECHNOLOGY** .................... 25  
        2.4.1 **ADKAR** ......................................................................................................... 26  
        2.4.2 **TAM** ............................................................................................................ 29  
   2.5 **MARKETING** ......................................................................................................... 30  
        2.5.1 **Relationship Marketing** .............................................................................. 30  
        2.5.2 **Industrial Marketing** .................................................................................... 40  
   2.6 **ENTRY MODE THEORIES FOR FOREIGN MARKET ESTABLISHMENTS** ............ 46  
        2.6.1 **What Market to Enter?** .............................................................................. 46  
        2.6.2 **How to Enter the Market?** ........................................................................... 47  
        2.6.3 **When to Enter the Market?** ........................................................................ 52  

3. **METHOD** ................................................................................................................... 55  
   3.1 **LITERATURE STUDY** ............................................................................................. 55  
   3.2 **COLLECTION OF DATA** ........................................................................................ 56  
        3.2.1 **Pre-Study** .................................................................................................... 56  
        3.2.2 **Market Observations** .................................................................................. 56  
        3.2.3 **Interviews with Retailers and Experts** ........................................................... 58  
   3.3 **PATH TOWARDS CONCLUSION** ............................................................................. 59  
   3.4 **SAMPLING** ............................................................................................................ 59  
   3.5 **RELIABILITY AND VALIDITY** .............................................................................. 60  
   3.6 **GENERALIZABILITY** ............................................................................................. 61  
   3.7 **ETHICS** ................................................................................................................ 61  

4. **RESULTS** .................................................................................................................... 62  
   4.1 **RESULTS FROM PRE-STUDY** .............................................................................. 62  
   4.2 **RESULTS FROM MARKET OBSERVATIONS** ....................................................... 63  
        4.3.1 **Trader Joe’s** ................................................................................................... 64  
        4.3.2 **Market Basket** .............................................................................................. 65
List of Figures

1. Research design..........................................................6
2. Retail Tree.................................................................9
3. The Omni-channel approach...........................................14
4. Median US household income........................................23
5. Median household income by state................................24
6. The five founding blocks of the ADKAR-model..................28
7. From marketing mix to relationship marketing..................31
8. Traditional competition.................................................33
9. Hierarchical competition...............................................34
10. Strategic network competition......................................35
11. Success factors in relationship marketing........................36
12. Variables affecting the entry mode decision....................49
13. Path towards conclusion..............................................59
15. Pre study results: Amount of self-scanning users.............63

List of Tables

1. Supermarket chains in Boston and Massachusetts...............25
2. Process of determine the entry mode...............................49
3. Statistics from market observations................................65
4. Results from semi-structured interviews with store managers.....75
5. Summary of results from interviews with Datema.................81
1. Introduction

This section of the thesis provides the reader with an introduction to the area of investigation and the problem formulation. Furthermore, it provides the outlines of the thesis, the methods used and the literature reviewed.

1.1 Background

The retail industry has been standardized with small changes over a long period of time, dominated by physical stores and sales over the counter. However, during the last decades the development of digital solutions and the Internet has opened up new distribution channels through online stores and mobile applications. In some retail industries the online channels have overtaken the traditional physical stores and the majority of the sales are completed through websites and other mobile applications (Salsberg, et al., 2012). This has forced traditional stores to use multiple channels of distribution, such as online stores, mobile applications and social media in order to stay competitive (Verhoef, et al., 2015), (The Nielsen Company, 2014).

Both food and non-food retail has developed rapidly the last decades. However, there are some major differences. Whilst some non-food retailers have come far with their multi-channel strategy of using both online and offline channels to distribute products with a unified brand impression, the food retailers struggle to do the same (Rigby, 2011).

In the Scandinavian market, food retailers have used technological solutions to enhance efficiency and customer experience for more than a decade (Englund, 2016). In most major supermarket chains in Sweden and Norway several solutions, such as self-scanning and self-checkouts exists. Hence, this region is one of the most technically advanced within the food retail industry.

One IT service provider that currently serves the Scandinavian market is Datema. Datema offers tailored solutions within; warehouse and manufacturing management, transportation and logistics, retail market, mobile sale forces, enterprise resource planning and field services. With over 25 years of experience Datema is the market leader in the Nordic region,
currently serving over 600 customers in Sweden, Denmark, Norway, Finland and Germany (Mikis, Datema). Datema’s solutions allow retailers to increase performance by utilizing resources with digital technologies. One of these is the self-scanning solution Easy Shop, which allows customers to control the entire purchase and checkout by themselves. The self-scanning solutions enable consumers to save time and take control over their purchase. Furthermore, the solution enables the retailer to gather consumer data and provide a better customer experience by allocating staff where they makes the most difference in the supermarket, instead of at the checkouts (Englund, 2016).

Self-scanning solutions have been used in the Scandinavian market for over a decade, which has resulted in a saturated market that leaves small room for further growth. Hence, due to the market situation in Scandinavia, companies such as Datema are interested in new foreign markets where these solutions might be applicable. One market with great potential is the North American market, this is the world's largest domestic market, consisting of over 300 million end consumers with the world’s fifth largest buying power. This makes the US market larger than the combined markets of the UK, Germany, France, Italy, Sweden and Norway (Kjeldsen, 2012). Furthermore, the US market has been a leader of the technological development with a highly educated recruitment base and an innovative business climate. However, due to the many opportunities that lie within an establishment on the US market the competitive environment is among the most hectic in the world (Kjeldsen, 2012). Additionally, the USA is a dispersed market and should, therefore, be considered as several countries rather than one. This is primarily depending on to the many local differences in income, culture and regulations between the different states (Business-Sweden, 2016). The northeastern region of the USA, referring to the area of; Maryland, District of Columbia, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island and Massachusetts are of particular interest since the culture and income distribution in these areas are similar to the Scandinavian market (Kjeldsen, 2012), (Business-Sweden, 2016).
1.2 Problematization

Today’s food retail industry is changing and consumers have several new options for buying groceries, for example the Internet and mobile applications. As a result, traditional supermarkets are faced with the challenge of keeping existing customers loyal to the store. Therefore, the importance of providing a unique customer experience has increased in order to keep customers from choosing other options (Zebra Technologies, 2015). Today, several technological solutions that assist retailers in being efficient and delivering a better shopping experience exist. One example of such a solution is the self-scanning application that Datema provides, which has helped Scandinavian retailers to achieve higher efficiency and improved customer experience.

However, the success in transferring this solution to the Northeastern American food retail market depends on the maturity of the market and the willingness to implement it. To answer if there is a demand for self-scanning solutions a holistic view of the market is needed, including: the consumer requirements, the current digital maturity on the market and the supermarkets’ perceptions of digital solutions. Furthermore, the current landscape among the existing IT-providers to the Northeastern US food retailers must be known in order to finalize this holistic market view.

1.3 Purpose

The purpose of this thesis is to investigate the need for self-scanning solutions in the Northeastern American food retail market. In addition, the aim is to provide recommendations for how the Swedish IT-solutions provider, Datema, can target this market.
1.4 Research Questions

To help the fulfillment of the purpose the main research question stated in this report was:

- How can Datema fulfill the needs for self-scanning solutions within the Northeastern American food retail market?

In order to answer the main research question the following sub questions were investigated:

1. What are the consumer requirements for technological solutions?
2. What are the retailers’ current perception and level of technical knowledge and technological solutions?
3. How can Datema target this market?

1.5 Delimitations

This study focuses on how IT-companies can provide services to the retail industry, more specifically the food retail industry. Hence, it is Datema’s area of expertise. The geographical outline of this study was limited to the Northeastern part of America. The sample investigated was chosen to represent the Boston area, which in turn is a representable sample of the northeastern market. Furthermore, the choice was supported by the similarities in culture and income structure of these areas. If the income distribution per household in North America is observed, the Northeastern states are the richest in the USA (U.S. Department of Commerce, 2014). In this thesis the Northeastern part of America refers to the following areas; Maryland, District of Columbia, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island and Massachusetts. The income similarities result in comparable trade conditions in these states. Furthermore, an investigation by Kjeldsen (2012) and interviews with The Swedish Business and Trade Council strengthens the similarities in the business cultures of these areas, which are described as equivalent to the European business culture (Kjeldsen, 2012), (Business-Sweden, 2016). Hence, it is of particular interest for Datema to target this area. However, local differences may exist, which could affect the accuracy and generalizability of this research.

In total, 34 supermarkets were investigated which were larger supermarkets located in the commuting and central areas of Boston, limited to a radius of 20 km from the city center. Furthermore, the limitation to larger supermarket was set since most of the commissioning
company's solutions were applicable in these types of stores. Furthermore, the investigation was limited to larger supermarkets as the majority of exiting technological retail solutions is applicable for this format and size. The size of the investigated supermarkets ranged between stores with a retail space of 300m² (supermarket) to above 4500 m² (hypermarket).

1.6 Contribution to Science

This study contributes to the research within industrial marketing, relationship marketing and management related to new market entries. The contribution within industrial marketing refers to the understanding of organizational buying, more specifically how retail organizations purchase technology and the different roles involved in the purchases. The relationship marketing aspect in this thesis creates an understanding of the network structure among retailers and their suppliers of IT-solutions. Furthermore, this study provides an understanding for the importance of partnerships and alliances within these networks. Finally, this study provides knowledge about new market entries, which has been acquired through interviews with industry experts and by reviewing accurate (relevant?) literature.

However, since this study has been conducted as a case study with one company and a specific market sample, the contribution is less generalizable to other industries than the one investigated.

1.7 Research Design

The first chapter of the thesis, Introduction, provides the reader with a background to the problem investigated to later present the problem itself. Additionally, the first chapter presents the research questions and the delimitations of the thesis.

The second chapter, Literature Review and Theory, provides the reader with the literature necessary for understanding the retail markets, consumer markets, current range of technological solutions, change management, marketing strategies and entry mode theories.

The third chapter, Method, explains the methodological approach of the thesis. More specifically how the investigations were carried out in terms of data collection and how validity, reliability and generalizability are achieved.
In the fourth chapter, *Results*, the main findings from the market observations and interviews are presented.

The fifth chapter, *Discussion*, presents the analysis of the results outlined in chapter four. The analysis is conducted with the help of the theories and the knowledge acquired in the literature review.

In the final chapter, *Conclusion and Implications*, the main result of the discussion are presented as conclusions by answering the research questions stated in chapter one. Furthermore, this chapter states the main implications of the thesis and provides suggestions for future work and studies.

![Figure 1: Illustration of the research design](image-url)
2. Literature and Theory

This section of the thesis provides the reader with the literature necessary for understanding the retail market, consumer market, the current range of technological solutions, and marketing theories and strategies.

2.1 Current Range of Technological Solutions

Before the business of Datema can be explained one must first understand the retail business and the core systems that it uses for its daily operations. These core systems are referred to as Point of Sale Systems (POS), Enterprise Resource Planning systems (ERP) and Customer Relationship Management systems (CRM). The below section provides the reader with a brief understanding of these systems’ and to later introduce the business of Datema, self-scanning.

2.1.1 The Core of IT-systems in Food Retail

Point of sale (POS) refers to the moment in which the customer purchases a product and the transactions between the retailer and the consumer takes place (Bodhani, 2012). Prior the technical age and the development of computers the point of sale was handled by cash registers’ with one function, to register the transaction. However, the POS systems of today are fully integrated systems that control several applications simultaneously and constitute the core of the retailer’s business. Among the functions are sales and inventory tracking, facilitating of business activities, protection and warnings against fraud and back office accounting (Bodhani, 2012). Hence the central role of today’s POS system, the integration of it with the store’s other functions is of great importance (Englund, 2016).

Another central system of the retailers business is the enterprise resource planning (ERP) system. ERP refers to the systems that allow the coordination of all separate functions of the retailer’s business. Main functions, such as marketing and sales, manufacturing and delivering times, product planning and cost tracking are often included in the ERP solution (Shtub & Karni, 2010).
The Customer Relationship Management system (CRM) refers to the system that stores all consumer data, such as contact information, shopping history and risk. Furthermore, the CRM system generates all offers and discounts provided by the store (YU, 2001). Therefore, if an optimal customer experience is desired, with personalized offers to each consumer the CRM system must be integrated with, POS, ERP and the self-scanning solution.

Other central systems that affect the retailers’ core business are Warehouse Management Systems (WMS) and Transportation Management systems (TMS). These two systems control the logistics and warehouse management, such as flow of materials, orderings of new products to the central warehouse and distributing them to the different retailers (Helo & Szekely, 2005).

Hence, the high level of integration of POS, CRM and ERP systems and the strong relations to the retailer’s core business, these systems demands heavy investments and carefully planning before they could be replaced or changed. Therefore, the actors providing these systems have a strong lock-in effect on its customers, which results in long business cycles of the product (Björkenlund & Ahlstedt, 2015).

The POS & ERP business

The complexity of the POS- and ERP- systems along with the capital required to provide them the market is dominated by a few very large actors that controls the majority of the market shares. The larger actors are Toshiba Global Commerce Solutions with a market share of 28 per cent, NCR with a global market share of 8 per cent and Wincor Nixdorf with a global market share of 7 per cent (Samaras, 2016).

Prior today the large POS distributors have provided the retailers’ with the whole package of POS hardware, software and external applications, such as self-checkouts, self-scanning and click and collect equipment. However, the variety in the business cycles of the different products has caused the POS provider to lag with the technical development of some of the external applications, such as self-scanning. To compare, the life cycle of a POS or ERP system is approximately 10 to 15 years whilst the life cycle of the external applications are three to five years (Interview E.1, 2016), (Englund, 2016). Hence, the retailers constantly demanding more sophisticated solutions to optimize business and customer experience a gap
has been created in the development of the external solutions. This gap has then provided business opportunities for other software companies that can keep up with the shorter business cycles and deliver innovative solutions that are integrated into the already existing POS and ERP systems (Englund, 2016), (Interview E.1, 2016) (Husain, et al., 2016).

The retail tree

To clarify the market structure, the POS, ERP, CRM and Self-scanning business can be illustrated by the retail tree, see figure 2. The POS, ERP, CRM and the hardware distributors “vendors” constitute the core of the retailers’ business, and therefore they are illustrated as the trunk of the tree. The providers of the external applications that could be integrated with the POS, CRM and ERP systems such as the self-scanning and click and collect products are illustrated as branches to the tree (Samaras, 2016).

![Retail Tree Diagram]

Figure 2: Illustration of the Retail Tree. The trunk illustrates the core systems a retailers uses with long business cycles of 10 to 15 years. The branches illustrate the external applications with shorter business cycles, 3-5 years. (Samaras, 2016)

2.1.2 Self-Scanning

A self-scanning device or application is a device which allows a shopper to scan one’s own items in the supermarket and then checkout automatically without the need of a cashier. In order to do this the self-scanning device requires an optical reader that can scan barcodes, a
display to show what have been scanned and a small memory or network connection that allows storage of the information scanned. The self-scanning device can in other words be explained as a small computer with an optical reader (Marzocchi & Zammit, 2006).

The self-scanning started in 1992 in the Netherlands with simple solutions intended to manage simple scanning operations. Today, every large supermarket chain in Sweden and many major chains in Europe have a self-scanning solution (Husain, et al., 2016). Even thou the main function of the self-scanning devices are the same today as it was 20 years ago the technical development has occurred rapidly. Today’s devices allows the consumer to keep control of the running total while shopping, get additional information about products and offers, get discounts and savings direct when scanning products in store, assurance of price accuracy and many more functions (Englund, 2016).

**Dedicated- or consumer owned self-scanning devices**

However, the rapid development and the increased use of smartphone devices that allows several external applications have come to affect the future of the self-scanning business. Hence, the self-scanning industry has now come to face a crossroad, were the retailers either provide a dedicated device or enables the consumer to use their own devices for the scanning operations (Englund, 2016) (Wincor Nixdorf, 2012). A joint study regarding this issue by Wincor Nixdorf and Motorola (2012) reached the conclusion that the most likely scenario is that the two devices will co-exist in the near future (Wincor Nixdorf, 2012). The remaining of the dedicated devices is depending on the ruggedness of the products and the dependability of them (Husain, et al., 2016). A scanning application in a smartphone is more likely to stop and malfunction than the scanning software in a dedicated device, mainly depending on that the smartphone is intended to do a variety of tasks, not just scanning. The sensitivity of the smartphone is another issue. Most dedicated self-scanning devices are constructed to resist falls from the waist and down whilst most smart phones will break from a fall from that level. Furthermore, the optical reader of a dedicated device is constructed to scan barcodes and can do so at a precise level, independently of how rough the surface is (Husain, et al., 2016). Smartphones uses the built in camera for scanning, which in some cases has problems with scanning small or dirty barcodes (Englund, 2016). However, in smaller stores for smaller purchases when the dependability and the ruggedness of the device are less important the smartphone is considered as a justified option (Wincor Nixdorf, 2012).
Previously most self-scanning devices have been built upon Windows CE 5 software with a limited user interface (Englund, 2016), (Husain, et al., 2016). The set-up of the coming solutions and devices are much like a smartphone and the operative systems (OS) has been changed from a windows platform to an Android KitKat based solution. The Windows CE OS has been around for more than 10 years and has proven a high level of dependability and the solution has been optimized for professional use. However, even if the development time of new applications in the Windows CE software is short there is a limitation in what applications that can be developed. Therefore, Windows has developed a new OS 10.0, which is also provided for free as the Android solutions. Android provides an open platform OS with far more possibilities for developing new functions and enables several swipe functions that can’t be made on the CE OS. The drawback with the Android OS is that it is new on the market and that it still has many child diseases, which lowers the dependability of the solution. However, due to the struggle with recent new releases from Windows, Android is the most promising OS (Husain, et al., 2016). Furthermore, since Android has been an open platform from the beginning many hardware vendors provide Android compatible solutions, which has reduced the price (Englund, 2016).

Creating customer experience

The main advantages with self-scanning has long been the efficiency and cost cutting aspects that it has provided for both the store and the consumers. Hence, the self-scanning allows the customer to check out by him or herself, no assistance from a cashier is needed, which enables savings of labor cost (Wincor Nixdorf, 2012). Moreover, the use of a self-scanning solution will reduce the pressure on the regular checkouts, which increases the throughput in the store during rush hour, which in turn increases profitability (Wincor Nixdorf, 2012). However, the late trend within self-scanning is to create an increased customer experience and to lock customers to the store. This has become increasingly important with the rise of completion from online retailing and the consumer desires of a more pleasant customer experience. Therefore the self-scanning business have reached another crossroad in determine if self-scanning applications should be efficiency or experience enhancing (Zebra Technologies, 2015). However, the two dimensions have shown to be closely related to each other. The fact that self-scanning solutions allows the retailer to remove staff from the cashier also enables the retailer to move staff into the store where they can help customers and promote sales, which benefits the customer experience. Another efficiency aspect is that the
pressure on the checkouts is reduced, which increases the customer experience by eliminating queue time (Wincor Nixdorf, 2012).

However, recent focus lies within more direct experience enhancing features. The current self-scanning devices can have built in store maps, which help the customer to allocate different groceries in the store, it provides the consumers with supply chain visibility by informing about specific products and where they are manufactured, and they allow direct marketing with specialized offers to each individual customer. Furthermore, the self-scanning allows the retailer to track the customer’s path through the store, which creates possibilities of improving the store set-up to generate more sales, but also to provide personalized offers on the products most desirable by the consumer. The functions and applications that can build in the new self-scanning systems are many, but that the future development of the solutions needs to generate an enhanced customer experience is certain. (Interview E.2, 2016), (Englund, 2016).

However, even thou self-scanning applications are favorable in many stores they require retailers to trust their customers with a device worth $ 300-500. The trust is often built upon loyalty programs that identifies each individual user and that the devices can be unlocked first when the customers swipes or scans the loyalty card (Englund, 2016). This make most retailers to trust in their customers, however in certain areas where the risk of theft is high and the customer loyalty low the use of dedicated self-scanning devices may be less favorable. Furthermore, the loyalty programs provided by the retailers that enable the self-scanning are also intended to collect a large amount of consumer data, which have to be stored and controlled by the retailers.

2.1.3 Click and Collect Services
The pick and collect services has gained an increased popularity on the market the last years and since it is related to the POS, ERP, CRM and self-scanning solutions it is worth mentioning in this thesis. However, since the main focus of this thesis is self-scanning solutions only a brief introduction to click and collect services is provided.

The entrance of the online stores has changed the way retailing is done today and opened up for new ways of shopping. The click and collect services are a combination of the traditional
retailing and the online retailing and makes the traditional supermarket to act as a distributor rather than a retailer. The meaning of click and collect is that the customer goes online and makes the complete purchase by clicking on the desired products. Later, the customer has two choices, either to pick up the groceries at the store or get them home delivered. The groceries has then been assembled and packed by the store staff and are ready when at the desired time for pick up/delivery. Since the order can reach the store at any time during the day the pick and collect system must consider each individual item packed, for instance if the order includes both frozen and fresh groceries (Deloitte, 2015), (Samaras, 2016).

2.1.4 Distribution Channels
The channels within retail are considered as the contact points between the retailer and the customer where a two-way communication can appear. The traditional channels included in the concept are physical stores with over the counter (OTC) communication, direct marketing such as catalogs and advertisement, and online websites (Rigby, 2011).

Multi-Channel
The multi-channel concept is about using more than one of these channels of communication to reach a variety of customers. However, under the multi-channel concept these ways of communications are considered to be separate and no interaction between them exists (Verhoef, et al., 2015). Since there is no interaction between the channels each one of them delivers a unique customer experience. This causes limitations to the concept in the way that one customer uses a channel depending on the experience that it delivers (Dholakia, et al., 2005). Cross channel use is the continuous development of the multi-channel concept and occurs when customers choose to use more than one channel of communication. However the different channels still delivers individual brand experiences. (Dholakia, et al., 2005)

Omni-Channel
The transformation from multi-channel to Omni-channel occurs when a unified brand experience can be seen in all different channels. Omni-channel is about complete integration of all systems to create one customer experience, independent of how the customer decides to reach the store (Rigby, 2011). A fully integrated Omni-channel system allows the customer to use multiple channels for one transaction. An example of this is when a customer chooses to order an item online to later collect and pay for it in the local store. This transaction demands
a complete integration of online and offline experience (Rigby, 2011), (Frazer & Stiehler, 2014). For being able to provide this the retailer must have complete integration of POS, ERP, CRM, TMS and WMS systems (Englund, 2016). Another important aspect with the Omni-channel retail is the possible merging of the digital and physical stores. Since customer desires the ability to purchase an item both online and offline these two different stores have become helpful to each other. The offline store can be used by the online shopper as a showroom for future purchases, whilst the online store may act as a watch room for the offline shopper. This co-existence of offline and online stores has shown to increase the total sales (Rigby, 2011). The above-mentioned interaction leads us towards the more important aspect of the Omni-channel concept, the customer experience. The transformation from single channel retail towards the Omni-channel approach can be seen in figure 3.

Figure 3: Illustration of the Omni-channel approach
2.2 Consumer Markets

This part provides an introduction to the current consumer trends in the food retail market and the future trends to come. The investigation is based on a thorough literature review where several reports from large research institutes have been revised.

2.2.1 Current Consumer Trends and Customer Experience

The common trend seen in the consumers shopping behavior is that people conduct an increased research before heading on with their purchases. This is an effect of the development of the e-commerce and the ease to gain information of several retailers’ offers. This has of course affected the sales of the traditional retailers and a decline in spontaneous purchases has been observed the last years (Zebra Technologies, 2015). However, in a recent market study of the consumer behavior by Zebra technologies (2015), customers still value the traditional stores and their customer experience.

Furthermore, the investigation shows that the customer experience has come to play a central role in the retail business today. People seek an increased amount of personalized offers that are tailored for one’s special needs. This development is experienced all along the retailers supply chain, from the product offerings a customer gets by email or standard mail to the marketing and promotion of products in the actual store. Examples of this is that a consumer might value products that has achieved great feedback or likes higher than products promoted with regular marketing, since the experience of the social media is more personalized (Zebra Technologies, 2015). The increased requirements of a personalized experience are seen in the success of different marketing solutions, the later development within the industry has proven that micro marketing on a local basis with more personalized offers is more successful than macro marketing with the same discount offers to all consumers. Furthermore, results from the investigation of Zebra Technologies (2015) prove that consumers believe that technology inside the supermarkets enhances the perceived customer experience. One example of that self-help technology, such as: self-scanning, self-checkout and price checkers improves the customer experience is that they make shopping more efficient by queue avoidance and more accurate product information (Zebra Technologies, 2015).

A major part of the customer experience is the customer service. The study of Zebra (2015) indicates that the customer service is becoming increasingly important for todays’ consumers.
This puts an increased pressure of the mobile and in-store channels of distribution. Hence, the customer desires the same service through all channels. The study shows that retailers that uses technological solutions such as hand held computers or mobile applications that provides information of product availability has greater potential for increased sales. This is based on that the in-store product availability is rated as the most determining factor for what the consumer will spend in the store (Zebra Technologies, 2015).

In order for retailers to create personalized product offerings and increase the customer experience they have to collect more consumer data. This has come to be revealed as the weak point of today’s retailers. Many customers have very low reliability regarding how retailers handle their personal information and cyber security has become of great concern (Zebra Technologies, 2015). This will if not handled properly limit retailers with a continuous development of the consumer experience.

In a recently conducted study of Smith-Bringham, et al., (2015) where they have investigated the personalization versus privacy paradox they present several findings related to the good and bad use of data, in terms of the perceived customer experience (Smith-Bingham, et al., 2015). As in the report by Zebra (2015) technologies Smith-Bringham, et al., (2015) has identified the same patterns that today’s consumers’ desires an increased customer experience. Furthermore, they have found the same key to create the increased customer experience by providing more personalized offers, tailored for the individual consumers’ needs. However, Smith-Bringham, et al., (2015) has focused more on the flipside of the personalization strategy, the intrusion of the consumers’ privacy.

Smith-Bringham, et al., (2015) argues that retailers today have more data than ever regarding their customers behavior and purchase patterns and the potential of creating the most sophisticated and tailored customer offerings has never been this high. However, still many retailers’ struggles with the balance on the personalization versus privacy paradox as 86 per cent of the consumers’ experience that the retailers mistreat their personal information (Smith-Bingham, et al., 2015).
As a part of the investigation Smith-Bringham, et al., (2015) suggest that the retailers can be divided into a four field framework with three main characteristics depending on their success in treating customer intel. These were, Favorites, Aspirants and Laggards

- The Favorites, the most prominent retailers that had successfully used the consumer information to create personalized and trustworthy product offerings. This category constituted 14 per cent of the total retail industry and their main success were found in the personalized product offerings, meaningful deals, responsive and caring customers service along with customer beneficial privacy options. These retailers often offered customers to control and have insight in their privacy data, which built a trust relation between the retailer and the consumer.

- The Aspirants, the largest group of retailers, 59 per cent was identified to belong to this category and their main strength was the successfully creation of personalized products and offerings. On the flipside of this segment was the ability to gain the customers trust of how its private data would be used. This was found to depend on a lack of or insufficient data handling practices.

- The Laggards, the group of retailers that had failed in both the product offerings and the data handling constituted of 29 per cent of the total retailers in the industry. These retailers produced irrelevant offers that were experienced by the customers as spamming and abuse of personal data. (Smith-Bingham, et al., 2015)

The investigation of Smith-Bringham, et al., (2015) also indicated on great geographical differences regarding how the personalization was perceived. In Scandinavia the perception of the personalization was very good and 100 per cent of the asked consumers were strongly positive to the concept of personalization. The perception in the North American market was also good and 78 per cent of the consumers agreed with the concept of personalization. The lowest support for the concept of personalization was found in the central part of Europe in countries such as Spain, France and Germany (Smith-Bingham, et al., 2015).

When the overall perception of personalization is good, why do retailers fail in delivering upon it? The study by Smith-Bingham, et al., (2015) shows that the failure foremost depends on four areas; lack of a single view of the customer, a climate of mistrust, customers unwillingness to share personal data and the consumers desire to control the data they share. The issues regarding the sharing of private data have previously been discussed but “the lack of a single view of the customer” remains to be explained. Retailers have developed several
channels of distribution and today consumers can purchase a product online, in store or throughout a mobile application. Almost every retailer has several of these channels and many have all of them, but still they fail to deliver the desired personalization. This is found to depend on that the distribution channels are managed as silos causing each channel to deliver a different view of the customer. Furthermore, the investigation states that only 6 per cent of the total retailers successfully deliver the same customer experience through all channels (Smith-Bingham, et al., 2015).

As a result of the investigation Smith-Bringham, et al., (2015) has identified some key factors for successful and less successful drivers of personalization of offerings. These are based on what the customers do and do not expect of the retailer. The customers expect the retailers to provide; personalized offers, products and services, loyalty programs that are useful relevant and simple, and personalized ways of communication. What the customers do not desire is; data security issues, intrusive behavior regarding private information, that data is shared to a third party, tracking and monitoring of ones movement within a store, and loyalty programs that collects too much personal data.

**Conclusion of consumer markets**

To conclude the two studies of Zebra Technologies (2015) and Smith-Bringham, et al., (2015) the personalization of offerings and products are of great importance to create the optimal customer experience, which eventually will lead to opportunities of increased sales. The major difficulties to achieve this increased customer experience is the practices for processing of data and to deliver the same experience throughout several channels of distribution. The main characteristics identified among those who have successfully created the desired customer experience can according to Smith-Bringham, et al., (2015) be divided into three categories. These are: Personalization initiatives where the customers are included in and in control of the process of handling private data, technology is used to create customer satisfaction, not just to enable it, and finally the personalization strategy has to be built upon solid management practices.

The future is therefore thought to be dependent on building the customers trust and according to the investigation of Smith-Bringham, et al., the trust will be given to the retailer that is
able to provide a prominent personalized customer experience and who simultaneously handles the consumer data with respect.

2.3 The US Retail Industry

This chapter provides an understanding of the current phase of the US retail industry and the main trends on the market. Moreover, it describes the assumed future changes that will occur on the market.

In the article Retailing 2020: Winning in a polarized world PWC has investigate the future outlook for the US retail industry and identified some key trends that will be of significant importance for the future development (Gildenberg, et al., 2012). Furthermore, the results have many similarities with the markets investigations from Zebra Technologies (2015) technologies and Smith-Bringham, et al., (2015) and the focus on how the technical development must be used to create individual and tailored offers that enhance customer experience.

Current phase

According to the Gildenberg, et al., (2012) investigation the US retail industry has reached a maturity phase were the previous development of large super centers and discount stores has come to stagnate. At the moment the US market is considered to be a concentrated marketplace with a few large actors that possesses a disproportionate large market share. The success of the large supermarket and hypermarket concept is obvious and large revenues are generated from these stores. The US retail environment, if compared to European can be considered to be lagging with a few years since Europe has begun to leave the maturity phase and enter the by Gildenberg, et al., (2012) called Post –Maturity phase. This means that the market development has turned towards a more differentiated market place, with smaller actors and a growing importance of local presence. According to Gildenberg, et al., (2012) this development is most likely to take place in the American market as well. The Post-Maturity phase will offer high levels of competition between large chains, limited square foot growth, higher requirements on private brands and individual marketing.
Future growth within the US retail industry

The development of the retail industry is believed to bring new dimensions of growth. Hence, future growth is likely to be found within several channels of distributions such as mobile distribution channels, Internet and traditional in-store sales. Furthermore, the price awareness created after the previous recession is believed to have a long-term effect on the consumers and therefore the future growth is predicted to appear within the discount channel. The increased use of mobile devices and the ability for constant connectivity will most likely lead to increased sales through internet and mobile channels, leaving the traditional stores with a great challenges in finding future growth (Gildenberg, et al., 2012).

US consumers, segments and patterns

The American economy is one of the most prominent in the world. However, the fragmentation of income among its citizens is more similar with a developing economy than other developed economies. This has created income classes so strong that specific retail channels have been developed to target each one of them (Milanovic & Gornick, 2015). Gildenberg, et al., (2012) has chosen to divide these consumer groups into three distinct channels, masstige, discounters and ultra-premium. However, in this report these groups are later referred to as regular, cost cut and premium stores.

• **Masstige**, refers to the retailers who target the mid-market. These retailers strive to find the perfect tradeoff between mass and prestige. Hence, the segment nickname, Masstige. The US market constitutes of a large consumer group living in the upper part of this segment, which leave great growth opportunities for retailers to target this specific group of consumers (Gildenberg, et al., 2012).

• **Discounters.** The large segment of low-income shoppers in the US market has provided great opportunities for discounters to grow on the market. This growth is believed to sustain since the income fragmentation is most likely to stay the same (Gildenberg, et al., 2012).

• **Ultra-premium.** This is the high end of the US consumer market, retailers who target this segment needs to use technology combined with high levels of service to reach customers where they are located and when they desire the service (Gildenberg, et al., 2012).
Drivers for future change in the US retail industry

In the market research of Gildenberg, et al., (2012) the key drivers for future growth within the US retail industry has been mapped. Some of them are highly interesting for this thesis, they are: speed of technology, shifts in demographics and shopping behavior, transparency and knowledge centric shopping and challenges to retailers’ economic models.

Speed of technology

The speed of the change related to the technological development is expected to increase in the future. The ability to store and use large volumes of data, referred to as Big Data, will become of even greater importance in the future retail industry. Retailers must be able to identify individual shopping patterns for being able to provide tailored offers to each individual customer. Moreover, in the future, consumers will put high requirements on the supply chain visibility. Meaning that a retailer must be able to track products and services throughout the whole supply chain. This is necessary for the future retailer to meet regulations, mitigate loss, and to provide product availability to the customers. To create this supply chain visibility an increased integration among POS and ERP systems is required (Gildenberg, et al., 2012), (Smith-Bingham, et al., 2015), (Samaras, 2016).

The study of Gildenberg, et al., (2012) shows that along with the technical development the requirements on a constant connection and communication will increase. Retailers must enter the world of smart devices and social media to catch the futures consumers. To be more precise, Gildenberg, et al., (2012) has chosen to explain this, using the marketing mix strategy and the four-P model.

- **Product.** As a part of achieving a higher customer experience tailored merchandising in the store at the shelf will become of importance.
- **Packaging.** Supply chain visibility and the increased knowledge about products will become of greater importance. Customers want to see products in use and availability in real time.
- **Pricing.** Based on previous collected data and purchasing history each shopper should be given offers suited for one’s specific need.
- **Promotions.** The promotions of the future will be tailored to each individual shopper. Promotions should be triggered by the customer’s presence while entering the store. One example of this could be digital price labels that shift prices and promotions when a
specific customer passes them. Sifts in US Demographics and consumer behavior, except from the changes caused by the technological development the transformation of the American society and the consumer trends will affect the development of the US retail industry. The US market is becoming more multicultural and the future marketing must target this group of multicultural consumers. As in other parts of the developed world, US will experience a growing population of citizens over 65 years old. This group of consumers will most likely desire traditional marketing, which forces the retailers to target each individual differently.

The gap between the low-income and high-income families in the USA is increasing as the middle class decreases. This will have an impact on the shopping behavior of these different classes. The low-income class is expected to use technological solutions such as mobile shopping to manage their purchasing decisions and achieve cost efficiency. The high-income class is expected to concern more about time efficiency and convenience (Gildenberg, et al., 2012), (Milanovic & Gornick, 2015).

The previous tradeoff between time efficiency, customer experience and low cost is believed to weaken in the future when technological solutions enables customer to achieve several of these aspects simultaneously (Gildenberg, et al., 2012), (Samaras, 2016). The study of Gildenberg, et al., (2012) predicts that in the future, shoppers will pay a premium for tailored offers and products that are adapted to each customer’s specific needs. Furthermore, the development is expected to occur within three main attributes, transparency and visibility, preservation and purpose. Transparency refers to that the customers’ desires complete visibility and knowledge about products and the supply chain. Preservation, the individual aspect referring to that the current health trend and self-preservation is expected to continue. Finally, purpose is the ongoing trend of responsibility and choosing products that are environmental friendly and fair-traded (Gildenberg, et al., 2012), (Englund, 2016).

*Transparency and knowledge centric shopping*

In the future the development and use of Big Data will have a larger impact on the retailers’ business models. The retailer must offer complete visibility towards the customer meanwhile the data security must stay a high priority to earn the customer’s trust. The increased amount of information and the easy access to it will affect the customers purchasing decisions.
Therefore, to stay successful in the future retailers must provide more an individually based pricing model defined by the customer (Gildenberg, et al., 2012), (Zebra Technologies, 2015).

Challenges to retailers’ economic models
As the growth in aggregated demand is decreasing retailers must find new ways of generating profits. The previous strategy, focusing on a certain margin and a certain volume of a specific product is on its way out. The lower growth in demand will force retailers to become more productive and compete on smaller space, which causes that the importance of each effective square foot in the store will increase. In the future retailers cannot build larger stores to generate higher profits, the profits must come from a higher sale/square foot (Gildenberg, et al., 2012).

2.3.1 The Boston Market
USA is a large country divided into 50 states and with around 320 million people (U.S. Census Bureau, 2015). The average American median household income is approximated to $53,482 per year, but when observing the distribution of income, the country is distinctly divided, see figure 4 (U.S. Department of Commerce, 2014). Additionally, it is seen that the Northeastern part, with exception from Alaska and Hawaii, has the highest household income.

Figure 4, Median household income USA in 2010, (U.S. Department of Commerce, 2014)
The studied area in this thesis is the Northeastern part, including the states of Maryland, District of Columbia, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island and Massachusetts. All of these states are listed above the median American household income, seen in table 1 (U.S. Department of Commerce, 2014). These states consist of approximately 60 million inhabitants, constituting ca 20 per cent of the total population (U.S. Census Bureau, 2015). Furthermore, seen in figure 5, the state of Massachusetts has a similar average income to the median of the studied region. (U.S. Department of Commerce, 2014) Hence, the reason for the sampling process was located in this area.

![Median Household Income By State - USD/year](image)

Figure 5, Illustrate the median household income in the Northeastern states compared to the average of USA, (U.S. Department of Commerce, 2014)

As the capital and the largest city of Massachusetts, Boston makes an appropriate location when narrowing the sampling area. The city’s population was estimated to 637,000 and the commuting area to 7.6 million people, making this area to the 6th largest combined statistical area of United States. Furthermore, Boston is the 4th most densely area with a 4980 people per square kilometer (World Population Review, 2015). Since this area is of high density a proportional amount of supermarkets exists to provide the habitants with groceries. The supermarket chains in Massachusetts that fits the delimitations are seen in table 1, which shows the amount of supermarkets in the whole state and the amount in Boston City center (within 20 km radius).
<table>
<thead>
<tr>
<th>Supermarket chain</th>
<th>Amount of supermarkets in Massachusetts</th>
<th>Amount of supermarkets in central Boston</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop &amp; Shop</td>
<td>129</td>
<td>9</td>
</tr>
<tr>
<td>Shaw’s</td>
<td>163</td>
<td>0</td>
</tr>
<tr>
<td>Market Basket</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>Star Market</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>IGA</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>Big Y Foods Inc.</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>Whole Foods Market</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>Hannaford Bros Co</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Roche Brothers Supermarkets</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Trader Joes Co</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Wakefern/Price Rite</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Price Chopper</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Save-A-Lot</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Aldi Stores</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Donelans Supermarket Inc.</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Crosby Markets Inc.</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Trucchi's Supermarket</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>NSA</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>A&amp;J Seabra</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Wegmans</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Super H</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Geisslers</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Adams Hometown Market</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C Town Stores</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>345</td>
<td>39</td>
</tr>
</tbody>
</table>

As mentioned earlier, in part 1.5 Delimitations, the northeastern business culture is similar to the European, making it easier for Swedish companies to establish within this market than in other states (Kjeldsen, 2012). The area of Boston consists of 54 schools of higher education and over 152 000 students, resulting in a young population (Statistics, 2016) (Meade, 2011).

### 2.4 Change Management and Acceptance of Technology

Several theories within change management may treat either individual change or organizational change. However, in this study focus was put on how change could be implemented at the retail organizations. In order to do that one must understand the individual’s perception of the change. The ADKAR model has proven to be preferable to use when the “how” aspect of change is investigated, referring to the actions necessary for making change to happen (Björkenlund & Ahlstedt, 2015). Hence, it is used in this study to
investigate the individual aspects that affect change. Furthermore, closely related to change management is the degree to which individuals accept new technology. Davis (1989) created a framework in which the acceptance of technological solutions (TAM) could be evaluated. Thus, this section of the thesis combines insights from both the ADKAR and the TAM frameworks.

2.4.1 ADKAR

ADKAR is a change management model that focuses on understanding change on the individual level (Hiatt, 2006). The model is built upon five blocks that must be fulfilled by the individual for change to take place. These are, *Awareness, Desire, Knowledge, Ability and Reinforcement* (Hiatt, 2006).

**Awareness**

The first block is awareness, referring to the individual’s knowledge of a change and why it is necessary. In order for change to take place, the individual must be aware of why change is happening, the possibilities with it and the risk of not changing. Therefore, managers or influencers that desire a change must educate the individuals about the change to create awareness. Hiatt (2006) argues that it is critical to meet the individual’s need of understanding why things happen. Hence, he suggests that four questions can be used in order to ensure the individuals awareness of change, these are: “*Why is change necessary?*”, “*why is change happening now?*”, “*what is wrong with what we are doing today?*” and “*what will happen if we don’t change?*” (Hiatt, 2006).

**Desire**

Hiatt (2006) argues that one of the most common mistakes when implementing a change is the mindset that the creation of awareness simultaneously creates the desire for change. However, the individuals in an organization might be aware of the change but not willing to take part of it because they don’t desire the outcome of it (Hiatt, 2006). Moreover, Hiatt (2006) suggest that four factors should be considered when creating the desire for change, these are: the nature of change, the environmental and organizational context of change, the individual’s personal situation and the individual’s motivation. The first factor, the nature of change, includes what the change actually is and what impact it will have on the individuals. To fulfill the first factor, the one who implements the change must put meaning to the
question “what’s in it for me” to the individuals’ (Hiatt, 2006). Secondly, the environmental and organizational factors of change, focuses on the individual’s perception of the surrounding organization. Examples of environmental factors that influences the individuals’ desire to change is the current level of change, the outcome of historical changes and the culture towards change within the organization. The third factor within the desire block is the individual’s personal situation, which referrers to the economic situation, the health, the family and the education of the individual. The individual’s perception of the change is constituted on the current situation the individual are in. As an example, if the individual has low knowledge about the area or products that are implemented the desire to implement them might be lower. The fourth and final factor is the personal motivation of the individual. The personal motivation unique to each individual in the organization and what an individual is willing to do strongly depends on what the individual is motivated by (Hiatt, 2006).

Knowledge
The third block in the ADKAR model is knowledge and refers to the “how” aspect when implementing change (Hiatt, 2006). When the awareness and willingness exists within the individual one must know how to perform the actions to complete the change and how to use the system or product that has been changed. As an example Hiatt (2016) mentions a man who has a dream of becoming a sailor, when the man is aware of why he wants to sail and has the desire to do it the only thing missing is the knowledge of how to sail. When the knowledge has been acquired the man successfully can start the fulfillment of the dream (Hiatt, 2006). Furthermore, Hiatt (2006) argues that the knowledge aspect of ADKAR is dependent on four factors, these are: the current knowledge that the individual already has, the possibilities and the capacity for the individual to gain new knowledge, the training and education resources that are available to the individual and the individual’s access to the needed knowledge (Hiatt, 2006). Therefore, the one implementing the change must consider the knowledge of each individual and if the individual needs further knowledge in order to use the changing element the implementer must make sure that the necessary tools for learning is provided to each individual.

Ability
When the awareness, desire and the knowledge of the change exist, the only remaining factor is the realization of the change. Hence, the fourth element of the ADKAR model, ability, is about the capability of implementing the change (Hiatt, 2006). Furthermore, Hiatt (2006)
suggest that several factors have an impact on the individual’s ability to implement the change, these are: psychological factors, physical factors, intellectual factors, time frame and the availability of resources. Meaning that the individual must be psychical prepared and confident in realizing the change and that possess the necessary skills in doing so. If the individual is not ready for the change it is likely that it will not take place even though awareness and desire exists. Furthermore, the individual must be given time to change and provided with the necessary resources to enable the change (Hiatt, 2006).

**Reinforcement**

When change has been successfully implemented, one element of the ADKAR model remains, that is the reinforcement of the change (Hiatt, 2006). The main purpose of the reinforcement element is to ensure that the individuals within the organization stick to the change and feels motivated to do so. Therefore, the reinforcement aspect refers to recognition and reward of the individuals’ participating in the change. Hence, the meaning of the change must be reinforced for the individuals’ continuous participation of it (Hiatt, 2006).

However, for the ADKAR process to begin the change must first be identified, meaning that the one who influences the change must know what the current change is (Hiatt, 2006). The five blocks of the ADKAR model can be seen in figure 6 below.
2.4.2 TAM
The Technology Acceptance Model (TAM) was developed by Fred D. Davis in 1985 and has been widely used to explain the factors determine why individuals accept and do not accept new information systems (Davis, 1989). The framework is built upon two major blocks that determines the acceptance, these are: perceived usefulness (PU) and perceived ease of use (PU).

**Perceived usefulness**
The perceived usefulness was by Davis (1989) defined as “the degree to which a person believes that using a particular system would enhance his or her job performance”. In other words, people will use technological solutions that they think will increase efficiency in daily operations. This aspect is highly comparable with the pervious mentioned ADKAR model and especially its second founding block, Desire. People will not desire a solution in which they don’t see clear benefits in, nor will they use it. However, the ADKAR model approaches the dilemma from an earlier point with the Awareness aspect.

**Perceived ease of use**
The other more essential factor, the perceived ease of use was by Davis (1989) defined as “the degree to which a person believes that using a particular system would be free of effort”. This definition tells that people will not use a system which they don’t understand or needs to put too much effort in understanding. Furthermore, this aspect is strongly recognizable in the ADKAR model’s blocks regarding Knowledge and Ability. Hence, the degree of effort that one has to put in for understanding of and being able to use a certain technology is strongly dependent on the knowledge one possesses. Furthermore, factors such as resources, physical condition and time included in the ability block will most certain have an impact on the individual’s perception of how much effort that one must put into a change.

**Summary of the ADKAR and TAM models**
The ADKAR model can be considered as a pure change management model, meaning that it focuses on change from a broad perspective. On the other hand, the TAM model can be considered as an applied change management model hence it puts empathizes in one particular area, technical acceptance of information systems. However, both models touch upon the same fundamentals of change. Thus, both models were considered to be of value to this thesis.
2.5 Marketing

This part of the thesis handles the marketing theories relevant to the area of research, more specifically theories regarding relationship marketing and industrial marketing.

2.5.1 Relationship Marketing

The marketing mix (MM) with its four P’s (product, price, place & promotion) has been the paradigm of marketing since the 1960’s. However, it has been criticized by many for being uncompleted and contributing with low value to companies that works with services and industrial marketing (Grönroos, 1999), (Gummesson, 1994), (Waterschoot & Bulte, 1992). Furthermore, the Marketing mix has greater focus on transactions than on building long lasting relationships between supplier and customer. Transaction marketing means that the selling focus is unchanged and unrelated to whether the customers are old or new. Companies that create high-technological solutions, with a business-to-business approach have long sales cycles making them strive for long lasting relationships. Thus, the transaction based marketing in MM is not a beneficial course of action for these companies (Grönroos, 2000).

A more suitable marketing approach would be the relationship marketing (RM). This type of marketing started out in the 1970’s and has increased in importance ever since. The major difference between the two marketing techniques is that the RM bases its methods on management instead of transactions, see figure 7. Believing in well-managed relationships will result in a constant flow of purchases, exchanges as well as transactions. There are several definitions regarding RM, but they all point in a similar direction. The one chosen in this research is the one stated by Grönroos (2000).

“The purpose of relationship marketing is to identify and establish, maintain and enhance, and when necessary terminate relationships with customer and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by a mutual exchange and fulfillment of promises” (Grönroos, 2000)

Business-to-business (B2B) differs from business-to-consumer (B2C) when it comes to RM. For example, it is often difficult for an end-consumer to establish a long lasting relationship with a company, since there are a limited amount of things a consumer can offer. Mainly a consumer can offer money, loyalty over time and positive word of mouth (Arnould, et al.,
2002). On the other hand, B2B, compared to B2C, is a more complicated process with larger volumes and more time consuming deals (Zinkhan, 2001). Therefore, RM ends up more valuable to B2B companies than MM.

According to Gummesson (2008) there are four fundamental basics of RM distinguishing it from MM.

1. **Marketing-oriented management**: An organization has a sales- and marketing department, which communicate frequently with customers. This department is stated as full-time marketers. However, everyone within the supplying company who has communication with customers, such as service or support, is of importance regarding marketing. Gummesson (2008) refers to these as part-time marketers and explains that the entire organization needs to align. Hence, the marketing-oriented management.

2. **Long-term collaboration and win-win**: A long-lasting relationship needs to be profitable for both customer and supplier. Therefore, a win-win mentality needs to be established between the both. A win for the supplier is to maintain an already existing customer. Moreover, a win for the customer is to receive a valuable product or service, which contributes to their customers. (Gummesson, 2008)
3. All parties should be active and take responsibility: When establishing a relationship between a customer and a supplier, the salesperson is the key of a successful relation, depending on the customer’s trust in the salesperson. Nevertheless, it is important for everyone involved to take part in the procedure. (Gummesson, 2008)

4. Customer focus: Since the customer is the foundation of revenue a supplier’s main mission is to create value for the customer. Hence, the main priority of the supplier should be to focus on the customer. (Gummesson, 2008)

Influences of RM

In order to create competitive market offers companies develop different competition views, such as traditional competition, hierarchical competition and strategic network competition. These networks differ from each other, which is described by Hunt and Morgans in the article “Relationship Marketing in the Era of Network Competition” (1994).

Traditional competition

In figure 8, a traditional view of competition is demonstrated, in a context of a supply chain. The traditional competition view sees the rivalry horizontal between all the different levels in the chain. In the traditional setting each company competes by themselves. For example, in the case that is stated in figure 8, a manufacturer competes with other manufacturers, the suppliers compete with other suppliers and so on. This view of competition creates several advantages: Every company have an intense focus on their core activity, Companies have ideal positions to take advantage of economies of scale, Better ensures efficiency of market prices because all companies negotiate for themselves, The capital investment for each company is kept to the absolute minimum, All companies can adapt quickly to changes. For example, if a new solution becomes the paradigm for a part of the car. All other manufactures can quickly swish suppliers to gain it. (Hunt & Morgan, 1994)

This kind of competition increases a company’s efficiency, productivity and the capability for being dynamic. However, a traditional competition view has some drawbacks as well, such as high costs of transaction, less control, opportunistic thinking, problems with planning and coordination. (Hunt & Morgan, 1994)
Hierarchical competition

Hierarchical competition describes companies that have developed a structure where they owned all or several parts of the supply chain, see figure 9. The reasons for a company to compete with this competition view are:

- Lower cost of transaction
- Never being the victim of an opportunistic supplier or vendor
- More control over the supplies and assets necessary
- More control over coordination of different operations and activities
- Increase the accuracy of planning

This type of competition view has been used of several large corporations in order to lower costs and to gain an increased control over operations. However, the drawbacks of such integration involve; poorer knowledge of specific details, lower price strictness when manufacturing components and less control over flexibility and adaptability. (Hunt & Morgan, 1994)
Strategic network competition

A more modern and favorable competition view would be to combine the best of and avoid the disadvantages of both traditional and hierarchical competition views. This result in a theory of Thorelli (1986), which is called the strategic network competition, see figure 10. This view is based on individually owned and managed firms that create a network of partners. The networks success is strongly tied to how well every actor performs. Hence, the network needs to develop mutual goals to enhance striving for cooperation. The partners included in the network need to coordinate activities regarding purchasing, production, marketing, finance and R&D. Even if every actor is individually owned, the activities for cooperation needs to be performed so that the boundaries becomes blurry between the different partners, seen in figure 10, by the dotted lines. Additionally, when a network succeeds all firms involved gain important benefits from partners they normally miss out on. (Hunt & Morgan, 1994)
The trend amongst firms is to turn away from short-term transaction relationships towards more long-term relationships with distinct partners (Shelby D. Alt, 1994). Shelby Alt, (1994) argues that the popularity of RM has occurred by the rise of strategic network completion view. (Hunt & Morgan, 1994)

Strengths and weaknesses with Relationship Marketing

If a company manages to have a successful long lasting relationship with their customers, they will not need to invest as much in marketing as if the company had a transaction strategy. Hence, they do not need to focus as much in finding new customers and instead the supplier and the customer can enhance their collaboration. With more frequent communication and if trust is strong, the close relationship can eventually be developed into a partnership. This can increase profitability since a partner can help with enhancement of quality and efficiency (Stone, et al., 2000). Even if a close successful relationship is built, there are several other factors influencing the result. However, from a marketing point of view RM allows the supplier to better understand and influence their customers’ needs, which in return helps the supplier to direct the offerings. Another positive aspect of RM is that if a customer is pleased with the supplier, they can become a part time marketer and spread the
positive feedback by word of mouth. The supplier will both enhance their relationship with the customer and their brand. Once in a well-established relationship with a customer, properties such as trust, commitment and availability are valued higher than a low price.

Building a long lasting relationship, including all success factors mentioned above, is an attractive concept. Nevertheless, it is very theoretical. To implement RM in practice is challenging. As Zinkhan (2001) states, relationships with a potential customer are costly to build, depending on the time consuming process and the amount of resources that are needed. Further stated is that RM seems more efficient than hunting potentially individual transactions (Zinkhan, 2001).

**Success Factors in Relationship Marketing**

How should one know how to succeed with RM? In a report by Shelby D. et al, (2006) a research of the question has been done. The indicators measuring the success have been analyzed to further identify the underlying factors. The eight indicators that had the largest influence are seen in figure 11 below.
1. **Relational factors**

The relational factors are the fundamentals in building a successful relationship. These factors are divided into relational and discrete exchanges. The discrete exchanges have a definite procedure involving anonymous parties. Relational exchanges have an indefinite procedure involving parties that already know each other for a longer period of time. The latter includes six factors increasing success in RM. These are: *trust, commitment, cooperation, keeping promises, shared values* and *communication* (Hunt, et al., 2006).

2. **Resource factors**

Resources are defined as the assets of a firm, both intangible and tangible, that increase the efficiency of their market offerings. Each firm has an exclusive set of resources, which are diverse across the organization. To create a successful relationship firms must complement each other’s resources. Furthermore, idiosyncratic resources are noticeable to succeed in RM. Idiosyncratic resources refers to the resources created through relations. (Hunt, et al., 2006)

3. **Competence factors**

The competence factors are described as a way for the firm to achieve goals. To know how one’s resources can be used in an efficient way by aligning competences throughout the relationship. To improve the firm’s RM-based strategy the alliance of competence with other firms must be well structured. To succeed, the firm needs to recognize the right resources and involve them in the alliance. Since this often involves “know-how” that consists of tacit knowledge, it makes knowledge management a key ingredient of the alliance of competences. Another competence factor is the market-relating capability, which is a result of three components (Hunt, et al., 2006). These are:

- “*An organizational orientation that makes customer retention a priority and gives employees, as an overall willingness to treat customers differently, wide latitude to satisfy them.*” (Hunt, et al., 2006)
- “*A configuration that includes the structure of the organization, its processes for personalizing product or service offerings, and its incentives for building relationships.*” (Hunt, et al., 2006)
- “*Information about customers that is in-depth, relevant, and available through IT-systems in all parts of the company.*” (Hunt, et al., 2006)
If a firm creates a successful market-relating capability this could generate a sustainable competitive advantage, since it is very hard to imitate for competitors. The last competence factor is the relationship portfolio management, referring to how a firm manages all its relations. Every relationship has to contribute to make the firm more efficient. (Hunt, et al., 2006)

4. **Internal marketing factors**
This factor emphasizes the importance of the part-time marketers within the company. The employees play an important part in succeeding with RM. Therefore, their needs and wants should be satisfied to increase performance within the internal market orientation. (Hunt, et al., 2006)

5. **Information technology factors**
For a firm to be successful in RM the theory claims that cooperative relations are driven by vast amounts of knowledge and technology sharing among partners. Hence, this requires companies to implement inter-organizational information systems, helping firms to create organizational processes that share both knowledge and its use. It is also important that all parties that are involved are equally a part of this process. (Hunt, et al., 2006)

6. **Marketing offering factors**
Market offering factors could be of value for building relationships. Hence, creating a market offer might increase the value for one other firm. For example, in the retail industry, suppliers and retailers exchange favors to access more favored market offers. These market offers are divided in two, tangible and intangible. A tangible example could be a motorcycle offering a powerful engine or breaks. An intangible example could be to offer installment or insurance for the motorcycle. Subsequently an increase of value to the chain is created, developing longer lasting relationships. Being successful in these factors, more individual and reliable offers to the end consumers could be perceived. Due to the customized solutions, one appears more innovative and unique. It is stated that innovative market offerings factors are likely to be more successful, have greater market shares, create new opportunities and achieve goals within sales and profit (Hunt, et al., 2006).
7. **Historical factors**

Developing a successful relationship is time consuming. Long lasting relationships are built on historical interactions and depending on behavior, future relations will be affected. Managing the historical factors properly creates opportunistic behavior, past benefits of the relationship and high termination costs. Having a too opportunistic behavior could influence a long-term relationship. Since opportunists tend to be deceit orientated, they violate against the commitment of the relationship, complicating future price negotiation. Another historical factor is the past relationship benefits. In contrary to the opportunistic behavior, this factor contributes to the relationship in a positive way. Partners that deliver great benefits are more valuable to other partners, forcing them to commitment. Moreover, termination costs refer to all the expected costs that are related to the termination of a relationship. Hence, the costs will increase continuously throughout the relationship, making dissolution expensive. (Hunt, et al., 2006)

8. **Public policy factor**

Being successful in RM occasionally requires firms to cooperate with partners in order to stay competitive. However, public policies such as regulation and laws could interact with this kind of cooperation. Changes in rules regarding inter-firm relationships might have a vigorous effect on the success of the relation. One example of a type of regulation preventing inter-firm relationships is antitrust laws, which stops companies from collaborating in order to establish monopoly. Hence, success within an inter-firm relationship is dependent upon how officials perceives and responds to organizations collaboration. The legal infrastructure consists of two main areas, exchange within property law and contract law. Where contract law treats the rules and procedures regarding an exchange of an object and property law addresses the rights regarding both tangible and intangible objects. (Hunt, et al., 2006)

**Conclusion of RM**

For a company in a B2B environment with long sales cycles, RM is preferred compared to other marketing strategies. This depends on several reasons, such as: to better understand their customer, create a more holistic market offer and save costs form expensive marketing. Firms use RM in order to become more competitive. Successful relationships with the right
partners could contribute to the firm’s capability to increase their efficiency and create better market offers, resulting in more value for in the targeted market segment.

2.5.2 Industrial Marketing

Frederick E. Webster and Yoram Wind became two pioneers within the topic of industrial marketing when they in 1970’s built the foundation to industrial marketing and how organizational buying is managed (Webster & Wind, 1972), (Webster, 1978).

In the article *A General Model for Understanding Organizational Buying Behavior* (1972), Frederick E. Webster and Yoram Wind suggested a framework for industrial and institutional buying behavior. They viewed upon the buying decision as an organizational decision making process that is influenced by several more important factors, such as the individual decision maker and the influence from his or her surrounding organization (Webster & Wind, 1972).

The influence from the organization was explained to be dependent on four main variables, the individual, the social, the organizational and the environmental variable. Furthermore, each of these variables can be categorized into two sub characteristics, task and non-task. The task variables are explained to be directly related to the buying process, whilst non-task variables are related to the social and surrounding activities connected to the process (Webster & Wind, 1972).

Webster (1978) referred to the industrial marketing and the organizational buying process to be a complex arrangement between the purchaser and the seller, not a one-way transaction of a product as in consumer marketing (Webster, 1978). Furthermore, they defined the organizational buying process as a problem solving process where the organization choose to purchase a product if it solved the organizational problem, which was referred to as a *buying situation*. The part of the organization that was in charge of this process was called the *buying center*. The members of the buying center are all involved in the decision making process and according to the theory they can be divided into five roles: *user, influencer, decider* and *gatekeeper* (Webster & Wind, 1972), (Webster, 1978), (Bonoma, 2006).
• **User**

The user is considered as the person or the department that are intended to use the purchased product. This is often the department signing the purchasing decision but not the one who makes it.

• **Influencer**

The influencers are defined as those who can influence the decision makers and affect whether a purchase is made or not. The amount of influencers varies with the extent of the purchasing decision and can include everyone from a mechanic that is intended to use the product to shareholders in a public company.

• **Decider**

The deciders are those who are entitled to say the final yes or no to a specific purchase. These persons are often senior management that together agrees on the decision. However, one or several of these managers often has the final word, which the others follow. Even though the deciders make the decision, they do not sing the deal, which is left to the purchasing department.

• **Gatekeeper**

The gatekeeper is the one controlling the flow of information into the buying organization. Gatekeepers are paid to ensure the quality of the offers from the vendors and to control that only the most relevant ones reaches the decision makers. The gatekeeper may be titled as buying or purchasing officers but can also be a product expert or a person with specific knowledge related to the specific purchase. (Webster & Wind, 1972), (Webster, 1978), (Bonoma, 2006).

The model further suggests that the members of the buying center are motivated of both individual goals and common goals set by the organization. The organizational influence is coordinated throughout various tasks as: structure, technology improvements and the people in the organization. Furthermore, the surrounding environment including factors such as economic development, legal, political and cultural factors then influences the organization (Webster & Wind, 1972).
Environmental influences

These are the external factors that influence the entire organization and the business the organization participates in. As mentioned earlier, environmental influences consists of four major factors; economic, legal, political and cultural. The environmental factors affect the underlying organization in four ways:

1. *Supply and availability of goods*

   The economic development along with technical improvements will determine the supply and the availability of goods (Webster & Wind, 1972).

2. *Business environment*

   The business environment will depend on the economic environment. Hence, unemployment, national income and interest rate will have great effects on the customers’ ability to purchase products and the competition on the market (Webster & Wind, 1972).

3. *Define values and norms within the industry*

   The environment and the industry will affect the values and norms among competitors, buying organizations and selling organizations (Webster & Wind, 1972).

4. *The flow of information into the organization*

   The environment in which the organization works controls the information flow that reaches the organization itself. This refers to the flow of information distributed through mass media, other commercial information channels and individual channels (Webster & Wind, 1972).

Webster (1978) explains that environmental factors often are overlooked in the assumption of that they are too basic. However, this is a crucial mistake, since the environmental factors are a key determinant in the organizational buying behavior (Verhoef, et al., 2015) (Webster, 1978).

Organizational Influences

The organizational factors are described as the factors that affect the individual decision makers to act differently to what they would do if they were on their own, without the presence of the organization. These factors are dependent on the organization’s goals and its financial, technological and human resources. The organization’s influence on the individuals
in the buying center is explained with four major variables; task, structure, technology and people. Firstly, task, refers to what has to be done to reach the objectives set by the organization. Secondly, structure, is how the workflow and the reward system within the organization is managed. Moreover, this aspect handles the management structure and the distribution of authority within the organization. Thirdly, technology refers to the technological assistance that the organizations have access to, such as computers and machinery. Finally, people, is the people in the organization and their personal influences on the organization (Webster & Wind, 1972).

**Buying tasks**

In Webster and Wind’s theory (1972) the buying tasks are an outcome of the organizational structure that defines how the purchasing problem is solved. They suggest that these tasks, which are defined as pure task variables, can be divided into a five step process; identification of need, establishment of specifications, identification of alternatives, evaluation of activities and finally, selection of suppliers. Furthermore, the organizational buying process and the buying tasks are explained to depend on four major dimensions. First, the organizational purpose refers to why the product or service is purchased. The product can either be consumed by the organization or used for facilitating production. Secondly, the nature of demand is the source of the demand, which can be generated by the organization itself or by external forces that influences the organization. Third, the extent of programming refers to the structure of the five step purchasing process, if the process is ran on routine and structured practices or if it is dependent on current decisions. Finally, the degree of decentralization is the foundation to the organizational authority and refers to the extent of decision-making that has been given to one single individual (Webster & Wind, 1972).

**Organizational Structure**

A major part of the organizational influences is the structure of the organization itself. Six aspects in the organizational structure that has a significant impact on the purchasing decision are defined as: communication, authority, status, reward and workflow (Webster & Wind, 1972).

- **Communication**

  This is how the communication is managed within the organization, how information is distributed and how commands and instructions are delivered. It is essential for the
marketer to gain knowledge about this system to reach the right point of contact (Webster & Wind, 1972).

- **Authority**

  The authority system refers to how the authority within the organization is distributed, who has the final word and who makes the purchasing decisions. Moreover, the authority within the organization also relates to how goals are set and evaluated. In the eyes of the marketer with the intention to sell to the organization, this aspect should be highly valued (Webster & Wind, 1972).

- **Status**

  The status aspect explains how the responsibility and authority are distributed among the individuals within the organization (Webster & Wind, 1972).

- **Reward**

  The reward system is connected to the accomplishments of the decision makers. These rewards are set after the organizational goals and are an important aspect in how motivated the decision maker is to work against these goals. The system is based on both economic and noneconomic factors that enhance the decision maker’s performance (Webster & Wind, 1972).

- **Workflow**

  The workflow refers to how the paperwork and purchasing processes are managed within the organization. Which routes the decisions has to take and in which order they has to be taken. Knowing this structure helps the marketer in addressing the right person (Webster & Wind, 1972).

**Technological impact**

The current technology used by the industry and organizations has a great impact on the buying decisions. The level of technology will determine which buying actions that can be used and what analysis that could be done before the purchasing decision. Furthermore, the marketer must take the technological aspect in consideration when new products are introduced to customers, since the product may require technical improvements, which the organization not is able to acquire (Webster & Wind, 1972).
Conclusion and other perspectives within industrial marketing

The theories of Webster and wind still dominates the literature within industrial marketing and are considered most relevant today, 40 years after their first appeared in the literature (Johnston & Lewin, 1996). However, other perspectives on industrial marketing exist and some extensions to the frameworks created by Webster and Wind have been developed.

Firstly, Thomas V. Bonoma suggests in the report *who really does the buying* (2006) an extension to the buying center presented by Webster and Wind, by complementing the framework with the roles of an *initiator* and a *purchaser*. The initiator is referred to the one who recognizes the problem that could be solved by the purchasing of a product. A senior manager or a user that seeks efficiency within a process often possesses this role. The *purchaser* is described to have a similar role to the user and is often constituted of the department intended to use the product and the department signing the deal. However, just as in the user role, the purchaser has little say in the purchasing decision (Bonoma, 2006).

Moreover, the theories of industrial marketing and industrial buying behavior that has been mentioned in this thesis focuses on one side of the transaction made between the purchasing organization and the seller. However, other theories suggest that both sides should be observed, both the buying organization and the selling organization in order to identify the relationships related to purchasing decisions. This way of analyzing suggests that more emphasizes in analyzing, communication, conflicts, negotiations and power between the buyer and the seller (Fliess, et al., 2015).

Hence this thesis intended to provide guidelines of how the retail market could be targeted focus were put on one side of the transaction between the seller and the buyer. Therefore the extended version of Webster and Wind’s model of analyzing the buying center was used as a framework for analysis in the discussion.
2.6 Entry Mode Theories for Foreign Market Establishments

This part of the report provides the reader an understanding of basic entry mode theories and how these can be applied. This is done by showing relevant factors and a framework, which results in different entry modes.

The most common reason for firms to expand their business into new markets is the growth potential it provides (Ghauri & Cateora, 2010). According to Gaba, et al., (2002) and Gallego, et al., (2009) firms expanding internationally will face three major questions that must be taken into consideration, these are:

- What market to enter?
- How to enter the market?
- When to enter the market?

2.6.1 What Market to Enter?

Starting with the first question, *what market to enter?*, firms that expand abroad needs to create an understanding of which markets that is attractive for them. Determining which international market a firm should expand into can be analyzed from a classical retailing approach. The factors discussed in this theory are called ‘push’ and ‘pull’ (Pradhan, 2009). Typical ‘push’ factors will push a firm to expand abroad, examples of this can be that domestic market is saturated or there is new regulations affecting the business of the firm. A ‘pull’ factor will contain attributes that make a foreign market attractive (Pradhan, 2009). The list below consists of mayor factors that should be of consideration for a firm before selecting a market:

- **Proximity of the domestic market:** When a firm expands into a new market many take into account how close it is to the domestic market. This is in terms of supply chain and logistics
- **Similarity in culture:** The cultural factor has a significant impact on the possibilities for doing business and building efficiencies in the brand
- **The size of the market:** This aspect refers to questions as how big is the market? and how many potential customers exist in the market?
- **The laws and regulations:** What regulations differ from the domestic market and will it affect the attractiveness of the new market?
• **Trade relations between the countries:** How is the trade relationship between the domestic and the country of interest? Is there any trade agreements? Tariffs or quotas

• **Local actors in the market:** Which competitors exist? How strong are they? (Pradhan, 2009)

There are other models of approaching new market, for example Ghauri & Cateora (2010) claims that the establishing chain model is to prefer. This is because it states that firms should gradually develop their operations abroad, starting with the markets that is closest to the domestic market, meaning both the psychic (cultural and environmental) and geographical distance. This is a preferable model for expanding when the timeframe is long since it let the firm’s growth to be gradual. However, the drawback is that one can miss out on the opportunity that opens up in a new market. Hence, IT-solutions for the retail industry are in a stage of fast development the choice of the classical retail approach is preferable (Salsberg, et al., 2012).

2.6.2 How to Enter the Market?

When the firm has decided which market they want to enter, they have to investigate how they will enter this market. In the article of Hill, et al., (1990) they have created a framework that unifies factors and put them into context, making the decision more structured. There are several different ways of how a firm can enter a new market, nevertheless they are related to ether non-equity contractual mode (licensing), equity-based cooperative venture or a wholly owned subsidiary (Pan & Tse, 200). These entry modes generate altered amount of control, committed resources and risks within the entered market. The choice of an entry mode is essential for the success of the whole operation of entering the new market. Another possible framework for choosing entry mode built upon similar variables is presented by Anderson & Gatigon (1986). Nevertheless, this framework focuses too much on transaction cost alone, resulting in a too narrow view. Therefore, the framework from Hill, et al., (1990) was chosen in this study.

**Amount of Control in Entry Modes**

Choosing a mode of entry will give different amount of control in future operation. Control is in this study referred to the ability of taking operational and strategic decisions. The highest amount of control is achieved when entering a market with a wholly owned subsidiary.
Although the subsidiary firm is given control over the daily operations, the parent company in the domestic market does have the ultimate decision-making power. A joint venture may differ in the amount of control depending on how many parties that is involved and the structure of ownership between them. In events of decisions, control needs to be shared with the partners. In the case of a licensing, control over the decisions regarding strategic and operational decisions is low. This is because the licensee is granted these types of decisions in exchange for payment. Terms of control can be written into the contract restraining the licensee. However, this is not likely to be embraced by the licensee. (Hill, et al., 1990)

**Resource Commitment in Entry Modes**

Every entry mode will require a different amount committed resources. In this study resource commitment is referred to as assets deployed, which cannot be used in another way without causing costs. Entering a new market will require at least some assets, this can be both intangible and tangible. The level of resource commitment in the case of a wholly owned subsidiary is high, depending on that the parenting company will bear all of the costs relating to setting up operations. In the case of a joint venture the resource commitment will depend up on the structure of ownership and also the agreements among all of the partners. In the case of licensing the level of resource commitment is low. The firm’s engagement is limited to involve training the licensee and observing for any contract violation. (Hill, et al., 1990)

**Dissemination Risk in Entry Modes**

The dissemination risk is in this study referred to as the chance of losing the firm’s competitive advantage in specific know-how. This know-how is often regarding technology or marketing. Enter a new market with wholly owned subsidiary will provide the lowest risk the entry modes. The know-how will most likely remain inside the company because of the environment created of the organization fosters employee loyalty. Nevertheless, there is a possible risk of key employees with firm specific know-how quitting and start working for competitors. A joint venture poses a higher dissemination risk than the wholly owned subsidiary entry mode. The risk of being expropriated of a partner is considerable, however not as high as in licensing. In the entry mode of licensing the dissemination risk is the highest. The licensee can expropriate a product and use the know-how to another purpose than originally intended. A sum up can be viewed in table 3 (Hill, et al., 1990)
Table 2: Process of determine the entry mode, (Hill, et al., 1990)

<table>
<thead>
<tr>
<th>Entry Mode</th>
<th>Resource</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Commitment</td>
</tr>
<tr>
<td><strong>Wholly owned</strong></td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td><strong>subsidiary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Joint venturing</strong></td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Licensing</strong></td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Deciding Which Entry Mode to Choose**

The decision of choosing entry modes is further divided into three main variables, called strategic variables, environmental variables and transaction-specific variables, seen in figure 12. The strategic variables focus on the amount of control a firm need when entering a new market. The variables focusing on how many resources a firm need to commit into such a project is called environmental variables. The transaction-specific variables center both the dissemination risks and amount of control. (Hill, et al., 1990)

![Figure 12: Variables affecting the entry mode decision, (Hill, et al., 1990)](image)

**Strategic Variables**

1. Global Strategy
2. Multi National Strategy

**Environmental Variables**

1. Country Risk
2. Location Familiarity
3. Demand Conditions
4. Volatility of Competition

**Transaction Variables**

1. Value of Firm-specific know-how
2. Tacit Nature of know-how

Strategic Variables

First of all, a firm that is aiming to expand into new markets need to choose an expanding strategy. In this framework there are two types of strategies, global and multi-domestic. The global strategy is built upon economies of scale, having a centralized production and
marketing. It is common to offer a standardized product to a global market, which allows cost cutting and the creation of cheaper offers. However, a firm that enters a new market with a global strategy requires a high control entry mode (Hill, et al., 1990). A multi-domestic strategy is more or less the opposite, basing its strategy upon that every market is different (Hill, et al., 1990). Every market has altered conditions for competition, operations, and consumer preference, social, political and legal structure. If a firm chooses this strategy they will need to handle vital strategic and operational decisions in every national subsidiary. Hence, different structure of every market will require less degree of control for the parenting company, proposing licensing or a joint venture as a cheaper mode of entry (Hill, et al., 1990).

**Environmental Variables**
The environmental variables can further be divided into country risk, location familiarity, demand and competitive situation. All of these variables will impact the resources committed and strategic flexibility when entering a new market.

*Country risk* is the risk related to a hosting country regarding four factors, these are: transfer risk, operational risk, ownership/control risk and political risk. Transfer risk involves control of remittance and inconvertibility of currencies (Root, 1987). Operational risk refers to the content which the local market requires. Ownership/control risk refers to intervention and expropriation risks. Political risk is involving risks regarding instability of political system. If the country risk is considered high a firm should consider having low resources committed and increase the ability to exit a foreign market. Hence, if risk is high firms should limit their potential losses of the resources deployed, suggesting joint ventures or licensing (Hill, et al., 1990).

*Location familiarity* refers to the perceived distance between the domestic and entering countries economic system, business culture and business practices. Shorter perceived distance will increase location familiarity. The perceived distance is a combination of the actual distance to the market and a firm’s earlier experience with the local business culture. The further distance between the markets, the more probability a firm is to have an entry mode of licensing or a joint venture (Hill, et al., 1990). Hence, having poor knowledge of location familiarity often involves a low resource commitment (Hill, et al., 1990).
If the demand situation for a firm’s products is unknown in a foreign market this firm is less likely to invest in resources for this market. Thus, a less costly entry mode is preferable. However, if the market is more mature it is easier to predict demand increasing the firms deployed resources (Hill, et al., 1990).

A competitive market situation with several actors will influence the choice of entry mode. A market with rapidly shifting technologies, regulations, social factors and demographics is called volatile. These kinds of market circumstances will force an entering firm to be a fast adopting to fluctuations limiting sunk costs. Hence, if the market situation is volatile it is preferable to choose an entry mode which requires low resource commitment (Hill, et al., 1990).

**Transaction-specific Variables**

When entering a new market, transaction cost theory emphases the meaning of firm-specific advantages in know-how compared to other actors within the market. If the transaction costs are nonexistent the entering firm would be better off with a licensing entry mode, avoiding costs. Anyhow if the licensee gains access to these advantages in know-how the licensing firm is more exposed to the risk of opportunistic thinking, meaning that the licensee can use this knowledge in a different purpose then the licensing firm intended. This type of argument can also be applied on a joint venture. Nevertheless, the entering firm can protect itself by using broad contingent claims contract, concerning rights and obligations between the parties. These types of contracts can still only provide partial insurance. In a world of economic players of opportunistic thinking these agreements can be difficult to obtain. Strong contracts must be drafted, negotiated, monitored and enforced, resulting in substantial costs for the entering firm. If the potential loss of opportunism from a licensee or a venturing partner is expected to be higher than the cost of a contract, the entering firm should consider an entry mode of a whole owned subsidiary. An important parameter is the quasi-rents (temporary economic rent) that the entering-firm can profit from its proprietary know-how. If the quasi-rent streams are lucrative, there is a greater possibility for an entering firm to choose an entry mode with less dissemination risk (Hill, et al., 1990).

Additionally, there is another parameter affecting the transaction cost variables. A firms-specific know-how is in many cases tacit knowledge meaning that it is difficult to transfer
knowledge between companies and individuals. This kind of knowledge is often rooted in firm specific routines, operations and human capital. Even in licensing or a joint venture with a partner it is difficult to transfer tacit knowledge. Thus, if a licensee or partner have opportunistic thinking it is still hard to take advantage of this knowledge. The greater parameter of tacit know-how an entering firm has, the more likely they are favoring a high control entry mode. Hence, for example a licensee may not be able to generate the quasi-rents in the same extent as the firm with the tacit know-how. (Hill, et al., 1990)

This framework provides recommendations of what entry mode a firm should choose when entering a new market. Thus, it takes the vital variables into consideration and generates a structured and logical way to making the decision. However, this framework is structured from a Multi-National Corporations (MNC) perspective, which could in some sense be different from smaller firms. Anyhow, the construction of the framework is still relevant for all firms, hence it focuses on generable variables (control, resources commitments and dissemination risk). One should not view the result in isolation, instead it should be taken into consideration with the firm’s overall strategy.

2.6.3 When to Enter the Market?
Timing is a vital factor when a firm wants to expand into a new market. According to Lilien & Yoon (1990) timing is the most important factor to determine whether a firm will succeed or not in a new market. To decide a favorable timing, several internal and external factors are taken into consideration. In the article of Gaba, et al., (2002) these factors were presented as if they was defined by different sub-factors. The factors are listed below.

**Firm-specific Factors**

*Level of internationalization:* Internationalization is referred to the degree of participation a firm has in international markets. Firms with high level of internationalization with several overseas operations and engagements can benefit from these experiences and also engage their existing network. These firms can more easily use their gathered experience and knowledge to faster enter a newly opened market. They can support with cross-subsidize and neighboring operations, enforcing the success in the newly opened market. However, there is no guarantee that a firm can leverage the success from one market to another. Nevertheless,
they are more likely to enter a new market earlier than a firm with a lower level of internationalization (Gaba, et al., 2002).

*Size of firm:* A firm size refers to its power in the market, both in a domestic and international sense. Larger sized firms have greater capabilities to aggressively expand into new markets because they have a larger amount of resources to deploy (Gaba, et al., 2002). Furthermore, their capability to stand risks is larger compared with small sized firms. Therefore, large sized firms have a better possibility to enter the market with a good timing (Gaba, et al., 2002).

*Scope economies:* The scope economies are divided in two categories, the width of products (and services) and the ability of creating synergies within the product portfolio. It is shown that firms with a wide product portfolio tend to enter the new market earlier than actors with a narrow product portfolio (Gaba, et al., 2002).

**Industry & Market Factors**

*Competitor behavior:* Within markets with competition characterized by uncertainties and high risks, competitive behavior is common. To define the meaning of competitive behavior, the subject is divided into two arguments. First, firms have a tendency for not doing their own calculations, instead they justify their actions upon their competitors. If a competitor enters a new market other firms observe and take actions to enter, believing they will gain a fast profit. Second, there is a fear amongst firms that they either will miss the opportunity or that the first entering company will build barriers preventing them to enter. The timing of a market entry is influenced of the behavior of the competition. If competitors enter a market, it will accelerate the entering decisions for other firms to enter the same market (Gaba, et al., 2002).

*Product market growth:* A market with high growth potential is of course interesting for a firm to enter. The potential of growth indicates that a firm can grow fast and make substantial profits, which is very appealing. An appealing market with great potential of growth will accelerate firms to enter that market (Gaba, et al., 2002).
Host Country Factors

Risk conditions: There is always a risk when entering a new market, this type of risk refers to the hosting markets political and legal situation. A firm thinking of entering a new market should consider this very careful. Thus, the less level of risk a firm will enter a new market earlier (Gaba, et al., 2002).

Mode of Entry:
The timing of when to enter a market is dependent upon which entry mode a firm select. Entry modes can be divided into two types, equity and non-equity mode. A firm with a non-equity mode does not need to invest resources into the new market. This will make it easier for management to take decision upon an entry or not because they have less to lose. Thus, firms entering market with a non-equity mode will be faster than a firm with an equity mode (Gaba, et al., 2002).

As Lillien & Yoon (1990) claims, being successful with timing, one need to weight the risk of a premature entry against the opportunity missed of a late entry. To arrive late to the market reduces the risk of failure since investments can be focused on designing a better product instead of marketing. However, a late arrival may result in missed out opportunities since competitors already have gained large market shares (Lillien & Yoon, 1990).

If the timing is wrong four out of five firms will fail with their market entry (Horn, et al., 2005). Thus, the factor mentioned above are in the study of Gaba, et al., (2002) pointed out as the most important for increasing the chance of entering a market with good timing.
3. Method

This chapter of the thesis presents the methods used for collection of data and the methods used to analyze it. It also handles the sampling process, the validity and reliability of the research.

In this study an inductive case study approach was used to investigate the need of self-scanning solutions within the Northeastern American food retail market. A case study is by Robson (2002) defined as a research strategy that involves an empirical investigation of a single phenomenon in its real life context, using multiple sources of evidence. The approach was suitable since the study focused solely on the retail market related to, and the self-scanning solutions provided by, the commissioning company Datema. Furthermore, the use of a case study is recommended to answer question of what and why (Saunders, Lewis, & Thornhill, 2009), which was of particular interest for this research. The inductive research approach was chosen since empirical real life data was collected and analyzed with the intention to develop a strategy. The strength of the case study is supported by the use of multiple methods for data collection, such as, various interviews and observations. The case research was constructed as a single case study, since the phenomenon investigated was unique from Datema’s point of view, by focusing solely on technological solutions within food retail. According to Yin (2003) a single case study can be conducted within two dimensions, holistic or embedded. This case study was of a holistic type because the unit of analysis, Datema, was treated as whole organization, ignoring the different sub-units.

3.1 Literature Study

Critically reviewing the literature within the field is of great importance to catch up with previous research and to increase awareness of the subject. Additionally the literature review helps to ensure the area of contribution (Blomkvist & Hallin, 2015). In this study several areas of research was investigated in the literature review, these were marketing strategies, organizational factors, entry mode theories, change management, domestic markets, IT-services and solutions, Omni-channel retailing and customer experience. This was done constantly during the project-work to ensure the validity of new findings and the study itself.
The consumer trends within the North American retail industry had recently been investigated by several research institutes, management bureaus and vendors, which had left a great supply of literature that could be used to create an understanding of the consumer base. Furthermore, the literature review has been used to answer the first research question of this study "What are consumers’ requirements on technological solutions?".

3.2 Collection of Data
This market study was based on qualitative research methods. First, qualitative studies in terms of market observations were performed in order to find the possible trends and desire to investigate. According to Saunders, et al., (2009) this is helpful when the second part of the research is designed since the areas of investigation will be known. Later when trends and desires had been identified, in-depth interviews were conducted with retailers and experts engaged in the business in order to find how changes could be implemented to create optimal customer experience (Saunders, et al., 2009).

3.2.1 Pre-Study
The pre-study was designed to provide an initial understanding of how self-scanning solutions was used in a Swedish supermarket. Moreover, the intention was later to use the insights from the pre study in the preparation of the market observations. The pre-study was conducted at ICA Kvantum Värtan, which is a large supermarket located in the central part of Stockholm, Sweden. The design of the pre-study is seen in Appendix 1.

3.2.2 Market Observations
The intention with the market observation was to get an understanding of how digital mature the different retailers was and how the consumers behaved in the store. Since, the observations consisted of two parts, one concerning the digital level of the supermarkets and another concerning the people in the store two types of observation methods was used. These are referred to as, participant observation and structured observation. This part of the investigation was constructed to answer the second research question "What are the retailers’ current perception and level of technological solutions?"

Participant observation is a qualitative method, which focuses on why people act as they do, whilst structured observations is a more quantitative method focused on how many times a
specific pattern or action is repeated (Saunders, Lewis, & Thornhill, 2009). In the participant observation, several roles can be taken by the researcher depending on how the interaction with the persons investigated is carried out. In this part of the study the intention was to find out the different checkout options in the supermarket, therefore the role applied was the role of a complete observer. The complete observer is not a part of the group investigated and observes the people investigated from a distance outside the group (Saunders, Lewis, & Thornhill, 2009). This was done by visiting all the larger supermarkets and observing the general behavior of the people sopping at these stores, which provided an understanding of and how people used the existing technological devices. These observations were noted under “other observations” in Appendix 2.

Furthermore, to determine the overall technical level of the supermarkets in Boston, a structured observation was conducted. The structured observation is suitable for determine the precise frequency of certain patterns in order to design a general view of the market. This can either be done by applying an existing framework of analysis or constructing own criteria, which suits the specific needs of the individual research (Saunders, Lewis, & Thornhill, 2009). In this research criteria’s has been constructed to fit the specific research questions.

In this part of the research all supermarkets (that fit the delimitations) in the central part of Boston was visited and an evaluated after a strict framework where the existing digital solutions where mapped, among these were: Self-scanning, self-checkout, WIFI, Loyalty programs and DIY equipment. The precise structure of this observation is seen in Appendix 2.

Except from observations concerning the digital maturity of each retailer, observations in terms of store structure and market niche was conducted. The intention of this was to map the supermarkets within different categories, covering premium stores that targeted the top end consumers, regular stores that targeted the middle segment and cost cutters that targeted the low end consumers. This part of the study increased the understanding of which solution that would be applicable in a specific supermarket.
3.2.3 Interviews with Retailers and Experts

To understand the retailer's view of the existing technological solutions, the future use of these and the future development of them, semi-structured interviews were conducted with store managers from each supermarket chain (that fitted the delimitations) in Boston. Semi structured interviews are preferable for the creation of an understanding of the relationship between different variables investigated (Saunders, Lewis, & Thornhill, 2009). These interviews’ were constructed with partly open ended questions, which were repeated in each interview. This allowed the retailers to express their own thoughts about these technological solutions and why they were suitable or not in the store. This part of the investigation created an understanding of the differences and similarities between the retailers’ and the consumers’ requirements and desires. The layout of the semi-structured interviews can be seen in Appendix 3.

In-depth and unstructured interviews are important to gain information about un-explored phenomena and to build a foundation for more quantitative questions. Furthermore, they give the opportunity of deep research in specific areas. Since in-depth interviews have a low degree of standardization the reliability can be questioned and results obtained by one interviewer may differ from the results gained by another. However, In-depth interviews are heavily affected by the personal interaction between the interviewer and the interviewee and the way questions are asked have a large impact on the information collected (Saunders, et al., 2009). Henceforth, to investigate the future development within the Northeastern American food retail market, in-depth interviews were conducted with experts from the hardware and software suppliers. These interviews where constructed with open ended questions, which gave the interviewee great room for explaining and expressing one's thoughts about these solutions and what one thought the future trends within the business would be. Additionally, these interviews did open up for investigation of partnership possibilities with the different actors. Furthermore, in-depth interviews were also conducted with management consultants specialized in foreign market establishments to connect the literature regarding entry modes with practical knowledge. This part of the investigation was constructed to partially contribute to answer the second and third research questions: “What are the retailers’ current perception and level of technological solutions?” and “How can Datema target this market?”
3.3 Path towards Conclusion

In order to fulfill the purpose and reach the aim of this study the results obtained in the methodological approach was used according to figure 2. Firstly, the results obtained from the market observations and literature review was used to create the consumers’ view of self-scanning solutions. Secondly, the semi-structured interviews with store managers were used along with the ADKAR framework and industrial marketing to complete the picture of the need for self-scanning solutions on the Northeastern American food retail market. Thirdly, the results from the unstructured interviews along with theories in relationship marketing created the view of the actors market, referring to those who provide technological solutions to the food retail industry. Finally, the holistic market view was studied with the use of theories within industrial marketing, relationship marketing and entry mode strategies to provide guidelines of how Datema should target the market.

3.4 Sampling

The selection of participants in this study was done in different ways depending on the area studied. Hence, two ways of sampling was used; probability sampling and non-probability sampling. Probability sampling, also referred to as random sampling is when individuals are
randomly selected to represent a large population. Non-probability sampling or selective sampling is when specific individuals, who represent a specific group within the population are selected (Saunders, et al., 2009). In this study the non-probability sampling was used to select the supermarkets in which the market observations was conducted and with which store managers the interviews where performed.

3.5 Reliability and Validity

Reliability and validity are important measures to ensure the quality of the study. Reliability refers to the ability to obtain the same results if the study is repeated. If the same result is obtained several times the reliability is considered high. On the other hand, validity refers to how well a test or investigation actually measures what the study intended to measure (Saunders, et al., 2009). In this study validity is assured by data triangulation, which is done by using several methods of data collection. In this study the triangulation process consisted of in-depth interviews, market observations, a literature study and semi-structured interviews.

Since this research was conducted as a case study, focusing solely on Datema and on the Boston area, the repeatability of the study may be affected if it is conducted with another company or in a different city. However, the differences between the different cities on which the result are generalized are expected to have a small impact on the result, see section 3.3.1. Therefore, the study is considered to be reliable.

Moreover, the interviews with the store managers were done individually, which might have caused a variation in the results depending on the personality of the different interviewees. Hence, this study is qualitative and not quantitative the conclusions drawn out of these interviews should be considered as indications rather than statistical facts. Since the interviewees in this study has been offered anonymity the transparency of the result will be limited to generalized conclusions from each interview, which in turn might affect the reliability (Saunders, Lewis, & Thornhill, 2009). However, the effect of this has been reduced since interviewees have been considered as roles rather than individuals. Therefore the result should be less affected of each individual’s personality.
As earlier mentioned the validity aspect in this research is assured by the triangulation of the results, first the market observations show the actual existence of the digital solutions in the supermarket. Then the interviews with the store managers’ gave an explanation to why the specific solutions exist. This along with a thorough literature review and interviews with the current manufactures of the digital equipment provides an understanding of the current need of technological solutions, such as self-scanning applications.

3.6 Generalizability
Since this research was conducted as case study the generalizability of the results is limited. Firstly, the research is constructed for one company only, which makes the results obtained in this study hard to applicate to other companies in other businesses. Secondly, this research was conducted in the commuting area of Boston and the results is considered as partly generalizable in the northeastern region of USA, but not in other parts of the country where the cultural and income differences are larger.

3.7 Ethics
To ensure that the conducted research is ethically approved Blomkvist and Hallin (2015) suggests that the four principal requirements of the Swedish Research Council can be applied. The first requirement, the information requirement has been assured by informing each interviewee or participant in the investigation about the purpose of the investigation. Furthermore, all participants in the investigation have agreed to do so and no one has been forced or fooled to participate, which fulfills the second requirement regarding the consent of the investigation. All interviewees and individuals have been given the opportunity to be anonymous in the investigation and sensitive information that might put individuals at risk has been handled confidentially. To ensure the protection of personal information no names, age and gender of the interviewees has been stated in the report. This ensures the third principal requirement, confidentiality. Since all interviewees and participant that has either shared information through interviews or distribution of data through other channels has been informed about the true purpose of the study, as well as all data has been used in the intended way as it was presented to the participants, the fourth and final confidential agreement of good use was assured.
4. Results

In this section of the thesis the findings obtained from the pre-study, market observations, semi-structured interviews with store managers and unstructured interviews with market experts are presented. An overview of all interviews can be seen in Appendix 7.

4.1 Results from Pre-Study

The results from the pre study indicated that middle age male shoppers represented the largest group of self-scanning users, see figure 14. Moreover, almost 25 per cent of the shoppers who entered the store used the self-scanning solution, see figure 15. The more intangible results obtained in the pre study was that the use of the self-scanning solution tend to increase in rush-hour. This was observed since the usage (in per cent) increased when the time moved towards 17.00 when the store began to fill up. Furthermore, the main bottleneck found was the check-out, which did not run smoothly and caused irritation among the customers. The complete structure of the pre-study is seen in Appendix 1.

![Figure 14: Age and gender distribution of self-scanning users](image1)

![Figure 15: Amount of visitors that used the self-scanning solution](image2)
4.2 Results from Market Observations

The Boston food retail market was dominated by five major chains (if delimitations were considered), these were: Trader Joe’s, Market Basket, Whole Foods Market, Stop and Shop and Shaws/Star Market. The different supermarket chains could be differentiated by the consumer group they targeted. Three different store types were identified, those who targeted the high end consumers with premium stores, those who targeted the middle class with regular stores and those who targeted the lower middle class with discount stores. These differences were seen in the store assortment, quality of products and pricing. Detailed explanations of the different store structure are seen in appendix 6. The digital maturity between the stores differentiated a lot and only one supermarket chain had self-scanning devices and not more than two chains had self-checkouts. In total there were 2 out of 33 stores that had installed a self-scanning solution and 9 out of 33 that had a self-checkout system. Further indications of the digital maturity of the retailers were the WIFI access. 23 out of 33 stores had WIFI that was accessible to all customers. However, in most cases this solution was very slow and hardly usable. All stores visited had do it yourself equipment (DIY) referring to price scanners where the customers could scan and control the price of different products. However, the breakthrough of this solution was depending on a state law that required it, otherwise it was required to have an individual price tag on every single product in the store. Only one out of 33 stores had DIY equipment that was not required by the state law. That was Stop and Shop who had a digitalized solution for deli orders, where the consumer could pre order deli products through a digital counter and continue shopping whilst the order was assembled.

A major similarity between all the chains was the staff allocation. In all stores staff was evenly distributed in cashiers and at the retail space. Many stores offered the customer bagging at the check-out.

Only one supermarket chain, Stop and Shop used a loyalty program where consumer data was collected in order to personalize offers and for analyzing consumer behavior. Three out of five supermarket chains had a mobile application, which could be used to generate digital coupons. A summary of the more statistical results from the market observations is seen in table 6 below.
Table 3: Statistics from market observations

<table>
<thead>
<tr>
<th>Supermarket chain</th>
<th>Number of stores visited in Boston</th>
<th>Store concept</th>
<th>Number of stores with self-scanning</th>
<th>Number of stores with self-checkouts</th>
<th>Number of stores with WIFI</th>
<th>Number of stores with DIY equipment</th>
<th>Staff allocation in store</th>
<th>Loyalty program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trader Joe’s</td>
<td>4</td>
<td>Cost cutter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4 with price scanners</td>
<td>Several</td>
<td>No</td>
</tr>
<tr>
<td>Market Basket</td>
<td>3</td>
<td>Cost cutter</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3 with price scanners</td>
<td>Several</td>
<td>No</td>
</tr>
<tr>
<td>Whole Foods Market</td>
<td>9</td>
<td>Premium</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>9 with price scanners</td>
<td>Several</td>
<td>No</td>
</tr>
<tr>
<td>Stop and Shop</td>
<td>9</td>
<td>Regular/premium</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>9 with price scanners, 1 with deli ordering system</td>
<td>Several</td>
<td>Yes</td>
</tr>
<tr>
<td>Shaws/Star Market</td>
<td>7</td>
<td>Premium/regular</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>7 with price scanners</td>
<td>Several</td>
<td>No, but has a mobile application</td>
</tr>
<tr>
<td>Price Rite</td>
<td>1</td>
<td>Cost cutter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 with price scanners</td>
<td>Mostly at cashiers</td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>Segregated market</td>
<td>2</td>
<td>9</td>
<td>23</td>
<td>State law requires price scanners.</td>
<td>All has a large distribution of personnel</td>
<td>Only stop and shop has a loyalty program</td>
</tr>
</tbody>
</table>

4.3 Results from Interviews with Store Managers

These interviews were conducted as semi-structured interviews where all store managers were asked the same questions. The exact structure of the interviews can be seen in Appendix 3.

4.3.1 Trader Joe’s

*Interview 1.1*

This interview was done with a captain of Trader Joe’s, which was equal to the store manager position at any other supermarket chain. This interviewee had been captain for this store for several years and had worked in a total of six Trade Joe’s stores.

According to the interviewee the key to success of this store was low prices and a great customer interaction. The store had a strong focus on delivering a special customer experience and had a strict Hawaiian theme, where all employees were dressed in Hawaii shirts. The theme was further strengthening by funky music that was played all the time. When discussing the major threats in the future, the store captain mentioned that the parking
lot is full during the Sunday rush hours and that it might ruin a part of the customer experience, which in turn might cause people to order foods online instead of visiting the store.

The store captain had negative view upon technological solutions and explained that “the major problem with them is that they never work which ends up in a bad customer experience”. Furthermore, the captain thought that the technological solutions were a threat to the customer interaction, which Trader Joe’s valued highly. However, the captain mentioned that technological solutions that provided a better supply chain visibility were welcome. Overall, Trader Joe’s was technically behind and had decided to be so, instead they had chosen to invest in good people that interacted with the customers and thereby provided the best service. The same reasoning was used when discussing loyalty program and the store captain explained that the reason to not have one was that it destroyed the natural shopping experience and customer interaction. Instead Trader Joe’s strategy was to provide low prices to everyone. This was made possible by having own brands and own agreements with all distributors and manufactures. Nine out of ten of Trader Joe’s products were labeled with the own brand.

When asking about the consumer base, the store captain explained that it consisted mostly of returning customers, where the majority of them were families and students that lived nearby the store. Furthermore, it was explained that the customers who visited the store desired low prices and a unique customer experience.

4.3.2 Market Basket

*Interview 2.1*

This first interview with Market Basket was conducted with an assistant store manager that had worked within food retail and Market Basket for 17 years.

On the first question, regarding the key success factors of the store the manager pointed out that those were the low prices, the loyal workers with many years of experience and the customer interaction. These aspects were further seen while discussing the future challenges within the industry, where completion from new actors was mentioned as the main threat.
According to the store manager, Market Basket should fight this threat and keep customers loyal by maintain a good customer interaction and low prices.

When discussing technological solutions the store manager clarified that Market Basket had very few of these and that solutions such as self-scanning and self-checkouts was not a thing for Market Basket. Once again the importance of the interaction with the customers was mentioned and the threat of that technology would remove it. However, the interviewee mentioned that the store had handheld scanners for inventory purpose that allowed the staff to check the inventory levels, but to put similar devices in the hands of the customers was not of interest. Furthermore, when discussing the possibilities with a loyalty program the store manager explained that Market Basket wanted to provide the lowest price directly to all customers, therefore a loyalty program was not of interest. The store manager did not think that using more technology in store could reduce shrinkage, rather that it would increase.

The store manager mentioned that the consumers of this Market Basket store were very loyal and that both employees and customers had returned for many years. Some of the cashiers had worked in the same checkout for over ten years.

**Interview 2.2**

The second interview with Market Basket was with a store manager that had over 41 years of experience within North American food retail and who had been store manager for this particular store for 1.5 years.

The main success factors of this store were described to be the low prices and the great customer service. As an example, the store manager mentioned that the store, compared to many other supermarkets, always bagged the customers groceries. Further mentioned was the importance of having a great assortment and a large variety of products. When discussing the future challenges within the business the interviewee pointed out that it was to keep customers in store when competition from new and other actors increased. To succeed with this Market basket had to maintain low prices and a good customer service.

While discussing technology and the possibilities with it the store manager explained that they were in phase with technology and that the store was quite high tech. However, when
solution such as self-scanning, self-check outs and mobile loyalty programs were mentioned the interviewee had very limited knowledge within the area. Moreover, when the manager had been told about these solutions a negative view upon them quickly appeared and the store manager later explained them as a threat to the customer interaction and service.

The store manager explained that among the current technological solutions that existed in the store were inventory scanners that allowed the staff to control the inventory level and see if there were any waiting orders for the product. However, no interaction between the inventory and the POS system existed and all orders had to be done manually. The store had no loyalty program and the strategy was to provide the lowest price directly to all customers. Instead of providing coupons and discounts through a mobile application this store had flyers that could be found in the store or sent to the people living in the neighboring area, this was something that the store manager considered as a great service that differentiated the store from others.

When the consumer base was mentioned the store manager explained that this store had over 60 000 visitors a week and that many of these were returning customers that desired low prices and good service.

4.3.3 Whole Foods Market

Interview 3.1

The first interview with Whole Foods Market was conducted with a store manager with over 30 years of experience within North American food retail and 20 years’ experience within Whole Foods Market.

The main success factors of this store were by the store manager described to be the customer interaction and the qualitative and healthy products. Furthermore, the variety of products and a large take away department was mentioned as key success factors of this store, mainly depending on its central location. The store manager explained that to create a good customer experience, the store had invested in staff that was good in customer interaction and that team meetings were held at each department. The purpose with the team meetings was to discuss how each department could improve their customer experience. The importance of the customer experience was further seen when the future challenges to the store were discussed.
and the store manager once again mentioned that it is all about having a great customer experience, “if the customers are satisfied they will return to the store.”

While discussing technological solutions the store manager mentioned that the main possibilities with these were to increase the efficiency in the store. One example mentioned was that if the store had automated inventory the staff could interact with the customers more and thereby increase the customer experience, instead of doing the inventory manually. Furthermore, the store manager mentioned that electronic price tags would be desirable since all price updates then could be managed from the office computer. However, such an investment was not possible at the moment. While discussing technologies, such as self-scanning and self-checkouts the store manager thought that these might be a threat to the customer interaction, which was described as very important for Whole Foods Market.

Moreover, the store manager explained that Whole Foods Market had started to implement a common POS system that should be used by all stores all over the country. This POS system should also be linked to the ERP system and to the inventory management so that orders are generated automatically when the stock runs out. The store manager also mentioned that the store had a collaboration with Acart that allowed customers to order food online from the store and then get it home delivered. However, when the set-up of this system was observed it seemed very old fashioned and the Acart staff entered the Whole Foods store with a printed customer order, picked it up and checked it out at a special counter that looked exactly like a regular cashier.

The store manager explained that Whole Foods Market currently was piloting a loyalty program in some states and that it hopefully would be integrated into more stores. At the moment the store had a mobile application with standardized offers that were the same to every customer.

When asking about the consumer base the store manager explained that the majority of the customers were returning customers who lived or worked in the neighborhood and that they returned to the store due to the great variety of products and lunch options.
**Interview 3.2**

The second interview with Whole Foods Market was also held with a store manager, but this interviewee had started off in restaurant business and then switched to Whole Foods Market, mainly depending on the stores qualitative products and good working conditions.

When asking about the main success factors of this store the manager explained that the key was to provide qualitative and organic food. Furthermore, the store manager explained “*today people want healthy choices, which brings them to Whole Foods*”. The store manager also described that the challenge of generating profits in the future depended on how well the store could deliver a good customer interaction and customer experience along with providing qualitative and healthy products. A benefit that the manager mentioned was that the city of Boston was becoming more expensive, which forced people to move to the suburban, which in turn increased the sales in this particular store.

When discussing technologies such as self-scanning and self-checkout systems the store manager expressed that the customer interaction was of great importance and that these devices might be a threat to that. Moreover, the manager mentioned “*no customer should be able to walk through the store without meeting a single employee*”. However, the interviewee explained that the technological solutions could be business developing and that a loyalty program was currently being tested. The store manager seemed optimistic about the new loyalty program and mentioned that it would help preserving customers in the future.

Regarding the consumer base the interviewee mentioned that the store had many returning customers but that it also gained new ones during special holidays. This was explained to depend on that when people go shopping for the holidays they wanted the best food possible. Hence, they went to Whole Foods Market. The task was then to keep the new customers returning to the store.

4.3.4 Stop and Shop

**Interview 4.1**

This interviewee was store manager for a larger supermarket in a nearby suburban to Boston city that had over 40 years of experience within US food retail. According to the interviewee the key success factor of the store was to generate high sales by providing good product
quality and especially by having a good meat counter. The interview explained that the key to a successful business during the last decade has been the quality of the meat counter and that it still was today. Furthermore, the interviewee explained that the major future challenges lied within the increased competition from online stores with home delivery and that the key to fight this competition was to offer a good customer experience that generated a returning consumer base. Furthermore, the interviewee explained that the current trend within US food retail was the increased use of home delivery services.

This store had a self-scanning solution and the interviewee explained that the solution led to a higher throughput in the store during rush hour, which did higher the store’s efficiency. Additionally, the higher efficiency eased the pressure on the cashiers and reduced the lines, which in turn increased the customer experience, since it allowed the customers to save time. The view of the interviewee was that these solutions could save costs but that the tradeoff was that consumers were worse scanners that trained staff. The store manager said that the self-scanning devices were good for smaller purchases and that the constant display of the running total helped the shopper who was on a specific budget. However, when it comes to larger purchases the store manager explained that it was preferable to use the regular checkouts. Moreover, the store manager explains that the store has a loyalty program that collected consumer data so that personalized offers could be provided to each individual customer. It was also explained that the store had a partnership with Shell that allowed the customers to purchase gas with the loyalty points collected in store. Those who were members of the loyalty program could use the Stop and Shop click and collect service, which meant that the customers could go online and order food and then get it delivered home or pick it up at the store.

When questions were asked about the shrinkage that appears with the usage of digital solutions the interviewee explained that there were great systems to reduce the shrinkage and that those who wanted to steal would do it anyway and that the scanning devices just acted as a cover.
**Interview 4.2**

The second store manager interviewed at Stop and Shop had over 16 years of experience within the supermarket chain even longer experience within the food retail business.

The store manager explained that the key success factor of his store was the technology that gave the store competitive advantage over other stores. The technology and use of self-checkouts allowed customers to take several ways through the store, which was much appreciated. The store manager also mentioned that one key advantage with the high tech store was the gathering of consumer data, which allowed them to generate personalized and precise offers to each individual customer based on their purchasing history. This was further mentioned while the future threats were discussed and the store manager explained that a major future challenge would be to gather more consumer data and to utilize the use of it.

When questions were asked about the existing solutions the store manager explained that the store had self-scanning with dedicated devices, a mobile scanning-application and self-checkouts. Furthermore, it was explained that this store, as many others, also had inventory scanners, which ran on a separate system to the consumer scanners. The interviewee said that there was many customers appreciating and using the scanning and self-checkout systems but that they never had measured it. However, the main trend that the store manager had observed was the increased use of the click and collect service, where the customers placed the order online and got it home delivered. It was also explained that the stores consumer base consisted of many returning customer that used the Stop and Shop loyalty program.

**Interview 4.3**

The third interview with Stop and Shop was conducted with a store manager that had 38 years of experience within North American food retail and who had been store manager for this particular store for three years.

While discussing the key success factor of the store the store manager stated that the key was the technological solutions. 35 per cent of the total revenue was generated throughout the 3 self-checkouts and many customers preferred to use them. The focus towards technological solutions was further seen while the future challenges were discussed. The store manager pointed out that the future challenge would be to continue the development of the existing technological solutions and to keep the brand reputation of being innovators.
When the topic of technological solutions was entered, the store manager explained that the major possibilities with these solutions was the customer loyalty and that the store could collect consumer data, which later could be used for direct and precise marketing. This would in turn increase sales since it would enable utilized offers for each individual customer. Today the store has self-checkouts, a mobile loyalty program, an online click and collect service and free WIFI. The store manager further mentioned that they now was piloting for a new technological solution, called “Lane Cath”, which allowed the store to reduce shrinkage by taking photos of the bottom of each cart. Furthermore, the store manager showed a positive attitude towards new technological solutions and especially the new shrinkage control system. The interviewee explained that the consumer base consisted of many returning customers who utilized the loyalty program. Moreover, when discussing the shrinkage related to the technological solutions the store manager explained that they had not noticed any significant shrinkage and that the small loss from the existing shrinkage was absorbed by the great winnings in collecting consumer data.

4.3.5 Shaws/Star Market

**Interview 5.1**

The first interview with Star Market was conducted with an assistant store manager who had worked 8 months in this store and who had 20 years of experience within North American food retail.

When talking about the main success factors and key to profitability the store manager mentioned that the most important factor was to maintain and increase sales. Furthermore, the future challenges was told to lie within keeping customers to this store, since the main future threat was the increasing completion from new actors, such as online retailers and smaller local retailers.

When the discussion regarding technological solutions within food retail was entered the store manager expressed that the major possibilities with these solutions was the marketing aspect. Mobile applications, loyalty programs and self-scanning devices would make it possible to create direct and personalized marketing, which would help to lock-in customers. Moreover, the interview mentioned that the store used to have self-checkout systems that
were very appreciated by the customers, but that national executives had decided to remove them to increase the customer interaction and to reduce shrinkage. The store manager explained that systems such as self-scanning would be very interesting in this store mainly depending on previous popularity of the self-checkouts and the consumer base which consisted of many young people and students. The interviewee also mentioned that a self-scanning solution would be suitable for the entire Star Market, since most stores were located in the city and had time concerned customers. The store had at the moment no loyalty program, but a mobile application, which provided the customers with digital coupons and offers.

**Interview 5.2**

The second interview with Star Market was performed with a store manager who had more than 30 years of experience within North American food retail.

The key success factors of this store were explained to be the location and the brand reputation of being a supermarket chain founded in Boston. The location near the train station and the small distance to the commuting highway generated many customers and the store manager believed that it would continue to do so in the future.

In the discussion regarding technological solutions in store the store manager mentioned that they used to have self-checkouts and that they were very popular for smaller purchases. However, these had recently been removed since the new company board desired more customer interaction. There was a shrinkage problem with the self-checkouts but the savings in labor costs did make up for it. The store manager further explained that the customers who visit the store often were in a hurry and therefore could technological solutions such as self-scanning be suitable, since they would increase the throughput in the store. Some of the technological solutions that existed in the store this day were inventory scanners, which allowed the staff to easily control the inventory levels. However, a third party managed the inventory and the inventory was done during the stores closed hours. The interviewee also mentioned that many of its competitors used the same company for the inventory control. Regarding desirable technological solution the store manager mentioned that systems that could reduce shrinkage and theft would be interesting, but the manager had no knowledge of what such a system could look like.
The store used to have a loyalty program and the store manager pointed out that they were the first supermarket chain in Boston to have one. However, the new board of directors had decided to remove that as well. At the moment Star Market has a mobile application with standardized offers equal to all customers.

4.3.6. Summary of Results from Semi-structured Interviews

In table 4 below the main findings from all interviews with store managers are summarized. This has been done after four questions that each store manager was asked. Furthermore, the column respond to the supermarket chain investigated whilst the row responds to each asked question.

<table>
<thead>
<tr>
<th>Key Success factor of store</th>
<th>TRADER JOE’S</th>
<th>MARKET BASKET</th>
<th>WHOLE FOODS</th>
<th>SHAW’S MARKET</th>
<th>STOP &amp; SHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low prices</td>
<td>• Low prices</td>
<td>• High quality and organic food</td>
<td>• Location</td>
<td>• Technical solutions</td>
<td></td>
</tr>
<tr>
<td>• Customer interaction</td>
<td>• Customer interaction</td>
<td>• Customer interaction</td>
<td>• Local brand, reputation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Special customer experience</td>
<td>• Happy and loyal workers</td>
<td>• Interaction with customer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Grate assortment</td>
<td>• Gate assortment</td>
<td>• Gate assortment</td>
<td>• Interaction with customer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Greatest future challenge</th>
<th>TRADER JOE’S</th>
<th>MARKET BASKET</th>
<th>WHOLE FOODS</th>
<th>SHAW’S MARKET</th>
<th>STOP &amp; SHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A full parking lot might reduce customer experience and competition from online stores</td>
<td>• To maintain low cost products</td>
<td>• Increase the customer experience to keep customers in the store</td>
<td>• Increased competition from new competitors</td>
<td>• Keep reputation as innovator</td>
<td></td>
</tr>
<tr>
<td>• Good customer service</td>
<td>• Increased competition from new actors</td>
<td>• Increased competition in the healthy food niche</td>
<td>• Keep customers in store</td>
<td>• Utilize loyalty programs</td>
<td></td>
</tr>
<tr>
<td>• Increased competition from new actors</td>
<td>•</td>
<td></td>
<td></td>
<td>• Create customer experience to fight online competition</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perception of /possibilities with technology</th>
<th>TRADER JOE’S</th>
<th>MARKET BASKET</th>
<th>WHOLE FOODS</th>
<th>SHAW’S MARKET</th>
<th>STOP &amp; SHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Few, the current technological solutions doesn’t work</td>
<td>• Threat of that Self-scanning and self-checkouts might remove customer interaction</td>
<td>• Efficiency, staff can focus on customers instead of basic tasks</td>
<td>• Direct marketing and Personalized offers</td>
<td>• Increase sales with direct marketing</td>
<td></td>
</tr>
<tr>
<td>• Low knowledge</td>
<td>• Low knowledge</td>
<td>• Threat of that Self-scanning and self-checkouts might remove customer interaction</td>
<td>• Lock-in with loyalty programs</td>
<td>• Personalized offers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Piloting of loyalty programs, will help preserving customers</td>
<td>• Less time consuming shopping</td>
<td>• Creates efficiency and customer experience</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Desirable technical solutions</th>
<th>TRADER JOE’S</th>
<th>MARKET BASKET</th>
<th>WHOLE FOODS</th>
<th>SHAW’S MARKET</th>
<th>STOP &amp; SHOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Solutions that allow supply chain visibility</td>
<td>• None, thinks that they are in phase with the necessary technical solutions</td>
<td>• Atomized inventory connected to POS</td>
<td>• CEO decided to remove self checkouts and loyalty programs</td>
<td>• Reduce losses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Digital price labels</td>
<td>• Loyalty program</td>
<td>• Solutions that decrease losses from theft</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Self-scanning</td>
<td></td>
<td>• Self-scanning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.4 Results from Interviews with Experts

This section of the thesis presents the results from the interviews conducted with experts from hardware and software vendors within the Northeastern American food retail market.

4.4.1 Interview E.1 – North American POS Vendor

The first expert interview was conducted with a POS salesman who was responsible for the northeastern region of North America. The interviewee represented one of the top three largest POS providers in the world and had been in the IT-business for over 40 years. Due to the many years in the business the interviewee had great experience regarding the previous and current shifts in the retail market. Furthermore, the interviewee had worked and implemented many of the existing technological solutions that the Northeastern American retailers used.

The interviewee explained that the main trend within US retail at the moment was Omni channel and that many retailers struggled with creating a unified customer experiences through all distribution channels. Moreover, the interviewee expressed that food retailers were behind in this area compared to other retailers such as Apple and LL Bean. The interviewee mentioned that American retailers had to invest in new technologies both to make the business more efficient and to increase the customer experience in order to catch up with the digital transformation.

Furthermore, it was explained that many American food retailers hesitated to invest in new technologies, instead many retailers preferred to stay in the back end of the technological development, but that many retailers’ experienced difficulties in finding the balance between being late adapters and being left behind. However, the new trend was explained to be that retailers outsource the complete operations of the solution to the provider. In the discussion regarding the digital maturity of the American retailers the interviewee explained that most retailers were in the beginning of the digital era and that there was a great growth potential within personalized marketing and the use of big data from loyalty programs. Expert 1 also mentioned that the American culture had an impact on the current trends within the business. One example of this was the increase of the online shopping, “Americans are lazy, they want to order food online and either picks it up at the store or get it home delivered.”
Regarding the widespread of self-scanning solutions and that only one supermarket chain in Boston had an existing solution the interviewee explained that the reason to that was that the market was not ready before, but that there was potential now. Hence, today people are more used to technological solutions. The interviewee further thought that dedicated self-scanning devices might never succeed in the American market. Instead focus should be on using the smartphone as a scanning device. Furthermore, the main benefits with the self-scanning solutions were explained to be the possibilities of creating personalized offers and direct marketing delivered through the application. In the discussion regarding improvements of the customer experience, the interviewee once again lifted the importance of big data. “The stores must collect consumer data to provide relevant offers that keeps the customer to return to the store”. Further mentioned was that American customers liked to be recognized in the store, something which is easier if the store knows the customer.

The interviewee also mentioned that the organizational structure within the retail organizations was very hierarchical and that reaching the persons making the decisions was a complicated process. As one example the interviewee mentioned “Sometimes the shareholders or the banks financing the organizations are the ones that make the decision”

4.4.2 Interview E.2 North American and European Hardware Manufacturer

The second interview was performed with a product manager at a hardware distributor and manufacturer of self-scanning solutions. The interviewee was responsible for the current and coming self-scanning solutions and had a broad knowledge within the field.

The interviewee explained that the main trend within US food retail was to create a desired customer experience and that 67 per cent of the consumers wanted a less time consuming shopping experience. Furthermore, it was explained that the use of self-scanning solutions in a store increased the profitability with 9 per cent, mainly depending on the higher efficiency and throughput of customers in the store.

In the discussion of the use of self-scanning and self-checkout solutions the interviewee expressed that the American retailers were more conservative towards these solutions than its European counterparts, mainly depending on the fear of theft. The interviewee mentioned that one of the reasons to that the American market was lagging with these solutions was the labor
situation, “labor in America is much cheaper compared to Europe”. Another explanation was the application ecosystem, which is far more developed in Europe than in USA, which in turn affected the development of new retail solutions.

The future potential within self-scanning and personal shopping solutions (PSS) was told to lie within the navigation in store and the data gathering. If the retailers could track the customers path towards the store the marketing of products could be optimized for generation of more sales. It was mentioned that the possibilities for this was already being explored and that attempts with light location (LIFI) and Bluetooth beacons had been made. Moreover, better analysis of the consumer data would allow the retailers to create better and more personalized offers, which in turn increases the shopping experience. An interesting subject discussed was whether the future self-scanning devices would be dedicated devices provided by the store or the consumers’ smartphones. The interviewee believed that both options would have a place in the future store, “smartphones will be more suitable for small purchases and dedicated devices for larger purchases, mainly depending on the long battery life, ruggedness and dependability of the dedicated devices”.

4.5 Results from Interviews with Datema

In this part of the study three C-level managers at the commissioning company Datema was interviewed with the intention to find out the organizational perception of a foreign market establishment. These interviews were conducted as semi-structured. However, to present the results most accurate to this research the answers has been collected under four main questions, why enter a foreign market? what market to enter? How to enter the market? And when to enter the market? Furthermore, the exact layout of the interviews is seen in Appendix 5.

What market to enter and why to enter a foreign market?

Interviewee A

The interviewee clarified “the things you don’t develop die, if you have a good idea you should realize it” and that Datema at the moment see a window of opportunities, which they want to utilize to expand and make money out of. Moreover, the interviewee explained that the domestic market in Sweden had begun to reach a maturity phase; mainly depending on
that self-scanning solutions had existed there for a long period of time. Therefore, the money on the Swedish market was explained to be within the service and the maintenance of the solution, not in selling new ones, since all major supermarket chains already had implemented a self-scanning solution. Moreover, the interviewee concluded that the main competitive advantage of Datema was the integration of the solution. “At the moment we have the most time and cost efficient integration process and our solution can be integrated with existing system such as POS, ERP and CRM in less than four days”.

Interviewee B

From a company perspective the reasons to establish abroad is clear, the interviewee concluded “either you expand or you vanish”. Further explained was that a company needs to follow the market trends and the customers demands to eventually earn money. Other reasons to establish abroad were explained to be the increased cost awareness of the consumers, which had forced retailers to lower margins and compete more with prices. This had in turn put pressure on IT-suppliers such as Datema, which also had to cope with lower margins. “Therefore, Datema must utilize its resources, which can be done by expanding the market place and the use of economics of scale”. Further explanations was that to establish broad reduced the geographical risk, since Datema then had several markets that could mitigate a potential loss from another market.

The interviewee explained that the main competitive advantage in Datema’s current solution was the integration possibilities. “We are best in integrating our solution with existing ERP, POS, CRM and other core systems”.

Interviewee C

Interviewee C’s perception was that to expand abroad creates possibilities to increase revenue, which depended on that a larger marketplace constituted of more potential customers. The know-how was explained to be the main competitive advantage of Datema “every employee is an expert in his or her area”. Furthermore, the interviewee explained that a regular food retailer had all systems that Datema had worked with the last 35 years, which enabled Datema to deliver a higher quality than competitors. Further explained, was that in the integration of Datema’s solution it used the paths that already existed between POS, ERP and CRM, which shortened the integration process and reduced cost.
How to enter the market?

Interviewee A

Regarding how the market should be entered interviewee A stated: “We know that we should do the market entry with a local partner, to enter the market alone would be too costly, both regarding capital and time”. Moreover, the interviewee explains that the competitive advantage of the products that Datema offers is the know-how and the competences in the firm. Hence it would be hard for a partner to steal or a competitor to replicate Datema’s offering.

Interviewee B

The interviewee stated: “business is local. We need to use and utilize the local players that already exist on the market”. This indicated that the market entry should be done with a partner. Furthermore, the interview explained that this was of significant importance on the German and American market since the business culture on those markets were that you only make business with your own. However, the main reason for entering the market with a partner was explained to be the lower cost compared to enter it alone. Regarding the risk of entering a foreign market with a partner the interviewee explained that the code itself behind the software was fairly easy to replicate but that the tacit knowledge that Datema possessed costed millions to acquire. Therefore the interviewee considered the dissemination risk to be limited. Moreover, the interviewee explained that the choice of partner (after certain criteria that Datema has) will reduce the risk even more.

Interviewee C

“Indirect sales through a partner are the way we want to go in an establishment. Hence, business is local”. However, the interviewee explained that the partner of choice was important. “Previously we did the mistake to go with a hardware vendor, which resulted in a limited degree of success. To go with a POS partner or a partner that has more similarities with Datema has proven to be more successful”. Additionally, the interviewee explained that the dissemination risk when establishing through a partner is low since the partner don’t have access to the source code and the knowledge that Datema has. “Even if the code can be replicated many of the larger POS providers has tried to develop solutions by themselves but failed to deliver to the customer, therefore the risk should be considered low”.

79
When to enter the market?

_Interviewee A_

Interviewee A explained that there was a clear interest of the American market among the different competitors that provide self-scanning solutions but that no one has taken the leap yet. “Before we take the leap we desire to know what is happening on that specific market.”

_Interviewee B_

Regarding when to enter the market two quotes summarizes interviewee B’s perception: “We are in the forefront of innovation and have a possibility to create earnings out of it now.” “My perception is that we have to be established on the market by 2018.”

_Interviewee C_

The interviewee explains that there is some competitors that are currently piloting some projects against the North American market, but that the market is far behind the European one and that heavy investments must be made before the market is ready. Therefore, the interviewee notes that it is beneficial to let larger competitors to break the entry barriers first and then follow.

<table>
<thead>
<tr>
<th>Why enter a foreign market?</th>
<th>Either you expand or you vanish. Datema are innovators with a product that currently possess an advantage over competitors’ products.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to enter the market?</td>
<td>Datema desires to establish with a partner to reduce time and cost. Business I local and to get a local acceptance without a partner demands both time and capital. Furthermore, the dissemination risk of the product that Datema is low since the competitive advantage lays within the “know how”, not the code.</td>
</tr>
<tr>
<td>When to enter the market?</td>
<td>Datema currently posses a product that is superior in many ways compared to competitors products, Hence, the time for an establishment is now. However, Datema don’t mind if other larger competitors enter the market first, since that enables Datema to reduce marketing costs.</td>
</tr>
</tbody>
</table>
4.6 Results from Interviews Regarding Entry Modes

This section provides the results from interviews with management consultants experienced in foreign market establishments. The intention with this part of the thesis was to connect theoretical knowledge with practical insights from the industry.

4.6.1 Interview, Gravity Consulting

This interview was conducted with a consultant at Gravity consulting. The interviewee was currently working with assisting Swedish companies in foreign market establishments and had previously run several companies by himself. Hence, the long experience within foreign market establishments.

The interviewee explained that the first thing one should do when considering a new market entry was a situation analysis, meaning that one must find out the organizational desires. This included the organizational needs, goals, visions, business volumes etc. Furthermore, when the situation analysis was completed one should break it down into a time frame. The interview suggested that this could be done by asking the question “what should our business look like in 5-10 years” and then later decomposed to a more detail time frame.

Later the interviewee explained that the second step in a new market entry should be to map the external factors, such as: what possibilities does the market bring, what challenges exist, is there any entry barriers, which business model is required etc. According to the interviewee the following step, when both internal and external factors have been determined, was to find all possible contact points. One suggestion to do this was by contacting business and trade councils, universities, embassies and old business contacts that might provide a way in. Moreover, the interviewee highlighted the importance of visiting the desired market, “sitting at home drawing a business plan doesn’t work! One must meet the individuals in the specific market”. This was explained to be of special interest when establishing through a partner since one must identify the true intention of the partner, such as vision, resources and capabilities. “The match between the partner’s resources and the company’s recourses is highly important.” The interviewee told that a common mistake was that many companies met a potential partner at a fair and then they agreed upon an exclusivity agreement before the counterpart had been properly identified, which in many cases had ended in that the company was unable to act and retain a profit from the market.
Furthermore, when discussing which market to choose the interviewee stated that many companies do the mistake to choose a market based on feelings, not the actual potential. The interviewee mentioned that people tend to be attracted to large market such as Germany and USA, even though they in many cases were hard to establish on and that it often was better to establish on a smaller market first. One example mentioned that clarified this was “One should be good at exporting to a country near Germany before one tires to enter the German market”. Furthermore, the interviewee explained that the most important thing to consider when deciding which market one would like to enter was the vision and the mission of the company, “Where do we want to be in 5 years?” This was explained to help the understanding of how many orders that had to be taken, when the sales process should be started and how much capital that was required.

When the time aspect of a new market entry was discussed the interviewee explained that one of the more critical factors was the company’s durability. It is important that the CEO and management both have and invest time in the new market establishment. A momentum is needed since new market entries require both capital and human resources. Hence, time was also explained to be the major cost factor in a market entry.

Regarding the risk in entering a new market the interviewee mentioned seven more important factors that should be considered. These were: Counterparty risk, which was the risk of not finding a suitable partner on the new market. This resulted in a very time consuming process that requires a lot of capital. Further mentioned was that the time consumption in many cases causes managers to lose both patience and control over the process. Credit risk, refers to the risk of that a company might end up in a critical financial situation due to that credit has been given to the local partner who then fails to sell the products. Technological risk, the risk of that some markets might require a certificate for selling certain products or that certain technology is prohibited. Geographical risk, refereeing to the risk that some market might have certain regulations that bring large costs such as, legal costs, certificate cost and briberies. Investment risk, which might appear if the company provides expensive but few solutions and the implementation times runs away, causing the company to end up in bankruptcy. Labor risk, the risk of that some key individuals, at the own or the partner organization leave. A clear organizational structure and potential stand-ins mitigate this risk.
Moreover, regarding the existing competition on the market the interviewee explained that it is necessary to know who the competitors are but that most empathizes should be put on knowing the specific customer and its needs, because that’s what brings you the contract in the end.
5. Discussion

This chapter provides the reader with analysis of the results obtained from the collected data, covering the literature review, market observations and interviews. Finally the methods used and the sustainability aspects are discussed.

5.1 Discussion of Results from Literature Review

Results from the literature review reveals that the US food retail market is all about the customer experience. Customers’ desires a personalized shopping experience where the retailer considers each individual’s needs. Furthermore, results show that consumers still values traditional stores since they provide a unique experience. However, there is a strong trend towards declining spontaneous purchases and an increase of online retail, affecting the traditional business of food retail. Therefore, retailers must do more to deliver the desired customer experience to cope with competition from online retail. Moreover, results from an investigation of Gildenberg, et al., (2012) indicated that the development within the American food retail industry had reached a maturity phase and that the traditional view of increasing sales by the increase of retail space has slowly begun to stagnate (Gildenberg, et al., 2012). This causes retailers to work more with existing space and to become more efficient.

The development of the US economy has caused large fragmentation amongst the American population. This has resulted in a decrease of the middle class, causing larger extreme high- and low-end consumer groups. The size of the extreme segment has become large enough for specific retailers to develop stores specialized in targeting these consumers (Milanovic & Gornick, 2015). However, the large retailers then struggle to satisfy all consumer groups, since these consumers’ desires different experiences. Studies of Gildenberg et al. (2012) reveals that the low-end consumers prioritize cost efficiency whilst high-end consumers’ desires time efficiency and convenience. In terms of personalized shopping solutions such as self-scanning applications this indicates that different approaches must be used to different store concepts. The more high-end and premium stores might value solutions that provide external information regarding both products and offerings, whilst the cost-cutters who’s main intention is to keep prices low would favor a simpler solution that allows them to reduce the in-store staff and helps consumers on a budget.
One way for retailers to increase the customer experience and deliver personalized offers is to use loyalty programs that collect a large set of consumer data. These data sets can then be used to study the consumers purchasing history, which enables the delivering of personalized offers based on what the consumers use to purchase. However, results from the study of Zebra Technologies (2015) revealed that the main fear among today’s consumers is to trust retailers with personal data (Zebra Technologies, 2015). Therefore a major part in being successful with loyalty programs is to earn the customers trust. Recent studies indicated that earning customer trust was strongly dependent on the delivered customer experience (Smith-Bingham, et al., 2015). Therefore, a successful retailer needs to deliver a personalized customer experience along with a careful management of consumer data. A way of earning customer trust is to show trust in the consumers, allowing them to control the purchase. This could be done by providing a self-scanning solution, which enables the consumer to control the price of each product scanned, keep control of the running total and make sure that every product are scanned correctly. Additionally, giving the consumers and increased control of the purchase has shown to increase customer experience by itself (Smith-Bingham, et al., 2015). Since the value of each specific device is $300-$500 the retailers does not only trust the consumers with control over core processes but pure money value.

Furthermore, a major key of delivering a pleasant customer experience is the service of the customer. The service delivered has previously been dependent on one channel of distribution. However, todays retailers have begun to use an multi-channel approach with several distribution channels, which has shown that different services is delivered through each channel (Dholakia, et al., 2005). Results from Expert interview 1 revealed that many Northeastern American retailers struggles to deliver a unified experience through the different distribution channels. This results in a poorer customer experience and a less satisfied customer. Therefore, retailers must work with providing a unified customer experience throughout all channels of distribution to succeed with the Omni-channel approach.

Another trend seen on the US food retail market is the increasing of health awareness. Americans want healthy and organic products that are locally produced (Gildenberg, et al., 2012). For retailers to deliver upon this desire they must both provide organic products, but also earn the customers trust that they really are locally produced. A way of doing that is to use personalized shopping solutions, such as self-scanning that allows the customer to find
out more about each specific grocery whilst it is scanned. For example, such a function could provide the consumer with the place of origin of the product, when it was produced and who the producer was.

5.2 Discussion of Results from Market Observations and Interviews with Store Managers and Experts

General market structure
The market observations revealed that it was a total of five supermarket chains dominating the Boston food retail market. Those were, Trader Joe’s, Market Basket, Shaws/Star Market, Stop & Shop and Whole Foods. All of these chains had a different store concept and way of targeting a specific consumer group. Gildenberg, et al. (2012) described that the North American food retailers was divided into three main categories, masstige, cost cutters and ultra-premium, which the results from the market observations confirmed. However, the previously mentioned classes are in this report referred to as regular, cost-cutters and premium stores.

Whole Foods Market was the most premium store that had a concept of offering fresh organic products. However, this store targeted the people that could afford the luxury of paying extra for these products and prices were higher than average, this store type is recognized in Gildenberg, et al’s (2012) definition of an ultra-premium store. Moreover, among the chains that offered the complete opposite was Market Basket and Traders Joe, which both targeted the low end of the market with a cost-cutting strategy. In the borderland between the high-end and low-end stores Stop & Shop and Star Market was found. These two stores, referred to as regular stores, focused their efforts on a broad range of consumers, highly recognizable with Gildenberg, et al (2012) definition of a masstige store. Since the stores had different focuses the customer experience delivered in them were different. This was in line with results from the literature review and that a delivered customer experience must be adapted to the different market segments.
Retailers think that customer interaction is the key to customer experience

Every supermarket chain investigated prioritized the customer interaction highly and saw it as a key ingredient in building customer experience. This in turn explained the low amount of technological solutions in most stores. The interviews with the store managers of the various chains revealed that a main fear of implementing more technological solutions was to lose the customer interaction and thereby the customer experience. Furthermore, all store managers agreed that the customer experience was a key to keeping customers returning to the store, especially when the competition from new online actors increased.

Another explanation mentioned both in interviews with store managers and in expert interview E.1 and E.2 was that the resistance of implementing more technological solutions was the fear of an increased shrinkage. What this really reveals is a low trust of the retailers in their customers, since retailers hesitate to give the control to the customers. However, the interviews with the two chains that had implemented self-checkouts proved that trust could be handed to the customers. Firstly, the most technological advanced and the market leading supermarket chain, Stop & Shop told that the existing control systems reduced the shrinkage to levels so small that it was marginal and not counted. Moreover, the same chain mentioned that the gaining from removing a regular cashier and the improved experience that these solutions provided covered the potential loss. One store manager at Stop & Shop also mentioned that over 35 per cent of the stores revenue was generated through the two self-checkouts, which strengthened the popularity of the solution. In the interviews with the other chain that had self-checkouts, Star Market it was found that the devices was popular in those stores as well and that many customers enjoyed them for smaller purchases. However, recently top management within the adult company to Star Market has decided to remove all self-checkouts to increase the customer interaction. Thus, the resistance towards these solutions seems to depend on a low degree of knowledge rather than mistrust. Furthermore, interviewee E.1 mentioned that one reason to the limited widespread of self-scanning solutions was that the market was not ready when they began to implement them a few years ago, but that the market is ready now. This is most likely an effect of that the knowledge of these solutions did not exist at that time.
Digital maturity of the supermarkets varies with the store concept

Seen in the results from the market observations and interviews with store managers, the cost cutting stores had the lowest level of technological solutions, neither of Market Basket and Trader Joe’s had a mobile application for digital coupons or any personal shopping solutions in store. Interviews revealed that they wanted to provide the same low price to every customer and that their way of providing a good customer experience was the interaction with the customer. Furthermore, they had a low belief in loyalty programs and that technology could help improving customer experience. Therefore, the implementation of a self-scanning solution in these types of stores seemed to lay far in the future. On the other hand, the middle segment with the regular stores had an optimistic view upon technological solutions and the interviews with the store managers revealed that the consumer group was ready for them. A store manager at Star Market mentioned that the introduction of a self-scanning solution would be of particular interest since most of the customers to the store were students and young people that appreciated new technological solutions. Star Market seemed like the perfect candidate in many ways for implementing a self-scanning solution, the stores were located in Boston city and had a consumer base that prioritized time and were used to technology, but still top management had decided to take a step back regarding the use of technological solutions and removed self-checkouts and loyalty programs.

When observing the most premium supermarket, Whole Foods Market the technical level in store was almost as low as in the cost cutting stores. These stores aimed to provide the highest product quality, to ensure that every product in store was organic and if possible, locally produced. Moreover, many of the Whole Foods supermarkets had large take away and deli departments, from which many customers made small lunch purchases. The only way for the customers to checkout and pay was then to visit a regular cashier. Whole Foods had tried to increase the throughput in the store during rush hour by the introduction of some fast lanes, which were regular cashiers that limited the purchases to a certain maximum of groceries. The possibilities with introducing a self-scanning solution in a store like this are many. Firstly, a self-scanning solution would provide a better supply chain visibility to the customers if the self-scanning solution allows the consumers to take part of external information about the products scanned, such as manufacturing date and origin, which would increase the customer experience. Secondly, the self-scanning solution would enable a more efficient shopping experience since the deli queue time could be reduced if a queue function
was built in to the scanning application. This is supported from interview E.2 where the interviewee mentioned that 67 per cent of the consumers decried a less time consuming shopping experience. Thirdly, the small purchases of take away food and the checkout-lanes that it ends up in could be reduced by the use of a self-scanning solution that allowed the customers to checkout by themselves instead. Finally, a self-scanning solution and a loyalty program would enable Whole Foods to know the customers better and thereby further increase the customer experience. A strong indication of that Whole Foods desires to do so is their current piloting of a loyalty program in some specific stores.

Some supermarkets are more mature for personal shopping solutions than others

To summarize, it can be said that some stores are more mature than others for implementing a self-scanning solution. The two more suitable are Whole Foods and Star Market. Furthermore, Stop & Shop already have a solution in place but the features of it are basic and not in line with the latest development of the self-scanning solutions, therefore an update of the existing system might be of interest. The reason to that Stop & Shop is the only retailer on the market with a self-scanning solution may depend on the European ownership and that Ahold who owns the chain has been influenced by the stores in Europe, which more frequently uses these solutions.

Necessity and willingness for change

Results show that there is a market for self-scanning solutions in the Northeastern part of USA. Moreover, results indicate that there are some supermarket chains that definitely would benefit from implementing the solution. However, nothing has happened. This might depend on that there is a low willingness of change or that there is no necessity to change. The latter one, necessity to change referrers to those retailers is in a safe position and therefore implementing new technologies is not necessary for a continuous successful business. However, the results from earlier studies within both consumer and retail markets prove this wrong. Traditional retailers are losing ground to online retail and retailers agree that key to a successful defense against these new actors are to provide the best customer experience. Therefore, a necessity of change exists. Instead, focus is put on the other aspect, willingness of change.
The willingness of change may depend on many things, but it is most certain low, not necessary among store managers that are close to the daily operations but higher up in the hierarchy. To connect these findings with the theories from change management and the TAM model by Davis (1989) one realizes that the main factors for technological acceptance, the perceived usefulness and perceived ease of use, is missing. Retailers do not see why they should implement these solutions since they don’t know how it is going to increase the performance of their store. Further if the ADKAR model is considered, one realizes that the two first founding blocks for change, awareness and desire are missing. The interviews with store managers revealed that those who were most resistant towards new technologies were those with the lowest knowledge about them. This is a clear indication of a low awareness within food retail of that there are technological solutions that can help improving customer experience. Furthermore, Datema must create a desire for retailers to take part of the change. Hiatt (2016) suggested that four factors could be used to create this desire. The first factor relates to the question “what’s in it for me?” and to fulfill that retailer must be educated about the nature of the change and what these new technological solutions may do for the business. First when the retailer has an answer to the first factor a decision upon if the change is a threat or a possibility can be made (Hiatt, 2006). Moreover, the second factor of Hiatt (2006) referrers to the environmental influences, such as ongoing changes in the organization at the moment and the results of previous changes.

When talking to the most critical store managers these revealed that their low beliefs in technological solutions was constituted on the bad performance of previous solutions, such as the self-checkouts that tended to malfunction during the checkout. To overcome this, companies that desire to implement new technologies into the supermarkets must ensure the store managers of the dependability of these new solutions. Furthermore, the third factor stated by Hiatt (2006) for creation of desire of individuals, the personal situation, can be related to the background of most store managers and the top management within the retail organization. Interviews revealed that all store managers that were interviewed had worked their way up to their current position without any academic studies, meaning that they had a very long experience within the business. This acquired experience may act as an obstacle to change since implementation of technological solutions breaks the traditional way food retailing has been done. Furthermore, even thou the barriers to change seems to depend on the first to blocks of the ADKAR model, other retailers that both desired and had realized the potential of digital solutions lacked the knowledge and the ability to implement the change.
This is highly related to the second factor for acceptance of technology by Davis (1989), the perceived ease of use. One example is the quote from a store captain of Trader Joe’s regarding technological solutions “the major problem with them is that they never work which ends up in a bad customer experience. Another example, related to lack of resources was the interview with a store manager from Whole Foods who mentioned that many of these solutions was desired but not possible to perform since the financial resources was missing and the groups’ POS system was about to change.

However, the main reason to the resistance of change from an ADKAR perspective is the awareness and desire of change. This is a strong indication of that companies' such as Datema must educate customers about shopping solutions. While doing this Hiatt (2006) suggested that four questions should be answered for the individual, these are “Why is change necessary?”, “why is change happening now?”, “what is wrong with what we are doing today?” and “what will happen if we don’t change?” (Hiatt, 2006). Meaning that both of the benefits of implementing new technological solutions along with the risk of not doing it must be explained to the retailers. This however becomes a matter of industrial marketing and the assurance of that the information reaches the right persons within the retail organizations. Theories of Webster and Wind (1978), mentioned in section 3.4.2 explains the roles within the buying organizations and that he unit controlling if a purchase is made or not is referred to as the buying center. In order to educate the customers Datema needs to reach and convince the people in the buying center. Even thou the IT-department can be seen as the purchasing unit, which will be responsible for the use of a self-scanning solution it is most likely that the decision maker(s) is a person or group in another part of the organization (Webster & Wind, 1972). Results from the interviews with the store managers showed that a store manager was not the one who made the decisions regarding if a store should have a specific solution or not. A good example of this was Star Market, which recently had removed the self-checkouts in all stores on the adults company’s CEO’s command. Even thou the solution were popular among store managers and customers. Therefore, store managers might act as influencers but they are neither the gatekeepers nor the decision makers. Furthermore, difficulties lies within getting the information through the gatekeeper, which is the one controlling the flow of information into the retail network (Webster & Wind, 1972).

In this investigation, all retail organizations referred to their regional marketing and media officer, who had to approve on all information that one desired to deliver to the organization.
Therefore, the marketing officer should be considered as one of the gatekeepers, since he or she is controlling the flow of information that reaches the firm. However, interviews with the store managers revealed a strictly hierarchical structure within the retail organizations, something which is according to Webster & Wind (1972) must be taken into consideration when targeting the organization. Hence, it is probably a more senior manager behind the marketing officer that decides on the criteria that is required to pass the gatekeeper. This was further strengthened in the interview with Expert 1 where it was explained that the process of reaching the deciders were both time consuming and complicated, since sometimes the decision makers were the banks and shareholders financing the organizations.

Further influences from industrial marketing mentioned by Webster & Wind (1972) was the environmental variables affecting the way in which business was done in the particular industry. Expert interview 1 revealed that the culture among most retailers in the Northeastern region of USA was to wait with investments in IT-solutions to see what competitors did. This had according to Expert 1 developed a balance act where retailers pend between being late and being too late with technological investments. This is a strong indication of that Datema must be able to create a reference case for being able to sell to the Northeastern American retailers.

5.4 Discussion of How the Northeastern American Market Could be Targeted

What market to enter?
According to Pradhan (2009) two factors determine if a company desires to establish on a foreign market, these are referred to as push and pull. In the case of Datema and the Swedish market a combination of the two factors is experienced. Firstly, the market has become mature and starting to saturate since self-scanning solutions already exists in major supermarket chains in Sweden. Therefore, the market can be considered as a push market, since it forces local actors to seek new possibilities abroad. However, interviews with Datema have revealed that several opportunities still exist in other retail segments and that the maturity only is reached within food retail. Furthermore, the self-scanning solutions that today exist in Sweden are built upon an old solution with a Windows CE5 operative system.
Therefore, the coming update of these solutions with a new hardware and an Android based platform constitutes new possibilities for Datema. If the latter two possibilities are considered, the desire to establish on a foreign market from a Pradhan (2009) perspective can be determined by a pull factor.

As seen in the literature the Northeastern American food retail market constitutes of many attractive characteristics for Datema. As statistical information from the US department of commerce (2014) shows, this geographical area inhabits 20 per cent of the US population and that this area have among the highest average household income in all of USA (U.S. Department of Commerce, 2014), (U.S. Census Bureau, 2015). Hence, the strong buying power provides great opportunities for foreign companies to generate revenue. Moreover, the results from the market observations show that there is a low degree of maturity regarding technological solutions such as self-scanning on the northeastern American market. Investigations of Zebra (2015) and Smith-Bringham, et al., (2015) argue that consumers desire an increased customer experience, which in turn can be created through the implementation of a self-scanning solution. Therefore, the Northeastern American market crates a pull effect for companies that can fill this gap.

Furthermore, Pradhan (2009) suggested that several sub factors, such as the proximity to the domestic market, similarity in culture and local actors should be carefully considered before the market entry decision is made. Applied on this case where the proximity to the domestic market is far an establishment with a hardware product would be heavily affected of the long distance between the two markets. However, since Datema’s competitive advantage lies within the software and the know-how, the distance between the two markets is believed to have a small impact. Moreover, the investigation of Kjeldesen (2012) along with results from interviews with Business Sweden indicates that there are several similarities in the culture of the northeastern part of America and Scandinavia, which according to Pradhan (2009) enables more efficient operations in the new market. Furthermore, as mentioned in Discussion 5.2 the different supermarket chains on the market are different suitable for self-scanning solutions, with the result that regular and premium stores are more applicable for these solutions. Since there is only a few actors that provide self-scanning solutions to the Northeastern American market the local completion is considered low. Hence, it has not started yet.
Moreover, if the market structure of the American IT-vendors is considered the results from expert interview 1 and 2 indicate that Datema can benefit from the same gap as it is currently using on the Scandinavian market. Referring to POS vendors that previously had controlled the complete sales network, which by Hunt & Morgan (1994) could be referred to as hierarchical competition view, now has abandoned that view to compete in strategic networks to cope with the rapid technological development. This offers possibilities for companies such as Datema to take part of that network and partner up with POS providers.

**How to enter the market?**

Since, Datema desires to enter the northeastern American market one must consider which entry mode to choose. If the framework by Hill, et. al (1990) is considered, there is three ways of entering a market, licensing, joint venturing or wholly owned subsidiary. In Datema’s case a joint venturing would be the preferable option. Firstly, the complexity of the product requires a certain amount of control. Hence, partners cannot service and support the solution without the assistance of Datema. However, local differences in the new market might create implications in understanding customers, which limits the amount of control that can be taken. Secondly, the size of Datema and the amount of resources that they can deploy limits them in how the market could be entered. Hence, creating a wholly owned subsidiary requires a lot of capital (Hill, et al., 1990). Therefore, to enter the market with a partner is preferable since it requires fewer resources. Furthermore, since the sales cycles of self-scanning solutions is 6 months to 2 years a joint venture with an already established partner reduces the time to the market and thereby reduces risk. However, since a certain amount of control is needed Datema must invest in educating the partner and support functions. Therefore, a certain amount of resources must be deployed. Thirdly, since the competitive advantage of Datema lies within the know-how behind the solution and not the code itself the dissemination risk is considered low. This enables Datema to go with a partner without losing its competitive advantage to the intended partner.

However, results from the interview with Gravity consulting revealed that major risk factors when a company has decided to go with a partner is to find a suitable one and not jump into an agreement with an inappropriate partner with opportunistic intentions. Therefore, to avoid the mishaps of choosing wrong the success factors suggested of Hunt, et al., (2006) in RM is used. Firstly, if considering the resources, Datema needs to find a partner that contributes to
the fulfillment of the combined offer. Meaning that if Datema contributes with the self-scanning software the partner might offer a hardware or POS system to integrate it with. This agrees with the findings from the interview with Gravity Consulting, were the interview stated: “The match between the partner’s recourses and the company’s resources are highly important” (Interview 4.6.1).

Secondly, if the competences are considered, Hunt, et al., (2006) suggests that the partners should have complementing competences. Hence, Datema needs to find a partner that possesses competences that complement the ones that they already have. Interviews with Datema revealed that the main competitive advantage lies within the know-how and the experience within serving the retail business with IT-solutions. Therefore, a potential partner may have knowledge of the local customers and a sales network. Thus, the combined set of competences would provide a complete product offering. Furthermore, interviews with both store managers and experts revealed the importance of local business and local presence. Hence, Datema requires a partner with the local presence.

Moreover, Datema’s products are sold in a B2B environment with retail organizations as the intended customer. This along with long sales cycles and a product that require a significant size of investments makes the selling process part of industrial marketing. If the framework by Webster, et al., (1972) is considered, this process should be referred to as a relationship between the selling and the purchasing organization rather than a transaction between both parties. In Datema’s domestic market the knowledge of the customer is strong and the relationships well established, which allows Datema to identify the key roles in the buying organization. However, on the Northeastern American market no such knowledge exists. Furthermore, results from the interviews with the store managers indicated of a strictly hierarchical organization structure with several gatekeepers along the way, were the first one identified was the marketing officer. In order for Datema to succeed in the market they must identify key roles such as the deciders and the influencers. Moreover, the gatekeepers must be passed in order to reach them. The only role that has been properly identified in this thesis is the user, which is the supermarket that has been visited. However, according to the theories of Webster, et al., (1972) and results from the interviews with store managers these have little to say regarding what should be bought or not. Therefore, Datema is left with two options, either to partner up with a local partner that possesses knowledge of these networks or invest more time and money in identifying them.
Consider entering the market in a joint venture with a partner with the intention to create an optimum solution for the retailer. One could argue that this would be to create an Omni-channel solution. Hence, according to Rigby (2011) to create an Omni-channel approach with complete interaction of all the store’s core systems enables the retailer to increase sales and provide a better customer experience. Datema contributes to the Omni-channel concept by providing a distribution channel which is integrated with the core systems, such as POS, ERP and CRM. However, for being able to provide the retailer with a complete solution Datema must find one or several partners that can deliver the other systems. This would require Datema to consider a network of partners. If the RM theories of Thorelli (1986) and Hunt, et al., (1994) are used, Datema should create a strategic network with the goal to deliver this Omni-channel solution. To create a strategic network with suitable partners would deliver benefits as lower costs, preservation of know-how and great flexibility, which enables Datema to maintain their competitive advantage. However, some of the drawbacks are that the creation of such a framework requires time and carefully considering of the partners included.

**When to enter the market?**

Regarding when Datema should enter the market, they should do it as a follower. Gaba, et al., (2002) suggested several factors that should be considered when deciding when to enter the market. Firstly, Datema has a fairly low degree of internationalization since they only are established in the northern part of Europe and no subsidiaries exist in North America. To not have a nearby subsidiary along with a limited experience in the new market complicates the establishment process (Gaba, et al., 2002). Secondly, Datema is a fairly small company, which limits their ability to put in financial and human resources into a market entry compared to a larger company. Thirdly, the scope of economics, referring to the size of the product portfolio has an effect on when to enter the market (Gaba, et al., 2002). Datema has a narrow product portfolio regarding the retail business with only two products, which limits them to carry eventual losses during the establishment process. However, if the complete Datema group is considered the product portfolio is broader, making them to take advantage of synergy effects from other products. Therefore, if internal factors are considered Datema would benefit the most form entering the market as a follower since the risk of entering first is too high. Furthermore, results from the interviews with Datema revealed that larger competitors have begun to explore the North American market. Gaba, et al., (2002) suggest
that a way of determine when to enter the market is to observe the competitors and evaluate their success on the market. Therefore, Datema could benefit from observing its’ competitors and then develop a follower strategy when the timing is right. According to Lillen & Yoon (1990) a follower could also benefit from a reduced risk since more resources could be put in to developing the product instead of marketing. However, the late arrival always risks losing marketspace to competitors.

5.5 Discussion of Methods Used

The consumer data was collected through a literature review of the latest market studies within the field. Since the control of the questions asked and the analysis of the data gathered was done by a third party, the accuracy of the data may vary. Hence, previous researchers might have had another focus or filed of interest. Moreover, many of the market studies have been performed by companies in collaboration with a research institute, which increases the risk of that the results might have been presented in a way to satisfy the commissioning company. However, many similarities in the results from the different sources exist and the companies’ behind the results are well known actors with a reputation of being accurate. As an example, since Zebra technologies is a hardware vendor of self-scanning solution some of the results in their consumer study might be adapted to fit their interest. Therefore, to avoid misleading results the results from the Zebra study has been triangulated with results from other research institutes.

The market observations performed on site in the city of Boston was done by us evaluating the store after a specific set of questions, see Appendix 2. The results obtained in the market observations consisted mainly of quantitative data that was used to categorize the different stores after the consumer group they targeted, the current range of technological solutions and the overall customer experience in the store. However, technological solutions that in this report are considered as important may not be of interest for another researcher that approaches the food retail industry from another angle. Furthermore, the categorization of the stores into premium, regular and cost cutting stores may be specific to this investigation since other researches might consider other parameters to be of more importance.

Since the observations manly concerned quantitative data the generalizability of the result is dependent on the amount of stores visited. However, since all stores that made it through the
limitations were visited the result is considered to be applicable on the whole city of Boston. Furthemore, the reason to do this part of the investigation on site in Boston and not through a literature review was the lack of data available and the risk of missing out on intangible details, such as the customer experience.

In total a set of 10 semi-structured interviews were conducted with store managers from the main supermarket chains. At least two interviews were conducted with each supermarket chain accept from Trader Joe’s which only participated in one interview. Since the amount of interviews was not enough to statistically prove the generalized opinion of the Boston retailers the results should be considered as guidelines rather than statistical facts. Moreover, the results from the interviews showed that those with a higher knowledge of digital solutions were more positive towards the implementation of new technologies and products to the store than those with lower knowledge. Therefore, some answers may be misleading since the selected interviewee might have a lower knowledge than others in the organization. Furthermore, even thou most store managers of the 34 stores visited were asked to participate in the study most interviewees were men in the age of 40 years and above. This did probably depend on the hierarchical systems within the retail organizations, which resulted in that only experienced managers comfortable with their position dared to participate. This might have influenced the results since several of the store managers were both men, women and younger than 40. Furthermore, the lack of citations from these interviews depend on that the interviewees did not allow any audio recording and limited annotations.

Several in-depth interviews were conducted with experts within foreign market establishment and potential partners to Datema. The intention with these interviews was to get an indication of the future within technological solutions of the retail business, the distribution networks of technological solutions and the foreign market establishment process. However, comparison of results from the in-depth interviews was harder due to the low degree of standardization and every interviewees influence on the interview structure. In-depth interviews were suitable in this part of the research since indications rather than statistics was desired.
5.6 Sustainability

To evaluate the sustainability aspect of this report the three dimensions of sustainability is considered. These are referred to as economic, social and environmental sustainability. Hence, the sustainability aspect of market establishments is rather difficult to discuss this part of the thesis will put more empathizes in the intended product, which is self-scanning.

From an environmental point of view, the self-scanning solution can be considered as computers in a network. Each device contains a circuit board, a LCD screen and a plastic frame, which has to be recycled separately when the product is outdated. To ensure that the products are properly recycled the hardware distributors are responsible for the recycling of the old solution (Motorola Solutions, 2016). This enables a high level of recycling since the manufacturer knows the composition of each device.

While observing self-scanning solutions from a social point of view several factors can be included. Not to ignore is the man versus machine issue. The self-scanning solutions can be used to remove previous employees in the cashiers to reduce the labor costs. This would from a social point of view be considered as unsustainable since it would reduce the amount of jobs available. However, the suggested solution is that the staff replaced with the self-scanning solutions is moved in to the store where they can help customer assistance and promoting sales, which would increase revenue even more. If that approach is used, the solutions should be considered sustainable even from a social point of view. Furthermore, since the self-scanning solutions have proven to increase the customer experience, which contributes to the wellbeing of the individual it is socially sustainable from a consumer perspective.

From an economic point of view the self-scanning solutions are highly sustainable since they allow the retailers to save costs in terms of administration, inventory and labor. Moreover, self-scanning solutions has proven to increase the throughput in the store and thereby contributes to higher revenues. In Europe the revenue increase with the implementation of a self-scanning solution is 9 per cent (Zebra Technologies, 2015).

As a concluding remark of all factors of sustainability, self-scanning solutions allows retailers to do more with less, which is why they should be considered as sustainable.
6. Conclusions & Implications

This section of the thesis provides the reader with the conclusions related to each research question. It also presents the main implications that contribute to the fulfillment of the purpose of the thesis.

6.1 RQ 1 – What Are the Consumer Requirements for Technological Solutions?
Consumers still prioritize regular supermarkets but they desire an increased customer experience with a better in store experience along with more personalized offers. However, one of the consumers’ greatest fears is trusting the retailer with personal data which is needed to create a more personalized shopping experience. Furthermore, personal self-scanning solutions are desirable because they increase the customer experience. The large fragmentation of the American population has led to different consumer groups being formed, high and low end, that desire different customer experiences. The high-end consumers desire technological solutions that provide time efficiency and convenience, whilst the low end consumers prioritize technological solutions that provide cost efficiency.

6.2 RQ 2 – What are the Retailers’ Current Perception and Level of Technological Solutions?
The level and the perception of technological solutions vary with the different store concepts. The highest use of technological solutions is seen in the regular stores where both self-scanning and self-checkout exists. The lowest acceptance of technological solutions is seen in the cost-cutting stores where no PSS exist. The results also showed that a major concern in the low-end stores was the low trust in the consumers and that a solution such as self-scanning would increase shrinkage. All retailers agree that customer experience is the most important factor for keeping customers loyal to the store. However, the retailers’ main concern regarding technological solutions is that they remove the customer interaction, which they consider as key to the creation of this experience. Retailers in all segments desire technological solutions that enables supply chain visibility, but only regular and high-end retailers desire loyalty programs that enables gathering of consumer data. Furthermore, results tell that knowledge is the key to improving the perception of technological solutions.
Retailers with higher knowledge of technological solutions both uses and desires more technological solutions than those with a lower degree of knowledge. Finally, the overall technological level of the Northeastern American retailers is low, which is explained by the low awareness and desire for this type of solutions. Retailers wait for competitors to implement technological solutions to be able to evaluate the potential success. Thus, a reference case is needed to convince retailers.

6.3 RQ 3 – How can Datema Target this Market?

A combination of push and pull factors attract Datema to the Northeastern food retail market. The attraction is constituted of the large and wealthy consumer base, the cultural similarities with the Scandinavian market, the highly educated recruitment base and a need for technological solutions that enhance customer experience.

Datema should enter the market in a joint venture with one or several partners. The joint venture approach is preferable since it demands a low amount of resources and the complexity of Datema’s product requires a certain control. The advantages are that the dissemination risk is low due to Datema’s competitive advantage of tacit knowledge. Datema should create a combined offer with partners through a strategic network. This will enable advantages such as a stronger competitive advantage, lower costs, great flexibility and preservation of know-how. Furthermore, to benefit the most from the joint venture Datema should find partners that contribute to the fulfillment of the combined offering. To do so the partner must have the resources and capabilities that creates a win-win situation for both Datema and the partner company. Additionally, the partner should have knowledge of the local market and an established sales network.

Datema is recommended to enter the market as a follower, which reduced the risk for Datema. This suggestion is based on the relatively small size of Datema as a company, and their limited product portfolio. However, the follower approach requires careful observation of the competitors that enter the market first.
6.4 Implications and Main RQ

This part of the thesis provides the answer to the main research question: “How can a Swedish IT-company, Datema, fulfill the need for self-scanning solutions within the Northeastern American food retail market?”

There is a desire among consumers in the Northeastern American food retail market for technological solutions that increase the customer experience. Thus, Datema should enter the market by providing self-scanning solutions that fulfill this need. Furthermore, this investigation concludes that different market segments desire different customer experiences, indicating that Datema must focus on satisfying the needs of one segment. Additionally, the technological level of the different supermarket chains has been proved to be dependent on the market segment they target, resulting in regular and premium stores having a higher acceptance of digital solutions. Consequently, Datema should focus on the middle- and high-end market. However, the overall technological level of Northeastern American retailers is low, where many retailers lack the awareness of new technological solutions. Datema must, therefore, develop a reference case to prove the value of the self-scanning solution.

To conclude, in order to fulfill the market need Datema is recommended to enter the Northeastern American market in a joint venture with one or several partners using a strategic network. A further recommendation is to use a follower approach as it means the lowest risk for Datema.
6.5 Reflections on the Master Thesis

The aim of this research was to investigate how Datema could satisfy the need for self-scanning solutions in the Northeastern American retail market. Thus, most efforts during the data collection was put in understanding the need of retailers and consumers. Even though this thesis investigated how Datema could establish on the market and provided suggestion in how it could be done, future research within the area could be necessary. Future studies with an intense focus on the buying organizations of the retailers would be beneficial for a market entry. Furthermore, these studies should be aimed towards creating a map over the buying organizations and how these organizations work regarding the purchasing decision. Once the gatekeepers, influencers and deciders have been identified focus should be put on how to reach these persons.

Furthermore, the timing aspect of a market entry has been partly analyzed in this study. However, this has mostly been done from a company perspective, referring to the resources and the capabilities of the individual firm. Future studies could put more empathizes in external factors that affects the market entry decision. As an example, a future study could attempt to identify similar technologies that have been introduced to the Northeastern American market and then benchmark with those cases. Moreover, the product itself, self-scanning could be analyzed from an innovative point of view where the success of such a solution is evaluated and compared to other technologies that changes a specific behavior or buying pattern.

Moreover, this study has been focused on the Northeastern American market, mainly depending on the size and the purchasing power of this market. However, future studies may find other markets to be of greater interest. Thus, such studies could focus on the problem investigated in this thesis from a broader perspective with the aim to identify the most beneficial market to establish on.
7. References


Samaras, M., 2016. *Head of International Sales* [Interview] (01 2016).


Appendix

Appendix 1: Pre-Study

Market observation, Sweden

Self-scanning

How many of the customers that enters the store uses the self-scanning solution?

<table>
<thead>
<tr>
<th>Use</th>
<th>Don’t use</th>
</tr>
</thead>
</table>

Who are using the self-scanning solution?

<table>
<thead>
<tr>
<th>Age</th>
<th>A: 18-34</th>
<th>B: 35-49</th>
<th>C: 50-64</th>
<th>D: 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- How large are the self-scanning purchases?

<table>
<thead>
<tr>
<th>Amount of bags</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

→

1 paper bag = 1,5 plastic bags

Buying patterns

Is there any specific trends?

Are there any problems?

What is most time consuming in the store?
Appendix 2: Market Observations

Market Observation

Store
Size
Store concept
Date and Location

1. Self Scanning
   a) YES/NO
   b) Hardware
   c) Amount of handles

2. Self-checkouts
   a) YES/NO
   b) Hardware
   c) Amount

3. WI-FI
   a) YES/NO
   b) Closed to store
   c) Open to customers

4. DIY scales and Equipment
   a) YES/NO
   b) Hardware
   c) Amount

5. Staff Allocation
   a) Only at cashiers
   b) At cashiers and in store
   c) Distribution %

6. Loyalty Program
   a) YES/NO
   b) Card
   c) Mobile application

Other observations:
Appendix 3: Semi Structured Interviews

Interview Supermarkets

The purpose with this interview
This research aims to identify the need and use of technological solutions within the North American food retail industry. More specifically, a market analysis of how self-scanning solutions can improve efficiency and customer experience

Questions

Profitability

- According to you what is the key success factor of this store?
  - What is your focus right now? Why?

- What will be the greatest challenge in generating profits in the future?

Technology swat

- What are the major possibilities with adding technological solutions to store operations, such as self-scanning, mobile applications, inventory management?
  - Are technological solutions a tool for cost cutting or tools for business development?

- What are the main threats with adding more technological solutions to the store?

- Which technological solutions do you use today regarding
  - Inventory and back office management
  - Checkouts
  - Wi-fi

- Which technological solutions would you like to have in the store?

Other questions

- How does your consumer base look like, do you have many returning customers or many new customers?

- Do you have a loyalty program?
  - How does it work?

- How much shrinkage do you expect that you have each year?(good 3-5, bad 9-15)
  - Referring to losses of products bought that neither is found in inventory or sold
Appendix 4: Interview, Business Sweden
Interview, Business Sweden, New York, 2016 03 09

Purpose
The purpose of this interview is to understand the main difficulties and implications for a Swedish company to establish on the northeastern American market.

Our investigation
We are two master students from the Royal Institute of Technology in Sweden and we are currently doing a master thesis within industrial marketing where we try to investigate the current need of technological solutions within the northeastern American food retail industry, more specifically the need for self-scanning applications and similar solutions. Our commissioning company that both provides these solutions and supports our investigation seeks to expand into this new market.

Questions

About you and business Sweden

• **Please tell us more about you and business Sweden, what is your background and what is your role in the organization?**

  Interviewee 1: Retail sector, has worked on a large American retailer before.
  Interviewee 2: Management consultant, IT and Manufacturing sector.

• **Which services do you at business Sweden provide?**

  Three legs: Market and brand Sweden, private consulting/management consulting, back office/admin/support – handle administration bookkeeping etc., back office partner.

• **How do you at business Sweden work with a new client that desires to establish on the market. Eg how would you work with Datema?**

  They to what we are doing now, market analysis, potential partners, customers, market structure → provides consulting and a holistic view of the market. Experienced within the field. Act as a “hjälpande hand” during the whole establishment process. Can register and set up the company, the time it takes depends on how fast they get the information.

Establishing

• **We are quite unfamiliar with the establishment process on the American market, according to you what would be the most common way to do so?**
  • Is there a specific checklist /framework?

  • Use a legal counsel and a Partner, important to get a American lawyer from the beginning so all the paperwork is correct. The legal part is of significant importance, risk of law sues!
  • Company type; use a lawyer’s advice to start the right company, eg Swedish “aktiebolag “.Becomes of great importance when money will be sent to Sweden.
  • State, all states have different laws, eg tax and legal requirements.
  • Where business is done, a common pitfall is to try to run the company from abroad. Local presence is necessary for being successful in the US. Local market differentiates a lot.
  • The name has to be trademarked directly when the company is established.
• Share capital. Use a lawyer’s advice to decide upon the most suitable capital structure of the company. Eg. How many shares etc.
• You need to know what you are doing. It is easy to establish if you know what to do. If not, get someone to do it for you.
• Recommended to establish, can be done in two weeks, depends on how fast BS get the information.
• Upcoming free trade agreement will help the food industry.
  • Should be positive for Sweden, however not sure when it will be taken into action. IICT – trade agreement between Europe and USA

  o Benchmarking cases?
    • Confidential, can be provided if a specific request is sent
  o Common pitfalls?
    • Be sure with the contracts, specific contracts, eg partnership, partner must perform etc. State level is more recommended than national level of partnerships. Different partners in different locations will force them to compete against each other for the national right of distributing the product. Have lawyer during the whole time, from the beginning!
    • Can’t run with left hand, need local presence to be successful.

  o What is the average time to establish on the market?
    • 6 month to two years, need American presence to sell.

• How would you describe the business climate in Northeast America?
  • Americans are very serious when it comes to business;
    • You have to deliver on contracts.
    • Delivery, performance and money are the key factors.
    • Much more confrontational environment if not delivered on time.
    • Negotiations are not as easy as in Sweden.
    • Don’t be open with everything. Americans play their card at the right time.
    • Swedes undersell themselves. In Americans sell themselves. Important so sell you as well.
    • Serious business, you know the expectations. Easier to do business here

• American or SWE CEO?
  • You always need a American manager. Have a swede on site to set the culture and then hire some Americans. Important to have a local sales manager that knows the local environment.

• According to you what is the major differences between the American and the Scandinavian market?
  • Otherwise, what is the main characteristics of the American market

• How are Americans’ perceptions of Swedish companies?
  Great door opener, great open-ness and reliable products.

• Consumer market
  • The customer is always right, always being on the line to service.
  • Lots of regulations
  • BTB focus
General

- **Is there a possibility of contacting you again if we have any further questions later into the project?**
  - YES, keep in contact by email

- **Summary/is there anything that you would like to add that we might have missed out on?**
  - Smaller partners recommended but they will need more support, large partners might be a threat for a small company but it might work in this case since partners show a great interest. Large partners might become lazy, important to have a contract that could be terminated if not followed up on.
  - Legal issues are of great importance
  - Grocery is very fragmented, low and high end actors
  - The US is behind technically compared to Sweden
  - Important to focus on a local market! Great variations across America.
  - Reference cases are of great importance when selling to bigger chains. “Put a dollar on it”
  - An establishment requires time and money, needs consideration
  - An establishment is probably most beneficial on the west coast, east coast, wealthy areas with customer trust, Austin, Colorado, Seattle, South east would be difficult. Local presence is the key!
  - Trade shows, it’s a requirement in the USA, regional trade shows
  - The establishment process is the same even if the industries are different.
Appendix 5: Interviews with Datema

**Purpose:** To gain an increased awareness of Datema’s view upon foreign markets establishments to later being able to present accurate and desirable results.

**Questions:**

**Why expand abroad?**

- Why do Datema desire to establish abroad?
- What is the greatest advantage with a foreign market establishment?
- Which strategy do you work with in current establishment processes, such as in Germany?

**History**

- How has previously establishment processes in the Nordic region taken place?
  - Which strategy did you have then?
- What have you learnt from previous foreign market establishments?
  - What went good/bad?

**Product**

- How easy/hard is it to replicate your solution?
  - In partnerships?
  - When selling licenses?

**Competition**

- What’s your view upon the current competition?
  - Sweden
    - Push/pull
  - Global
    - Push/pull
- Is there an intense competition or is there place for everyone?
- Is a foreign market establishment necessary to gain competitive advantage?

**Cost/Financing**

- How much can Datema invest in an establishment (USA)?
  - Regarding capital and labor?
  - What degree of risk can you manage?
- How long after the start of the establishment process do you need profitability?
Appendix 6: Store Structure

Typical Northeastern Supermarkets

The typical Northeastern American supermarket is a large store (> 300 m²) with a wide range of products. There is a large workforce and the staff consists of many workers that are spread throughout the store, both for helping customers and for managing everyday tasks, such as inventory. It is prioritized by many supermarkets and store managers to have a direct face-to-face interaction with their customers (Interviews 1, 2, 3). One example of this kind of interaction is the checkout, when a customer finishes the purchase and gets the groceries bagged and sometimes carried to their car by the store staff.

Premium

A premium store is defined as a supermarket that targets the high-end consumers. These stores often have several large deli counters, such as bakery, butcher and seafood, which can be seen in figure A1. Furthermore, the premium stores have a focus on serving the consumer with high quality groceries that is natural, organic and healthy. Hence, these stores normally start with a large natural foods department with lots of fresh fruits and vegetables. The meat department is of great importance for a premium store, since meat is central in the American diet (Interviewee 1). In a premium store the prices are high and not as exposed as in more regular stores. In some cases even pharmacies can be found inside these stores, which allow the store to cover more of the consumers’ needs. Furthermore, the most premium stores have a sizeable take away department where hot and cold food is sold by the weight. A good example of a premium supermarket brand is Whole Foods Market, which has a strong resemblance with organic and high quality groceries. Whole Foods Market is the most expensive supermarket chain that was visited.
A regular Northeastern American supermarket is in this study defined as a larger store (>300 m²) with a wide range of products. There is normally several deli counters, but compared to a premium store they are smaller, see figure A2. The regular store has numerous similarities with a premium store, nevertheless, everything is smaller and less sorted. Service centers and instore banks are a common feature and they are often found behind the checkouts. Prices are lower than in a premium store and the signs promoting them are more visible, which indicates that prices are an important tool for being competitive for the regular stores. Two examples of typical regular stores are Star Market and Stop and Shop.
Cost cutter

A cost cutter is defined as a store with a strong focus on low prices. This type of store put great emphasizes on promoting cheap prices on groceries and therefore are signs and price tag very visible. Compared to both the premium and the regular stores, cost cutters have smaller deli departments with a smaller assortment and less counters. However, the assortment of non-deli groceries is wide and often provided in large packages. Moreover, cost cutters have a less focus on healthy and organic foods, which is a distinct contrast from the premium stores, see figure 15. Two examples of cost cutters are Trader Joe’s and Market Basket.

Figure A3: illustration of a cost cutter set-up
Appendix 7: Overview of interviews

The table below presents an overview of all interviews performed during the thesis. Some of the interviews are not included in the result chapter because they were considered to be of less relevance to the study.

<table>
<thead>
<tr>
<th>Interview</th>
<th>Company</th>
<th>Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store manager</td>
<td>Trader Joe’s</td>
<td>Semi-structure</td>
<td>1</td>
</tr>
<tr>
<td>Store manager</td>
<td>Market Basket</td>
<td>Semi-structure</td>
<td>2</td>
</tr>
<tr>
<td>Store manager</td>
<td>Whole Foods Market</td>
<td>Semi-structure</td>
<td>2</td>
</tr>
<tr>
<td>Store manager</td>
<td>Stop and Shop</td>
<td>Semi-structure</td>
<td>3</td>
</tr>
<tr>
<td>Store manager</td>
<td>Shaw’s/Star Market</td>
<td>Semi-structure</td>
<td>2</td>
</tr>
<tr>
<td>Expert POS sales</td>
<td>POS vendor</td>
<td>Unstructured</td>
<td>1</td>
</tr>
<tr>
<td>Expert hardware producer</td>
<td>Hardware vendor</td>
<td>Unstructured</td>
<td>1</td>
</tr>
<tr>
<td>Entry mode consult</td>
<td>Business Sweden</td>
<td>Unstructured</td>
<td>1</td>
</tr>
<tr>
<td>Entry mode consult</td>
<td>Gravity Consulting</td>
<td>Unstructured</td>
<td>2</td>
</tr>
<tr>
<td>C-level manager</td>
<td>Datema</td>
<td>Semi-structure</td>
<td>3</td>
</tr>
<tr>
<td>Sales manager</td>
<td>Cub Business Systems</td>
<td>Unstructured</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>