Online grocery stores: New style

The best business model

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1 Introduction

In this first chapter, I will describe the reason way I have chosen to do my own research, instead of graduating at a company. Paragraph 1.2 defines and explains the research problem. This includes a short description of the core subjects in this research. Next is the justification for this research, followed by the methods I will use.

1.1 Background of the research

Worldwide there are dozens of online grocery stores that deliver groceries on several different ways. Some companies deliver these in cooperation with existing supermarkets, others are so-called pure-play grocers, some deliver in a small area, and some only at large cities. But just very few online grocers are profitable. In the Netherlands, there is just one large-scale online grocer, Ah.nl. Ah.nl is until now not yet profitable.

The Netherlands is a rather densely populated area. Nevertheless, there is just one supermarket chain that dares to enter the online market, but even this company is not profitable yet. Is it that difficult to deliver groceries at home in the Netherlands? What should an online grocer look like to become and stay profitable? This will be the main subject of this Master thesis.

1.2 Research problem, proposition / research issues and contribution

The number of business that started on the Internet, the so-called E businesses (Amit & Zott 2001), increased quickly in the past decade and is still raising today. More people have nowadays access to the Internet and are able to use it than the end of the Internet hype late 2001. In the Netherlands 83%[1] of all inhabitants do have access to a broadband Internet connection. More and more Ecommerce companies did start a new business and proven successful, like Amazon.com, bol.com and Google. However, in the online grocery branch not much success has been booked. Some exceptions that have proven successful are Tesco.com, Peapod.com and Freshdirect.com. In the Netherlands, there were two rather large online grocers, Ah.nl and Maxfoodmarket.nl.

The business models of the online grocers differ on many different aspects. Business models are applied in different areas, used for different strategies and used in several different contexts. Most business models have not proven (yet) to be profitable. Worldwide, just a handful of the online grocers survive the first years and become profitable. This leads to my research question:

What is the most appropriate business model for an online grocery store?

Strategy is the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. A business model is the translation of a company's strategy (Chandler 1962). In other words, the business model represents what a company does to become successful. However, not all business models are successful, especially not in the online grocery branch. To find out which business models are more successful than others are I will compare several of the business models with each other.

To give a clear answer to the research question, a number of different subjects need to be studied. These subjects are ecommerce in general (national and international), online grocery shopping, online grocery stores, (E) business models and characteristics for online shopping in the Netherlands. Most business models can only be used in a limited number of contexts. This is because of geographical or demographical matter. Some grocers are just suitable for a specific type of region, like Freshdirect.com in New York. Other online grocers are especially suitable for delivery to companies.

The results of this research will contain a generic business model for an online grocer. This study will contain seven described business models of (former) existing online grocers. The different cases will be

[1] www.cbs.nl

compared with each other by several variables that are important for the online grocery market or variables that can make differences more clear. To understand more about business models the following sub question will be answered:

What are the business models of current online grocers?

There are a number of different business models available for the online grocery branch. The seven models I will describe in this research need to be described on such a way comparison is possible. To make this possible the models are described by the Business Model Ontology made by Alexander Osterwalder. This ontology is described in Chapter 2.

Which of the examined business models of online grocers are successful?

To answer this sub question, a clear definition has to be described for the term successful. When is a company successful? Does it have to make profit, does it have to make a certain amount of turnover or meet a certain amount of customers per week? When this is clear, the online grocers will be tested to these factors.

Which of the building blocks are the most important for online grocers?

All online grocers have a unique selling point, even if they are not (yet) successful. This may be relevant for my research, because these unique parts of different organizations may be very successful when they are combined. For example, the order pick method of company X may be a good combination with the distribution method of company Y. Even if both companies are not successful yet, the combination can be the success factor.

When all the business models are described, the unique factors are clear and the important Dutch characteristics are defined, a new composed business model can be made. The outcome is the answer of the research question: the best and most appropriate business model for an online grocery store in the Netherlands.

1.3 Justification for the research

In the present literature a lot is written about ecommerce, online retailing and all sorts of other Internet related subjects. This in contrast to online grocery shopping. A number of case studies are present from the early years of online grocery shopping, but there is not a study available with the most appropriate business model for online grocers. In some studies a general view is given about online grocers with a number of specific subjects, like the picking of the orders or the distribution methods.

The result of this research can help starting entrepreneurs to get a clear view of the business models of the online grocery branch. This thesis will be a good input for a business plan. Besides entrepreneurs, also existing retail formulas can use this thesis as input of a research to extend their services with an online delivery service.

1.4 Content of this report

In Chapter 2, a theoretic base is formed for the research. Subjects like strategic management, business models and ecommerce is explained. In paragraph 2.3 I take a closer look at the Business Model Ontology and will explain the nine building blocks and the most important attributes, which I will use during my research. Chapter 3 gives a summary of the seven online grocers and the cross-case analysis is placed here. A more detailed explanation is shown in the appendices. In Chapter 4 I will give the results of my study. Chapter 5 and I will answer the research question by showing the best case business model for an online grocery store. The last Chapter, Chapter 6, will be the discussion with the limitations of this research.

2 Strategic management decisions, business models and Ecommerce

This chapter will give the background information and theoretical foundation for my research. The main subjects are strategic decision, business models and ecommerce. Strategic decisions are the first step to create and maintain a successful company. A more detailed description can be made by describing business models. There are a number of different ways to describe the business model of a company. I will distinguish some of the business model theories in paragraph 2.2. In the last paragraph the current status of ecommerce will be explained.

2.1 Strategy / strategic management decisions

Business models and strategic management decisions are interrelating with each other. Without a strategic plan, it is not possible to describe a proper business plan. In the business model literature a discussion is arise whether strategic decision should be part of the business model (Stähler 2002; Seddon and Lewis 2003). In the Business Model Ontology Osterwalder took notice of this discussion, but decided not to take part of it. Figure 2.1 show he makes a clear distinction between the strategic, business model and process layer. This is the traditional way of describing a business layout. A common used partitioning is between the strategic, tactical and operational level.

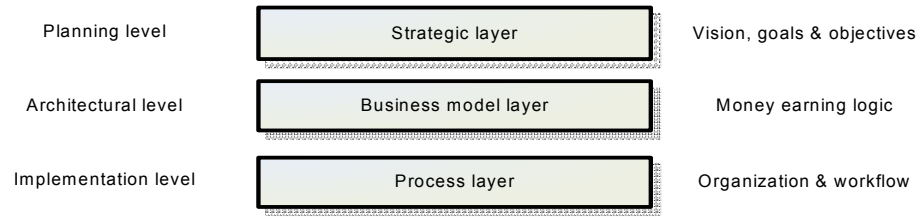


Figure 2.1: layers of an organization

Strategic management is essential to generate a successful business model. Every company should describe a clear strategy with a vision and a mission. According Kaplan (Kaplan et al. 2008) the values of a company are increasingly important. The mission is a brief statement, typically one or two sentences, that defines why the organization exists, especially what it offers to its customers and clients. The vision is a concise statement that defines the mid- to long-term (three- to ten-year) goals of the organization. The values of a company prescribe the attitude, behaviour, and character of an organization (Kaplan 2008). The balanced scorecard is a tool to measure strategic choices made by the companies. Because the four pillars used by Osterwalder and the framework found by Kaplan are primarily the same I will use both for comparing the strategic choices and the business models in this research.

Shafer (2004) argues that a business model is not a strategy, but it facilitates analysis, tests, and validates a firm's strategic choices. Besides that, the business model could reflect the firm's strategic choices. This is similar as Osterwalder describes, but Shafer uses the strategic component directly as a business model component.

2.2 Business models

A business model is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams (Osterwalder & Pigneur 2004). A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable

revenue streams. There are a large number of types of business models, like the merchant model, auction model and franchise. Each type of business models has a specific goal for the company.

Although the term business model was already used in the late 1950's it became widely used in the late 1990's during the Internet hype. Within major magazines and journals, only one article in 1990 used the term 'business model' three times or more; by 2000, well over 500 articles fell into this category (Shafer 2004). For every company it is possible to describe a business model. A business model can be used for every type of business, not only at E-businesses like most literature does present. Some widely used types of offline business models are the merchant model, the auction business model, the direct sales model and the monopolistic business model. Each individual business model is made fit by a company for its own use, because of its own specific characteristics.

Magretta (2002) points out that when a business model does not work, it is because they fail either the narrative test (the story does not make sense) or the numbers test (the Profit&Loss does not add up). Magretta explained here that that the business model for online grocers failed the number test. With the low margin products, the high costs and customers that do not want to pay significantly more for their groceries, there was no way it could work. With other words, the number of customers and the amount of costs will never be sufficient to make an online grocer profitable. The narrative test can also be applied to an online grocer; Maxfoodmarket.nl. This Dutch online grocer delivered groceries for supermarket prices, without charging delivery fees and delivered within two to three hours. After two years, the company went bankrupt.

2.2.1 Definitions and components

At this moment, there is still not a widely accepted definition of the word 'business model'. In the period 1998 – 2002 there were at least 12 definitions described in established publications. Timmers describe the most common used definition. Timmers (1998) defines a business model as an 'architecture for the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and a description of the sources of revenues.' A wide range of theories is currently available with several combinations of business models components. Morris (2003), Amit and Zott (2001), Shafer (2004) and Osterwalder (2004) are just some examples of these theories.

Michael Morris et al (2003) have developed a six-component framework for characterizing a business model, regardless of venture type. Entrepreneurial firms are the main focus of this framework. The six components are:

- Factors related to offering
- Market factors
- Internal capabilities factors
- Competitive strategy
- Economic factors
- Growth / exit factors

The framework consists three increasingly specific levels of decision making, termed the 'foundation', 'proprietary,' and 'rules' levels. The need for three levels reflects the different managerial purposes of a model. There is, at the foundation level, a need to make generic decisions regarding what the business is and is not and ensure such decisions are internally consistent. Because the foundation level addresses basic decisions that all entrepreneurs must make, it permits general comparisons across ventures and the identification of universal models. At the proprietary level, the model's purpose is to enable development of unique combinations among decision variables that result in marketplace advantage. At this level, the framework becomes a customizable tool that encourages the entrepreneur to focus on how value can be created in each of the six decision areas. The usefulness of any model is limited, however, unless it

provides specific guidance and discipline to business operations, necessitating a third level in the model. The rules level delineates guiding principles governing execution of decisions made at levels one and two.

According Shafer (2004), the business model components are divided into four pillars: strategic choices, value network, create value and capture value. The pillars or main components are a result of combining 12 theories about business models. The components Shafer has found by combining 12 studies are shown in figure 2.1. One controversial pillar is the pillar 'strategic choices'. Many authors have stated that the strategy is not a part of the business model, but three of the twelve authors (Hamel 2000, Hoque 2002 and Chesbrough 2003) used the component Strategy in their business model.

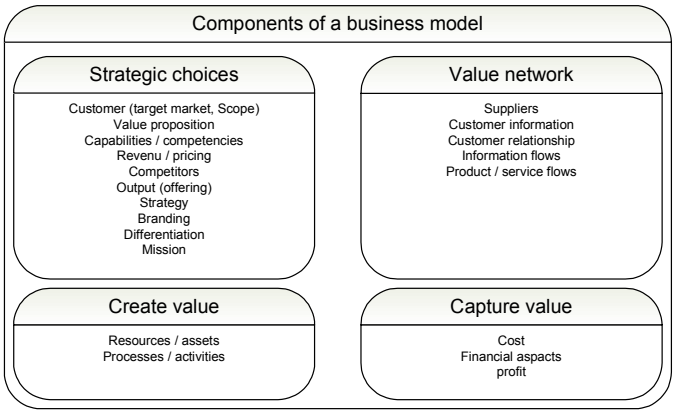


Figure 2.2: components of a business model by Shafer et al.

Also his definition of business models is inferred to this. Shafer defines a business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network. This definition is a 'general' definition for a business model. It can be used for online, as well as for offline businesses.

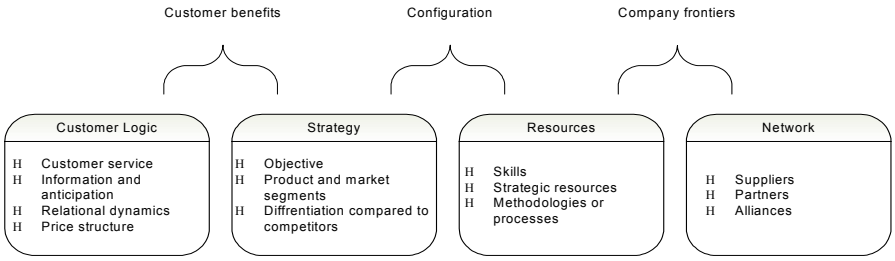


Figure 2.3: business model components by Hamel

Hamel (2000) divided a business model into four different components. He even goes one step further than Shafer did by adding a specific component 'strategy' in the business model. This component includes the objectives, product and market segments, and the differentiation compared to competitors. This last item is also rather unusual. Most business models do only describe their own products, whether it is unique or not. The other three components are more or less similar of the ones Shafer described.

The *'customer benefits'* are the link between the strategy and the customer's needs. The *'configuration'* means that there is a company-specific combination of resources, skills and procedures, which is used to support a given strategy. The *'company frontiers'* refers to the decisions regarding activity, which require recourse to the added value of an external network.

Chesbrough and Rosenbloom (2002) use a detailed definition for a business model. The six functions of a business model are according them:

- Articulate the *value proposition*;
- Identify a *market segment*;
- Define the structure of the *value chain* within the firm required to create and distribute the offering, and determine the complementary assets needed to support the firm's position in this chain;
- Estimate the *cost structure* and *profit potential* of producing the offering, given the value proposition and value chain structure chosen;
- Describe the position of the firm within the *value network* linking suppliers and customers, including identification of potential complementors and competitors;
- Formulate the *competitive strategy* by which the innovating firm will gain and hold advantage over rivals.

The six attributes collectively serve additional functions, namely to justify the financial capital needed to realize the model and to define a path to scale up the business.

Gary Hamel (2000) has a different view of the new business models. In his opinion open innovation is the solution for finding the best business models. A company should have a different business model than the competitors. The company should also have some kind of a monopoly, even when this is for a short period. He called this the profit accelerator.

Amit and Zott (2001) describe a more resource-based definition: *A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities.* Transaction content refers to the goods or information that is being exchanged, and to the resources and capabilities that are required to enable the exchange. Transaction structure refers to the parties that participate in the exchange and the ways in which these parties are linked. Transaction structure also includes the order in which exchanges take place (i.e., their sequencing), and the adopted exchange mechanism for enabling transactions.

Osterwalder (2004) describes the definition on a more detailed way. His definition is: A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams. He described in his business model ontology a business model with four pillars. These pillars are product innovation, infrastructure management, customer interface and financial aspects. These four pillars are divided into nine building blocks. Each building block has a number of attributes to get a more detailed description. This ontology is very suitable to compare business models, because of the degree of detail and the extended available information about it. The ontology is the result of a doctor-thesis.

In this research I will use the ontology described by Osterwalder. The business model ontology of Osterwalder is based on the Balanced Scorecard (Kaplan 1992). This ontology is meant to compare business models and does this on a detailed way. There are already a number of variables (attributes) defined, which is very useful. By describing the business models with the ontology, a large and extensive case study will be made. For my research, I will compare seven business models with each other. The business models have all different features, which makes it hard to compare. The Business model ontology makes it easier to compare, because a number of variables are already described. It is also rather easy to make additional variables, because of the building block classification. The nine building blocks give a clear view of the different possible features of the online grocers. A disadvantage is that the factor 'strategy' is not integrated into the ontology, like discussed earlier. This does not have to be a problem. An extensive described business model is a translation of the strategy. In the next paragraph I will explain the Business Model Ontology in more detail.

2.3 The Business Model Ontology

Alexander Osterwalder (2004) has done research to a specific type of business models, E-business models. His study included 12 business model descriptions, which resulted in a number of building blocks. These building blocks are divided into a number of pillars and attributes. This E-business model ontology can be divided into nine different building blocks. These nine building blocks are lined out in table 2.1.

Pillar	Business Model Building Block	Description
Product (Innovation)	Value Proposition	Gives an overall view of a company's bundle of products and services.
Customer Interface / Relationship	Target Customer	Describes the segments of customers a company wants to offer value to.
	Distribution Channel	Describes the segments of customers a company to get in touch with its customers.
	Customer Relationship	Explains the kind of links a company establishes between itself and its different customer segments.
Infrastructure Management	Value Configuration	Describes the arrangement of activities and resources.
	Capabilities	Outlines the competencies necessary to execute the company's Infrastructure business model.
	Partner Network	Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value.
Financial Aspects	Cost Structure	Sums up the monetary consequences of the means employed in the business model.
	Revenue Model	Describes the way a company makes money through a variety of revenue flows.

Table 2.4: Nine E-Business Model Building Blocks

To identify the most common building blocks among business models in the literature Osterwalder compared the models mentioned most often and studied their components. From that synthesis, nine building blocks emerge that cover all the business model components mentioned by at least two authors (Osterwalder 2004).

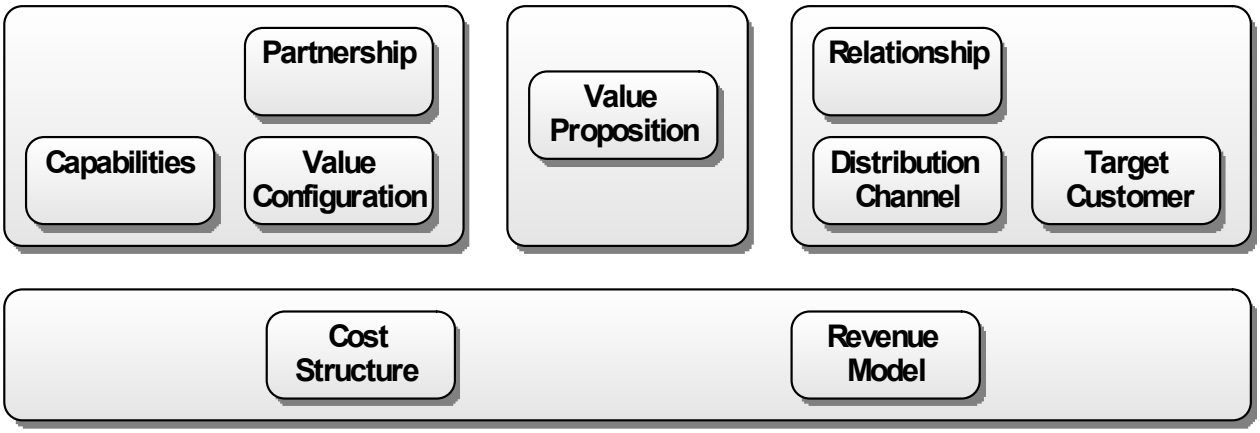


Figure 2.5: Nine components of the business model ontology

The nine blocks are built on four pillars: Product, Customer Interface, Infrastructure Management and Financial Aspects. These pillars are inspired by the Balanced Scorecard approach by Norton and Kaplan (Kaplan and Norton 1992). The nine building blocks are shown in figure 2.4. The attributes described in this chapter are the variables I will use for this research.

2.3.1 Pillar 1: Product Innovation

In general, companies who are not able to be constantly innovate risk to fall into the commoditization trap, because successful products are rapidly copied by competition. Of course innovation is no guarantee for success, but recent research shows that superior market performers are essentially companies that are able to innovate and constantly transform their value proposition (Kim and Mauborgne 1997; Chen and Kai-Ling Ho 2002). For the online grocery market innovation does not only means reducing risks, but also finding methods to become (faster) profitable.

The pillar Product covers all aspects of what a firm offers its customers. This means not only the products and services, but also the manner in which it differentiates itself from its competitors. For an online grocery store the main 'product' is the total delivery service the company offers. The value proposition is the first of the nine business model blocks. Value proposition can also be defined as how items of value, such a products and services as well as complementary value-added services, are packaged and offered to fulfil customer needs (Kambill 1997).

2.3.1.1 Building block 1: Value Proposition

The value proposition gives an aggregated view of a value bundle that a company offers a customer segment it can be further decomposed into a set of elementary offerings. So an elementary offering describes a part of a firm's bundle of products and services (Osterwalder 2004). The offerings can be divided into four attributes. The offering(s) and its attributes will help to observe how the firm's situation is compared to its competitors. It is also possible to attach the attributes directly to the value proposition. This may be done when there is just one offering or when this is more convenient to compare similar products and services. For this business block, I use the next attributes: reasoning, value level and price level.

Reasoning

The attribute reasoning captures the reasoning on why the firm thinks its value proposition could be valuable to the customer. The value is created through *use*, by *reducing customer's risk* or by *reducing the customer's effort*. Customers who decided to buy their groceries by the Internet do it because it is easier and costs less time. The value for the customer will be creating by reducing the effort for the customer. Online grocers create value by reducing the effort for customers. Customers does not have to leave their homes to shop for groceries.

Value level

This attribute will measuring the utility for the customer. By measuring the value level of a company's offer it allows the firm to compare itself to its competitors. The utility variables are me-too, innovative innovation, excellence and innovation. For an online grocer there are several topics be more innovative than its competitors. Such as the website, the logistics, order pick system and so on. The business ontology uses this attribute for the customer's point of view.

Price level

This attribute compares the price level of the value proposition with the one's of their competitors. The price level is subdivided into a four-point scale: Free, economy, market and high-end. The last three items mentioned are possible for online grocers, although *economy* is not very likely to happen. The cost for an online grocery store are simply too high.

The offerings need to be based on the problems and uncertainties of both the customers and the suppliers (Ford 2006). First, the customer does need to have a problem to change its behaviour. If the customer does not have a problem with the conventional way of shopping, he or she does not have a specific reason to change to another supermarket and certainly not to an online supermarket. Second, the market or transaction uncertainties can be a disadvantage for the online grocery branch. People want to be in control. When a customer is shopping, he can choose the products he want and immediately know when a product is not available. Customers who order the groceries online are not 100% sure, if the products will be

delivered. The company has to build up trust by delivering a good service and qualitative good products. With other words, the products and services have to meet the needs of the customers.

The offerings need also designed in cooperation with the suppliers. The company can only deliver products from the assortment of the suppliers. When a new online grocer enters the market, the total sales will be very small in the first period. At the same time, the investments for the supplier as well as the online grocer are very high. This results in a hesitation of suppliers to help these new companies. Economy of scale is very important in the grocery branch and it will take some time to become even as large as a medium size grocery store. These uncertainties prevent suppliers to help new innovative ideas for online grocers.

2.3.2 Pillar 2: Customer interface

Customer relations or interface refers to the way a firm goes to market, how it actually reaches its customers and how it interacts with them. This block covers all customer related aspects. The three outlined items are target customers, the distribution channels and the customer relationship.

2.3.2.1 Building block 2: Target Customer

A target customer can be defined as the focus group for the company. It segments the type of customer the company wants to reach, for example, families with children or elderly people. Companies refine the target group by composing specific characteristics. The set of characteristics of a target group are called criterion. These criterions could be of geographical or socio-demographical nature.

An Anderson Consultancy study (1998) identified four categories of online grocery shoppers:
Shopping avoiders, who dislike shopping;
Necessity users, who have limited ability to go to stores;
New technologists, who are young and like technology;
Time starved people, who are price insensitive and need more free time.

This research was carried out in 1998. Nowadays, most online grocers place their focus especially on time-starved people (working couples and families with children) and people who do not like shopping. The ontology does not have any attributes for this building block. For this research, I will introduce two ‘attributes’, namely the customer level and business vs. Consumers (optional).

Level of customer

The level of customers is closely related to the price level in the Value proposition. This attribute does name the customers more concrete, like the upper class, working class or everybody with an Internet connection.

Businesses vs. consumer

In some cases it is possible to distinguish business and consumers. This is only possible if the figures are available.

2.3.2.2 Building block 3: Distribution Channel

The distribution channel describes the transfer of products and services to the customer. A channel allows a company to deliver value to its customers. This can be done directly for example, by a sales force or indirectly through intermediaries. Distribution channels can be composed into a set of channel links. A channel link describes a part of a firm’s channel and illustrates specific marketing roles. The attributes of a channel link are described in appendix XX. The attributes are Customer buying cycle, reasoning, value level and price level. The attributes reasoning, value level and price level are inherited by the element Offering. The fourth attribute is the customer buying cycle.

Customer buying cycle

This attribute has the goal to identify which one of the functions of the customer buying cycle fulfils a channel link. From the customer realizing his needs, through the collection of product and price information, the sales transaction all the way to the use of the product or service, the Customer Buying Cycle reflects all possible contact points between a supplier and a customer in the context of the acquisition, possession and disposal of the product or service. This attribute is important for online grocers, but does not differ between them.

2.3.2.3 Building block 4: Relationship

The last items for the customer face pillar are the customer's relationships. The customer relationship component describes the relationship a company establishes with a target customer segment for contributing to the customer equity of the company. There are two attributes for this building block: customer equity and function.

Customer equity

The customer equity can be explained as a set of mechanisms. By the mechanisms trust, personal relationships and a recognizable brand can be created. The relationships can be classified according to their customer equity goals, which are acquisition, retention or add-on selling (Blattberg et al. 2001).

Function

This attribute describes which functions the relationship MECHANISM fulfils. It can personalize a relationship, contribute to customer trust, or contribute to brand building. This will lead to attract new customers and retain existing ones.

2.3.3 Pillar 3: Infrastructure management

The infrastructure management pillar is about the *how* a company creates value. It describes what abilities are necessary to provide its value propositions (pillar 1) and maintain its customer interface (pillar 2). Infrastructure Management outlines the value network that generates economic value through complex dynamic exchanges between one or more enterprises, its customers, suppliers, strategic partners and the community (Allee 2000). In other words, this pillar specifies the business model's capabilities and resources, their owners and providers, as well as who executes which activity and how they relate to each other. This pillar is divided into three building blocks, which are capabilities, partnership and value configuration.

2.3.3.1 Building Block 5: Value Configuration

The main purpose of a company is the creation of value that customers are willing to pay for. This value is the outcome of a configuration of inside and outside activities and processes. The value configuration shows all activities necessary and the links among them, in order to create value for the customer.

Configuration type with activity nature

There are three configuration types distinguished in this business model ontology, which are the value chain (Porter 2001), the value shop and the value network (Stabell & Fjeldstad 1998). The different types are each for different types of businesses. Each of the configuration types has a number of primary activities.

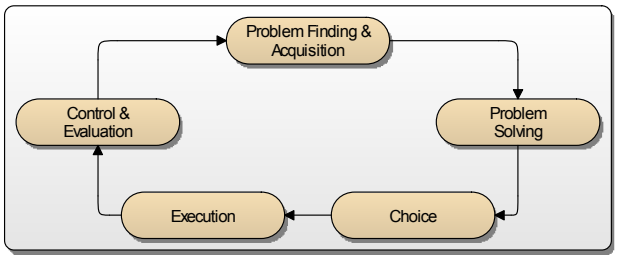
Value chain

The value chain contains the different activities a firm performs to deliver low-cost or differentiated products. The main activities of the value chain framework (Porter 2001) include inbound logistics, operations, outbound logistics, marketing and sales, and service.

In the value chain, firms create value by transforming inputs into more refined outputs (Porter 2001). For online grocers, a number of single products are put together to create a total order. The total value chain includes the order entry by the website, picking the order, delivering the order and the after service. Even though an online grocer is a so-called E-business, the bottleneck is the physical part of the business.

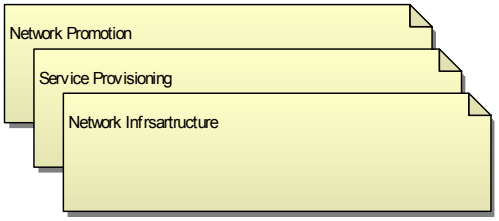
Value shop

In this value configuration type, a firm concentrates on discovering what the client wants, figures out a way to deliver value, determines whether the customer's needs w ere fulfilled and repeats the process in an iterative way if necessary.



Value network

The value network creates value by linking clients or customers who are or wish to be interdependent. The firm itself is not the network, but it provides a networking service.



Activity level

There are two types of activities the ontology distinguishes, which are the primary activities and the supporting activities.

Types of online grocers

The three most dominant surviving business models are fulfillment from stores by 'brick-and-click' (also called click-and-mortar) supermarkets, pure play grocers and hybrid strategies (Scott et al. 2008). Brick-and-click supermarkets do not have specialized dedicated warehouses, picked existing supermarkets. The investments are low and the experience about groceries is already available. The groceries are picked in the store nearby the customer. Online grocers who decide to use fulfillment centers have to invest a more significant amount of money. These distribution centers are new and distribution lines are not always available. It will take significantly more time to break-even. The last type of online grocers is the hybrid grocer. These grocers may use a warehouse and existing locations. In the case of Peapod the warehouse is placed in the same building as the supermarket itself.

Order pick methods

The most online grocers are using the pick the orders in a distribution center. This can be done manually by hand and simple equipment or automatically by using conveyor belts and computers. Another possibility is picking the orders inside an existing supermarket. This method is used at a large number of British supermarkets.

The choice for an order pick method has a large influence of the costs of the business. When a company starts small the costs will increase gradually. There will be a better balance between the costs and the revenue in comparison when a company first invests in a large order picking 'factory'.

Distribution methods
The distribution to the homes of the customers can be done by a number of ways. The methods used by the online grocers in this research are by a hub-and-spoke model, delivered directly from the DC or supermarket and by an external company.

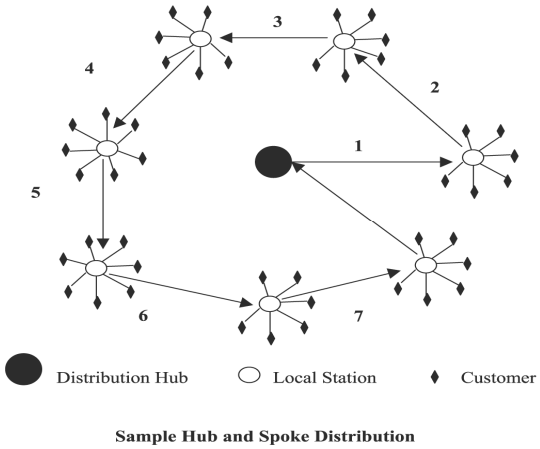


Figure 2.6: hub-and-spoke model

The hub-and-spoke model is a commonly used model to distribute the groceries. In this model the order are picked in a central distribution center. The picked orders are then transported to a local distribution station with a large truck where the orders are put in a smaller van for the final distribution to the customer (figure 2,5). A disadvantage is the large investment costs of the trucks, vans and extra local centers. Other companies deliver directly from the distribution centers. Companies are using this method, because they have a large number of smaller center in a number of regions. In some cases the companies who use a hub-and-spoke model do also deliver from their main center in that region. Also here are the investments costs rather high, because of the number of DC's and the stock that needs to be available in every DC.

Another method is by outsourcing the distribution to the experts, like couriers and express services. The distribution is one of the main difficulties in the branch and may be tackled by outsourcing it. It is possible to make clear agreements on the price and make it more predictable. It also may be cheaper, but that depends on the agreement with the external partner. On the other hand, by outsourcing the distribution, the control over de quality of delivering the orders may slink. There must be a lot of trust and good agreements to cope with this.

Assortment
The size of the assortment is very different between online grocers. Some company only offer the daily groceries, while other grocers also offer a large number of additional products. Many of the grocers make use of the existing network of their partners. This means that these online grocers have the access to 10,000 or even 30,000 products. The size of the assortment may be an important factor for a successful online grocer.

Time slots
Time slots, or delivery windows, vary at the different online grocers. Some online grocers have a one-hour time slot, a two-hour slot, and others a more diverse one. To avoid delivery failures as much as possible, it is customary for the company and the customer to mutually agree on a narrow delivery window. In the figure 2.6, the time slot of Tesco and Peapod is shown. Tesco is using a standard one-hour slot. Most of the other

grocers have a range of two hours. At Peapod, the range varies more than other online grocers do. They offer a discount if a customer chooses a wider time slot. An important aspect is the delivery time window offered to customers (Punakivi and Saranen, 2001).

Time	Wed 04/06	Thu 05/06	Fri 06/06	Sat 07/06	Sun 08/06	Mon 09/06	Tue 10/06
10am-11am			£5				£5
11am-12pm			£5	£5	£5		£5
12pm-1pm		£5	£5	£5	£5		£5
1pm-2pm		£5	£5	£5	£5		£5
2pm-3pm		£5	£5	£5	£5		£5
3pm-4pm		£5	£5	£5		£5	£5
4pm-5pm		£5	£5	£5		£5	£5
5pm-6pm			£5	£5		£5	£5
6pm-7pm			£5	£5		£5	£5
7pm-8pm			£5	£5		£5	£5
8pm-9pm		£5	£5			£5	£5
9pm-10pm			£5			£5	£5

Thursday, June 12 Delivery		
Morning (Submit Order by 04:00PM Wednesday Jun 11)		
7:00AM - 9:00AM		
7:30AM - 11:00AM	ETA	Save $1.00
8:00AM - 10:00AM		
9:00AM - 11:00AM		
9:30AM - 1:00PM	ETA	Save $1.50
10:00AM - 12:00PM		
11:00AM - 1:00PM		
7:00AM - 11:00AM	Unattended	
Evening (Submit Order by 11:59PM Wednesday, June 11)		
3:30PM - 7:00PM	ETA	Save $1.00
4:00PM - 6:00PM		
5:00PM - 7:00PM		
6:00PM - 8:00PM		
6:30PM - 10:00PM	ETA	Save $1.00
7:00PM - 9:00PM		
8:00PM - 10:00PM		
3:00PM - 7:00PM	Unattended	

Figure 2.7: time slot for Tesco (left) and Peapod (right)

2.3.3.2 Building block 5: Capabilities

Capabilities can be describes as repeatable patterns of action in the use of assets to create, produce, and/or offer products and services to the market. These capabilities depend on the assets or resources of the firm (Bagchi and Tulskie 2000). Increasingly, they are outsourced to partners, while using e-business technologies to maintain the tight integration that is necessary for a firm to function efficiently. To describe the capabilities the resources of a company should be described. A variable or attribute for the resources is the resource type.

Resources type

The groups of resources a firm or its partners dispose can be classified of among three rough categories, namely, tangibles, intangibles and people-based skills (human).

2.3.3.3 Building block 7: Partnership

Partnerships are voluntarily initiated cooperative arrangement between two or more independent companies that carry out an activity together. A company's partner network outlines which parts of the activity configuration and which resources are distributed among the firm's partners. In general, partnerships and alliances have become an essential component in the strategies implemented by most companies.

For decades management literature has emphasized the importance of partnering and alliances and has produced a large body of literature from which I take two definitions. Gulati and Singh (1998) define alliances as any voluntarily initiated cooperative agreement between firms that involves exchange, sharing or co-development, and it can include contributions by partners of capital, technology, or firm-specific assets. Dussauge and Garrette (1999) add some elements by defining alliances as links formed between two - or more - independent companies which choose to carry out a project or specific activity jointly by coordinating the necessary skills and resources. They conclude that carrying out this together will be better than pursuing the project or activity on their own, taking on all the risks and confronting competition alone or merging their operations or acquiring and divesting entire business units.

Partnerships are mainly based on commonly negotiated terms and conditions. This is the reason why the ontology has a sub-element for partnership: the Agreement element. It aims at explaining the motivation, function and conditions of an arrangement between business partners.

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
- Strategic importance: {0-5}
- Degree of competition: {0-5}
- Degree of integration: {0-5}
- Substitutability: {0-5}

Reasoning
Companies engage in partnerships for specific reasons. The attribute reasoning describes the firm's motivation for the agreement. The attribute is divided into three options, which are optimization and economies of scale, reduction of risk and uncertainty and acquisition of resources.

Strategic importance
The strategic importance of a partnership how relevant a relationship is to the business success of a company. The more strategic a partnership the higher the score, which goes from 0 to 5.

Degree of competition
The degree of competition indicates if the partner with whom the firm has signed an agreement is a competitor or not. Partnerships between competitors in one domain while they compete in others are quite common today as outlined above. The degree will be displayed in a five point scale.

Degree of integration
The degree of integration measures how closely two actors are linked together. This can differ from one type of partnership and agreement to another. Also here the degree will be displayed in a five point scale.

Substitutability
The substitutability of a partnership indicates how easy it would be to find a substitute partner offering the same arrangement. The easier it is to find a substitute the higher the score, which goes from 0 to 5.

2.3.4 Pillar 4: Financial Aspects

The Pillar Financial Aspects is the last pillar of the ontology. The financial figures are commonly the most used variables to decide if a company is successful or not. In the ontology this pillar is the least important one, because it is a result of the other pillars. The financial aspects include the building blocks Revenue model and Costs.

2.3.4.1 Building block 8: Revenue Model

Every company has to earn money to survive. Every product or service needs to be paid by customers, which results in revenue. Revenue is the total amount of money generated by all the sold products or services. For this research only one attribute is used from the ontology; the streaming type. The price method is not interesting, because all the online grocers uses the same pricing method, namely market pricing. The prices are calculated based on real-time market conditions. This does not mean that there are not other variables available. The grocers are also compared on the variables turnover, the profit or loss the company makes (if available), the number of orders and the average order size.

The problem here is that just a limited amount of data is available. The data that is available cannot always be compares to the data of other online grocers, because it was gathered is a different period. For example,

it is not realistic to compare Webvan data from the year 2000 with Tesco's figures from 2007. Although it will be hard to compare available variables, a number of variables are always useful.

Streaming type
The streaming type describes the type of economic activity with which a company generates a revenue stream. A company can generate revenue by selling, lending or licensing a product or service, taking a cut o a transaction or relying on different sources of advertising.

- Turnover: the amount of total sales
- Delivery fees the charges per delivery
- Profit / loss: the amount of profit or loss
- Number of orders: the total numbers of orders per week
- Average order size: the average size of an order

2.3.4.2 Building block 9: Cost Structure

The last building block is called Costs. Osterwalder does not pay much attention to this block, because there are already a lot of models who tell what is good or bad. He only splits them up in percentages. To complete the total view of online grocers I will add some attributes. For some online grocers it is possible to show the investment costs and the operational costs. The most important costs are the logistic costs, also called killer costs.

'Killer costs': Logistics
To calculate the profit you have to take the turnover and decrease it with the costs. Companies try hard to convince as many customers as possible to buy products at their company instead of at competitors, but keeping the costs low may even be more important to become profitable. For online grocers the costs were and still are a problem to become or stay profitable. Many of the companies are not able to tackle one type of costs: the logistic costs. The last mile is the term for this problem. The last mile is the complete delivery process to the customer. Webvan stated to be the last mile specialist, because the company just focused on this process. The mission of the company was to deliver the last mile of e-commerce, meaning the delivery of merchandise from a Dc to a customer's doorstep (MCafee and Ashiya 2006). For example, the costs per delivered order for Webvan were estimated for $15 per order (Delaney-Klinger et al. 2003).

The building block Costs has an important connection with Value Configuration. The order picking and distribution have to be as efficient as possible to minimize the costs. In figure 2,8 the workflow is shown of the process conventional shopping and online shopping.

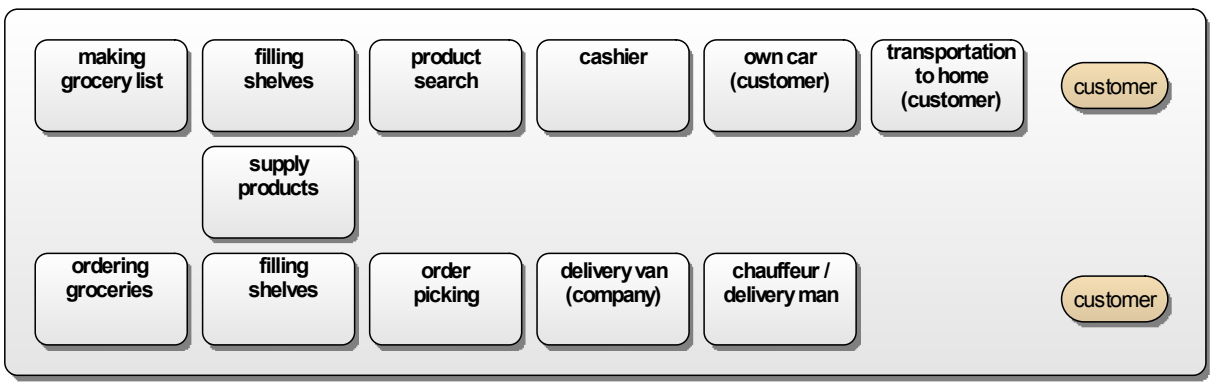
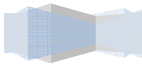


Figure 2.8: Workflow conventional shopping vs. online shopping

2.4 Conclusions

In this Chapter, the strategic importance of business models and a number of business model theories are explained. The business model ontology (Osterwalder 2004) is described in more detail and will be used in this research. The pillars, building blocks and attributes are explained and will be used to compare the online grocers with each other. The ontology is extended with information about online grocers. Some attributes are added to the existing ones, which makes the ontology more suitable for the comparison for online grocers.



3 Research method

From the start of this research, I noticed that it will be difficult to find sufficient information about online grocers. There is not much research done about online grocers, especially not about comparing them by their business models. The combination of online grocers and business models can be difficult, because of the lack of information. Some grocers may give a detailed description of their physical operations, others may be distant with making their inside information public. With this problem in known, what will be an appropriate way to answer the questions?

I will describe the business models by the business model ontology (Osterwalder 2004). I will use the variables that are explained in Chapter 2. These variables give a total view of the online grocers. Especially the pillars Value configurations, Partnership and Costs seems to be important by looking at the present literature.

3.1 Two types of analysis

The research method can be divided into two parts; the in-depth case analysis and the cross case analysis. I have chosen for this method, because I needed to compare the different aspects of the online grocers with each other. By using the business model ontology (Osterwalder 2004) a predefined set of variables is available. The ontology described a detailed set of building blocks and variables to described the grocers as equal as possible. The ontology is also specifically developed for comparing companies with each other. The reason to use the ontology is the depth it described the business models. Each building block has several variables, which are developed to compare business models. Some examples are the price level and the value level. These variables can be placed in a value map (Kambill et al 1997) so a number of business models can be compares with each other. The ontology is a combination of nine models or theories. Each item in the ontology is at least used by two different authors. The building blocks variables are explained in more detail by the attributes. The attributes are the variables I will use in this research. This ontology is also very abstract, because it can be used for a large number of ecommerce businesses. Because of this, it may be necessary to specify some building blocks and create new attributes.

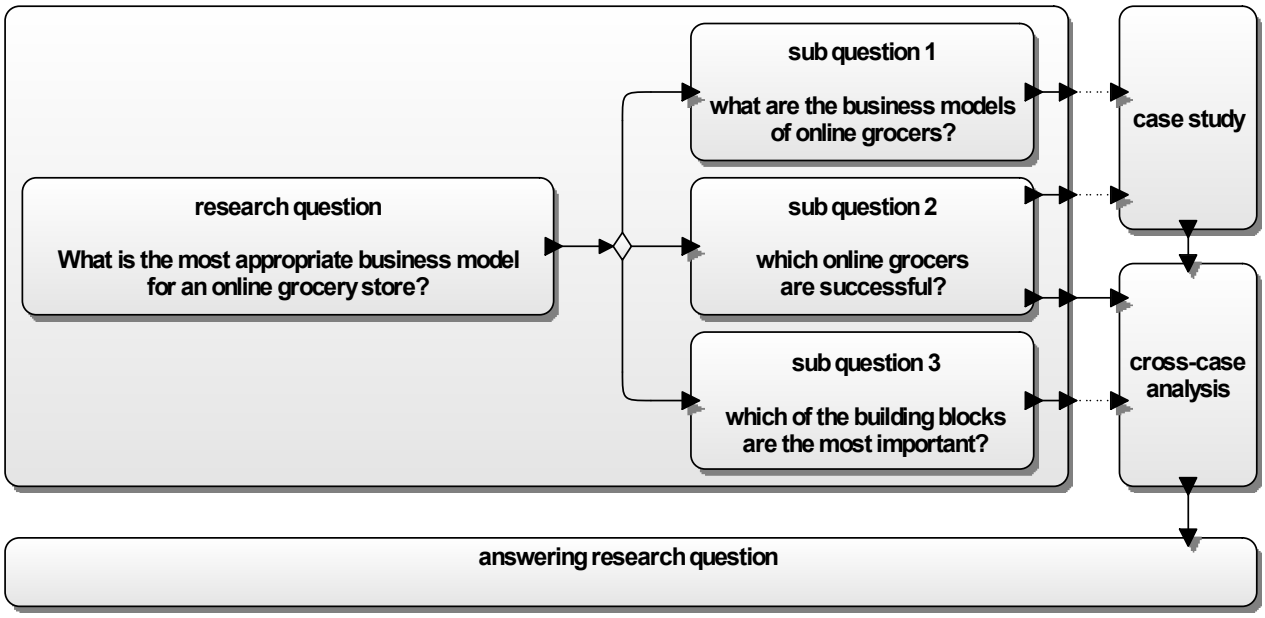


Figure 3.1: Research model

3.2 Answering the sub questions

To make it possible to answer the research question, I have to answer the sub questions first.

The first sub question I will answer in this research is:

What are the business models of current online grocers?

To answer this question I have to know which online grocer I will use in this research.

The cases are selected on a geographical matter, the degree of success and by the degree of information available. These seven online grocers are all large companies and sometimes part of a conventional supermarket formula. Another criterion was the uniqueness of the company. Every selected case does have a unique feature for the online grocery branch. This can be the order pick method, the way of delivery or the extended services it offers. A second aspect is the amount of information. The amount of information is necessary to make the research possible to do. There are dozens of online grocers in the world, but there is just limited amount of information available of these grocers. From the seven online grocers just two are profitable, three still exist without making profit, and two have gone bankrupt. It is important to find out what goes well for the existing ones and what went wrong for the unfortunate two grocers. The information about online grocers is available as said in many literatures. Besides that, Internet research will be an important information source. Press releases, corporate information, branch information and retail experts are just a small number of information available. The best way to get the most objective information is to ask it themselves. For Dutch online grocers this is rather easy, because interviews can be arranged. For online grocers in foreign countries taking interviews may not be an option. The Internet and literature will be the main information source.

For this research I have chosen to describe seven online grocers in four different countries. All the cases are described with the variables of the Business Model Ontology explained in chapter 3. The cases will give a clear view of how the business works and shows the success factors of each online grocer.

The grocers I have chosen are Ah.nl, Maxfoodmarket.nl, Tesco.com, Ocado.com, Webvan.com, Peapod.com and Leshop.ch. From these grocers I could find enough information and all these grocers are different in a kind of way. Ah.nl and Tesco.com are part of a large retail / supermarket concern. Tesco is the only grocer in this research that picks the orders from supermarkets. The company is market leader in the UK and, most of all, market leader in the world. Ah.nl is the market leader in the Netherlands. The company is part of a large supermarket formula, just like Tesco. A large difference is that the orders are not picked in a supermarket, but in a dedicated DC. Another reason is that it is rather easier to gather information from this company. The company is Dutch, which makes it easier to contact them. For this research I have taken an interview with the manager Ecommerce of Ah.nl. This also counts for Maxfoodmarket. For this research I was able to speak with the founder of the company, Dick Groot. This company went bankrupt in 2002, but was in the time also as large as the Ah.nl, in that time called Albert.nl. Maxfoodmarket had a number of unique service features no other online grocer offered in the world. Ocado is another online grocer in the UK. The company is the number four in the UK market, but is capable to pick all their 12,000 order per day form just one center. Ocado is the only independent online grocer that is still active. The company has built a large center with the size of ten football fields near London. This type of order picking is unique of its kind.

Webvan did also used a highly automated way of order picking, but used decentralized warehouses. The way of order picking was also different than Ocado, because of the use of a carrousel model. This will be explained later in this thesis. Another reason for choosing Webvan is that the company is the number one Ecommerce flop of the Internet hype. The company was able to make a very large loss in just a short period of time. Webvan was a grocer from the US, just like Peapod. Peapod is at this moment the largest online grocer in the US and one of the view who is profitable. Besides that, the company is the oldest in this

research and it is relatively easy to find information about the company. Peapod is taken over in 2001, just before it went bankrupt. The last grocer is Leshop.ch. Leshop is the market leader in Switzerland and is now part of Migros. The company went bankrupt, but has raised from its ashes 6 months later. The company has a unique way of distributing the orders to the customers by making use of a number of distribution partners.

I used the attributes of the ontology for describing the business models. I use the described attributes to describe the online grocers. The attributes of the pillar Product are found at articles on the Internet and by literature. Some of these attributes may be classified on a subjective way.

Which of the examined business models of online grocers are successful?

By the case study and the cross case analysis it is possible to know which online grocer is successful. Especially the case study is useful to define if a company is successful. The profitability is the main factor to measure the degree of success. I will also add for every online grocer the most important success elements.

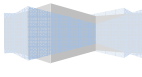
After the in-depth case studies of the seven online grocers, the next sub question can also be answered. The question is:

Which of the building blocks are the most important for online grocers?

The ontology has nine building blocks. Each building block is important to describe a company's business model. Specifically for online grocers, a number of building blocks may be more important than others. For the final conclusion this is important, because it will be necessary to put the focus on the building blocks that have the largest impact on the online grocer.

Through cross-case research I will describe the differences and similarities between the business models. This study will give a better look at the status of online grocers in the world in different areas and contexts. Most online grocers have a special feature or strategy that makes the company different than others. I will pay special attention to those special features, because it may be the success factor for online grocers in general. A pitfall is that it may be successful in just that context. Closer research of the specific context should make this clear. A second result of this cross case analyses is a list of the most important building blocks. The information about this last result will mainly be gathered by literature research. After this analysis a new, more in-depth study will be done for these 'most important' building blocks.

In the continuation of this thesis the online grocers will be described in detail. Each grocer is described according the earlier mentioned ontology. The cross-case analysis will follow after that to make clear what the differences are between the online grocers.



4 Case analyses and results

This Chapter provides an overview of the seven online grocers. Each online grocer is also described in more detail, which can be found in the appendices. In paragraph 4.2, the cross case analysis is applied to each building block. The building blocks are treated separately and concluded with a short summery of the described building block.

4.1 Introduction of the online grocers

There a dozens of online grocers in the world. Most of these grocers are not successful and go bankrupt within one or two years. Many of these grocers never become large enough to be interesting to write about. Just a small amount of innovative grocers are interesting enough to be taken over or large enough to guarantee its existence. Seven of these interesting and innovative grocers are described in this research. In this paragraph I will introduce the seven online grocers.

4.1.1 Ah.nl (NL)

Ah.nl is the online grocer of the supermarket chain Albert Heijn in the Netherlands. The formula started with the current DC method in 2001 with the name Albert.nl. This formula renamed its business to Ah.nl in late 2007, because the name Albert Heijn would have a more positive impact on the sales. Before 2001 the service already exists. In 1987 the Albert Heijn concern started experimenting with home delivery of groceries with the name 'James telesuper'. This service was only available at dense populated areas in the Randstad. People could order by phone or fax and the order was delivered the next day. Since 1998 it was possible to order the groceries by computer with the name AH Thuisservice. The groceries were picked in the nearest Albert Heijn store. Ah.nl has two distribution centers from where its delivers the groceries, in Rotterdam and De Meern. However, at the start Albert.nl did had three Dc's, but the third one in Heemstede was closed just after one year. The number of sales was disappointing and could easily be done by the two remaining centers. From the two DC's Ah.nl is capable to deliver groceries to 75% if the Dutch population. All these regions are around urban areas. A in-depth case study is placed in the appendix.

The information for this case was gathered by visiting the website, internet research, academic literature and by interviews. An important limitation of this case study is that not all information is verified. Information for internet articles may be subjective. I have used this information, because it was the only information available for the company. On the locations where I have used this type of information a hyperlink is placed at the bottom to the article.

Success
The most important element for success at Ah.nl is its network. The company can make use of the existing distribution routes for the conventional supermarkets. The DC's are supplied two times a day, which guarantees an optimal number of stocks. A second element is using the brand name. In 2007, the online grocer changed its name from Albert.nl to Ah.nl. With this change, the company tried to create more trust and more recognition for customers. A third element is not something that the company can influence. Ah.nl is the only large-scale online grocer in the Netherlands. This gives them a large advantage to other competitors in the past and maybe for the future. This does not mean that other grocer not make a change. Maxfoodmarket was a serious competitor in the period 2000-2002.

4.1.2 Maxfoodmarket (NL)

Maxfoodmarket.nl was also an online grocer in the Netherlands. Owner Dick Groot founded it in 2000. The company started its business in Utrecht with its first Maxfoodcenter. Later the company opened two more centers. Each center had a maximum capacity of 3,500 orders per week. This is rather small, but each center had to cover a small area. The company was highly automated. The only manual aspects were the order picking and of course the delivery of the orders. The stock management system is similar to the one Ah.nl nowadays uses. The order pickers had a portable scanning device attached to a finger. The order picker just had to point at the barcode to scan it. A nice novelty was that only the right product could be scanned before going on to the next product. The effect was a near perfect system with a 98% of correct delivered orders. Nevertheless, even this perfect system could not prevent that the company had to cease business at the end of 2002. At several forums on the Internet, people were disappointed in the fact that the company had to cease its business. People were very positive about the service, in contrast to Ah.nl. Reasons to quite were the high investment costs, catch the losses in the first years (which were higher than expected) and technical difficulties at the end of 2001. Besides that, the Internet bubble collapsed in 2001 and competitor Ahold had troubles with discovered fraud. The consequences were that private investors became more suspicious and were not willing to invest anymore in the online grocer.

Success
Maxfoodmarket was a unique concept in the Netherlands, but did not survive for a long time. Maxfoodmarket was the smallest online grocer in this research and could probably offer the best customer service. This customer service includes a delivery just after two hours, free delivery, low product prices and a low minimum order size. This total service resulted in a fast growing customer database within two years. The company went from zero to 4,800 orders per week, with a complete new formula and new brand name. Maxfoodmarket was fund with private money, which was not enough to survive. The company tried to raise more money, but did not succeed in this action. Also the made strategic choices were not realistic at that moment. The density of customers could never meet the necessary density to become profitable, because of the 2-hour delivery service. The choice for free delivery and using the same prices as the conventional store may also not be the best choice. Technical problems increased the costs drastically in the first year. The company eventually spends about €14 million in the business.

Do this means that the company was mend to fail, I do not think so. The company tried unique features which proved to be successful, like the same day delivery. The company succeeds to delivery 4,800 order per week in the last period of their existence. They managed to do this in less than two years. The service was very popular and the feedback was very good. At the end the delivery was the bottleneck. They could just deliver four orders in the 2-hour delivery window. They also had to travel a long distance. The combination with low prices and not charging a delivery fee was not realistic, especially not at that time. These factors together were fatal for the company. This case shows that a variable like ‘growth of orders’ does not mean that an online grocer is successful when a company grow very rapid.

4.1.3 Tesco (UK)

Tesco plc is a British-based international grocery and general merchandising retail chain. It is the largest British retailer by both global sales and domestic market share with profits exceeding £3 billion. In 2008, Tesco became the world's fourth largest retailer, the first movement among the top five since 2003[2]. Tesco’s online shopping service was launched in 1999. Tesco is the world market leader of online grocery shopping. Tesco delivers the groceries from the nearest supermarkets in 98% of the UK. With this supermarket model they were the first online grocer in the world that becomes profitable. In total 1,700[3] delivery vans deliver groceries for 494 Tesco stores. Tesco has kept the operations of home delivery simple by using existing assets rather than building high-tech warehouses. Online orders are filled by Tesco employees at the nearest Tesco store, then picked up and delivered by van. Tesco.com also offers a large

[2] http://www.deloitte.com/dtt/press_release/0,1014,cid%253D196099,00.html
[3] http://www.rospa.com/drivertraining/news/tesco.htm

number of additional products, like DVDs, furniture, clothing and even all kinds of insurances. This is sold under the name Tescodirect.com. Tesco.com is also available in South Korea and Ireland.

Success
Tesco is the most successful online grocer. The company is the online grocery market leader in the UK and also worldwide. In the UK the company is able to delivery to 98% of the UK population. The nationwide delivery is a strong success factor, because of the widely recognition of the brand. The company was the first one who became profitable and is still the world market leader. The company can rely on a large distribution and supermarket network.

The service of the club card, which can be used by conventional customers as well as online customers, does stimulate people to try the online service. Also the strong brand 'Tesco' and the large product range helps to attract more people to the online store. The additional products and services do help to show a complete one-stop-shop. The company delivers these additional products by the site Tescodirect.com. The customers know the people who pick the orders, because it is picked in the store nearby the customers' home. This informal approach does increase the degree of trust for the customers.

Another major success is that Tesco.com was able to become profitable after an initial investment of just £59 million. The investment costs are relative low in comparison with grocers like Ocado or Webvan.

4.1.4 Ocado (UK)

Ocado is an Internet based grocery retailer in the United Kingdom that sells both name-brand goods and Waitrose own brand goods. Ocado is for almost 30% owned by the John Lewis Group, which owns Waitrose. Nevertheless, Ocado remains independent. In contrast to the rival home delivery services in the UK, Ocado operates a warehouse based model. It aims to compete on quality of its service rather than price (as with the Waitrose chain itself) and generally matches Waitrose in-store prices. The HQ and warehouse is located in Hatfield (near London) and the regional 'spokes' in Rugby, Manchester, Southampton, Weybridge and Aylesbury.

A group of former Goldman Sachs merchant bankers (Jonathan Faiman, Jason Gissing and Tim Steiner) founded the company. They built the company from scratch: designing, developing and operating every aspect of the business themselves. Over the last 8 years the company has grown from 3 people to over 3.000. Ocado's customer service frequently wins awards. Its unique business model enables it to do this successfully. This business model is similar to the one Webvan did use, but Ocado learned from their mistakes. It is often cited as the only e-grocer in the UK that offers a real alternative to going to the supermarket. There is a small delivery fee (about £2-3, 00).

Success
Ocado is able to pick a large number of orders in its warehouse. This is the only way to make this type of order picking successful. The company is EBITDA profitable, which gives hope for an overall profitable future. The company is the only online grocer in this study that is independent and still active. The company is still growing and is marked is a 'green' company. This is one of their most important statements. They try to convince people to buy at Ocado, because they could save the environment.

The company delivers about 75,000 orders per week and is now operational profitable. It may take some more time to become generally profitable, but after the large investments it almost certainly will happen. The investors will eventually get their money back after an IPO. This IPO was already planned in 2006, but the bad market prospective was enough reason to delay it for a couple of years.

4.1.5 Peapod (US)

In the US there are several online grocers in the different states. The largest online grocer is peapod, owned since 2000 by Dutch retail giant Royal Ahold. Peapod delivers groceries on the East coast in the

states Connecticut, Roads Island, New Jersey, New York, and Massachusetts by the retail formula Stop&Shop. The retail formula Giant is used to in the areas Baltimore, Chicago and Washington DC. In Chicago and Washington DC, Peapod has placed two 75.000 ft dc's were it delivers in these surrounding areas. At 'Peapod by Stop&Shop' groceries are picked at special warerooms located next to a Stop&Shop stores. According their website there are 16 of these locations at November 2006. Customers can choose from 8.000 products in several different product groups. Their trucks do not have a cooling installation, but the frozen products are transported by dry ice.

Peapod does make use of the existing distribution lines of Ahold. Next to several Stop&Shop and Giant stores a special room is provided to pick the online orders. These rooms are called warerooms. These warerooms are almost similar to the normal store, only the products are put closer together and it looks more like a warehouse.

Success
The fact that the company is profitable makes it one of the most successful online grocers in the world. The network and its order pick method are the main reasons for this success. Peapod had already a lot of knowledge in the online grocery branch. By combining this with the grocery knowledge and operational network of Ahold, the company has found the way to success. Each wareroom-location starts with delivering in a short-mile radius. When this is established, the company increases the radius and starts to grow. Each location will become increasingly more profitable by increasing the density of its customer network.

4.1.6 Webvan (US)

Webvan is a unique story in the short history of the existence of online grocery stores. The company stands number one on a number of top-ten failure lists. This is the reason why I pay more attention to the history of this company.

Webvan was an online grocer in the US founded by Louis Borders. The company set out to build a nationwide infrastructure to solve the logistics problem. Webvan put together a sophisticated distribution and information system, optimized from the ground up for e-commerce. After launching its San Francisco Bay Area service in June 1999, the company went public on November 5, 1999 at an offering price of $15 a share. In May 2000, Webvan launched its Atlanta operations and expanded to Chicago in August 2000..

The funding of this company was not that easy. By April 1999, the company had attracted $120 million from high-profile backers such as CBS inc., Knight-Ridder Co., Softbank Co. of Japan, as well as Benchmark capital and sequoia Capital, two leading venture capital firms. By July 1999 Webvan raised an additional $275 million by selling a 6, 48% stake to Goldman Sachs & Co., Softbank Co. and Sequoia Capital. On November 5, 1999, the company managed to raise an additional $400 million in its IPO.4

On September 5, 2000, Webvan acquired HomeGrocer by merger. HomeGrocer began commercial operations in the Seattle area in June 1998, in the Portland, Oregon area in ay 1999, in the Southern California area in September 1999 and in San Diego, California in May 2000. In February 2001, Webvan ceased operations at two acquired facility from HomeGrocer. Additionally, in April, 2001, Webvan ceased operations at two other facilities. The four mentioned facilities were all operating since May 2000.

[4] George Anders, "Co-founder of Borders to launch online megagrocer," The Wall Street Journal, April 22, 1999.

In the first quarter of 2001 Webvan was in the process of converting all remaining HomeGrocer facilities to a common Webvan technology platform. The first of these conversions occurred at the San Diego facility in January 2001. Web van's facilities are comprised of distribution centers of approximately 350,000 square feet as well as customer fulfillment centers (or CFCs) of approximately 100,000-125,000 square feet.

Webvan stated in their first quarter results of 2001 that the risks were very high:

> Webvan's limited operating history makes an evaluation of its business and prospects very difficult. You must consider Webvan's business and prospects in light of the risks and difficulties Webvan encounters as an early stage company in the new and rapidly evolving market of e-commerce. These risks and difficulties include, but are not limited to:
>
> A complex business system that is unproven at or near the order volumes for which it is designed.
> Lack of sufficient customers, orders, net sales or cash flow.
> Difficulties in managing a complex business involving multiple locations and a diverse workforce.
> High capital expenditures and operating costs associated with Webvan's distribution centers, systems and technologies.
> Lack of widespread acceptance of the Internet as a means of purchasing groceries and other consumer products

Source: sec-info Q1 webvan

The mentioned risks were at the end the reason why Webvan had went bankrupt. The business never met the order volumes they had predicted, because there were simply not enough customers who were prepared to buy their groceries online. The founders of Webvan were probably blinded by the Internet hype, which resulted in a thought that the large investments would pay off at the end. This was clearly not the case with a total loss of $1,2 billion.

Success
The most important success factor of Webvan was its capability to pick the orders on a very rapid way with its carrousel model. With this method, Webvan was able to pick a large number of orders and was in a potential success story in 2000. The company was able to collect a large amount of money by informal investors and by going public (IPO).

4.1.7 Leshop (CH)

Leshop is the market leader in Switzerland. The entrepreneurs Alain Nicod, Jesús, Martin Garcia, Rémi Walbaum and Christian Wanner found the company in October 1997. Leshop was the first online grocer in Switzerland and started with 1,500 products. Since the beginning, they teamed up with Swiss Post. They still deliver the grocers with a special Express service. At the end of December 2002 the large investors behind the company, the Bon Appétit Group, planned to close down Leshop.ch. The website went off line. With the help of customers, suppliers, and a still increasing turnover one month later the company was taken over by another investment group, ShoppingNet Holding SA.

In September 2003, the company announced a strategic partnership with the largest grocer in Switzerland Migros. In January 2004, the website went online again, now with 6,000 products. In March 2005, additional products were introduced, like DIY and garden products. The company also started a partnership with Eismann for frozen foods. In the first quarter the first ever profit has been made in the company's history.

Success
In December 2002, Leshop went bankrupt. Nevertheless, the company restarted and is at this moment very successful. Their main success element is their build up network. The partnership with Migros has helped the company back up and makes it still the number one in Switzerland. Besides the network, the external delivery method is also an aspect that increases the company's success.

4.2 Cross-case analysis

During the case studies, it become clear that that all these online grocers do have specific unique features. The companies are all different, even though they all sell the same kind of products. In this cross case analysis the nine building blocks are compared with each other. Eventually, I will select a number of building blocks for further analysis. There are two successful online grocers in this study, Tesco and Peapod.

4.2.1 Building block 1: Value Proposition

All the online grocers are offering the home delivery of groceries. This is the primary service. From these seven online grocers only two, Tesco and Leshop, offer a large number of additional products. These additional products are for example Clothing, perfumery, DVDs and garden tools. Webvan and Maxfoodmarket also offered office products to extend their product line. Only the former Dutch grocer Maxfoodmarket did deliver on the same day. The company was able to deliver just two hours after placing the order. This service may be one of the reasons why the company went bankrupt. It was not possible to create profitable routes. All the other grocers offer a next day delivery service. The density of the online customers is not enough at this time. Webvan did also a pilot with a same day delivery service in Seattle, but this was not a great success.

	Ah.nl	Maxfood market	Tesco	Ocado	Webvan	Peapod	Leshop
Home delivery	X	X	X	X	X	X	X
Number of products	10,000	5,000	22,000	13,000	20,000	8,000	7,000
Additional products		(X)	X		(X)		X
Recipes	X		X	X		X	X
Same day delivery		X			(X)		
Personal page	X	X	X	X	X	X	X
Business area	X					X	
Reasoning	Effort	Effort	Effort	Effort	Effort	Effort	Effort
Value level	Me too	Innovation	Innovative innovation	Me too	Innovative innovation	Me too	Innovative innovation
Price level	High-end	Economy	High-end / market	High end	High-end	High-end / market	Market

From these seven online grocers, two can be called successful. Tesco and Peapod are the only grocers in this research that are profitable. Leshop, Ocado and Ah.nl (almost) are EBITDA profitable, e.g. operational profitable. Tesco is profitable, without taking the additional products is account. Both Tesco and Peapod offer products from local stores and warerooms. They only deliver in the surrounding of these locations. The table shows that both these companies do not offer unique products, besides the special business area at Peapod. Ocado and Tesco are sharing the same products and services. It is clear that these products and services are not a guaranty to become profitable. The number of products is not an important factor when we look at the variables above.

The value level is important to understand the customer's view of the company. Does the company provide more value than its competitors? Well, most online grocers do not offer much more value than its competitors. The main value is of course delivering groceries. I have chosen to take this value proposition not in account, because this is obvious for an online grocer. Three grocers are placed in the 'Me too' classification. Ah.nl, Ocado, and Peapod are not offering a different value than its competitors. Direct competitors are conventional grocers and online grocers in the internal market, e.g. the country were the service is delivered. Webvan gives a slightly more service by offering a 30 minutes time window to their customers. The grocers Tesco and Leshop do offer a larger product range with additional products. This

increases the customer's value level. These three grocers are classified with 'Innovative innovation'. Maxfoodmarket was the most service orientated online grocer. They could deliver the same day, just two hours after ordering. The company offered the products at low prices, the minimum order size was low and the delivery was free. Maxfoodmarket was the only grocer who tried to do this. This is the reason why I classified Maxfoodmarket with 'Innovation'. Being innovative is also a characteristic of a small online grocer. Larger companies have more problem being innovative, because they are not aloud, not able or not willing to try new things. A smaller company is more flexible and can use this to develop unique features.

The attributes price level gives a clear comparison between the prices of the online grocers. Six of the seven online grocers have their main focus on the high-end of the market. The product and delivery prices are higher than conventional stores. Peapod and Tesco are increasingly widening their focus to a more average and market conform price level. Tesco is promoting the online store by claiming that they are the cheapest online grocer in the UK. Also the delivery charges are slightly decreasing at Tesco and Peapod. Maxfoodmarket is the only grocer with clear focus acquisitioning customers by keeping the prices very low. The product prices were lower than an average supermarket and the delivery was free. They are the only online grocer with the value 'economy'.

Summery Value Proposition

The size of the assortment is not important for the degree of success. Tesco and Peapod are both successful, but the size of the assortment diver between 8,000 and 22,000 products. Offering additional products does not mean that a company will be successful. It appears that a same day delivery strategy will not be successful yet. Both companies who tried this service, Maxfoodmarket and Webvan, went bankrupt.

4.2.2 Building block 2: Target Customer

In general, the customers who buy their groceries online are so-called time-starved people. According to Keh and Shieh (2001) most online grocers are typically time-starved, have above average income and dislike grocery shopping. The main target group for every online grocer is the high-end of the market. This group has money to spend and has no problems with the higher prices. Maxfoodmarket promoted the service to a wider group of customers. The company offered the products at low prices, without a delivery fee. Peapod and Tesco are focusing more and more on the working class. The prices are similar to the partner stores and the delivery fees are decreasing, because of the increasing number of customers and density.

Ah.nl and Peapod are the only online grocers that offer a special business area. Other online grocers also deliver to companies, but do not have a special business area. For Ah.nl 35% of its customers are businesses. For Maxfoodmarket just 10% of its turnover is generated by mostly small companies. The size of the turnover of the other grocers is not available.

Summery Target Customer

The target customers of online grocers are for the most businesses families with children and working couples. These people are time-starved and do not want to spent their valuable time for buying groceries. All grocers have chosen to offer to the high end of the market. Tesco, Ocado and Peapod are increasingly approaching more groups, like people with a more average income. The history of Maxfoodmarket teaches us that it is hard to start with this group, because although this group is larger not many people are prepared to pay more for their grocers. Besides private customers, small businesses will also be an important target customer.

4.2.3 Building block 3: Distribution Channel

The distribution method of the online grocers is very divers. The methods are adjusted to the current situation of the companies. Most of the local grocers only advertise in local newspapers and by the website itself. All seven grocers did use some kind of TV appearance to promote their company. Peapod and Webvan used TV commercials in the states they were active in. Ah.nl, Tesco, Ocado and Leshop are using

nationwide TV commercial. Maxfoodmarket was the only grocer that had not a TV commercial, but used media appearances to get free publicity. Tesco and peapod can also use their local stores to advertise and promote the online service. Ah.nl does not use this possibility, because a large number of Albert Heijn supermarkets are owned by franchise holders. Ah is in the season 2008-2009 one of the main sponsors of the Eredivisie (Dutch premier soccer league). The company promotes Albert Heijn as well as Ah.nl by using boarding at the sides of the fields and at the background at the press conferences and interview.

AH.NL	MAXFOOD MARKET	TESCO	OCADO	WEBVAN	PEAPOD	LESHOP
national flyer	free media	direct marketing (stores)	nationwide advertising	local advertising	local marketing	national news papers
website	local news papers	TV commercials	TV commercial	TV campaign	marketing in the stores	TV commercials
AH stores	website	website	website	website	TV commercials	website
Periodic flyers added to the order		National leaflets	free media / publicity		website	
TV commercial						
Online News letter						
Sponsoring						

Summery Distribution Channel

All the online grocers use the website as their main distribution channel. This is the only way to order the groceries. To attract the customers to the website, different approaches are used. All the grocers use some kind of TV appearances and make use of leaflets or newspapers. The type of marketing depends of the size of the organisation and the internal market.

4.2.4 Building block 4: Customer Relationship

The main goals of an online grocer are to acquire and retain the customers. Maxfoodmarket is again slightly different than the other grocers. The company's main goal is mainly to acquire customers. They did this by free delivery and a very sort lead time. The next step of their strategy was to ask a delivery fee for delivering the grocers. The owner estimated that 1/3 of the customers would leave if the company charge €3 for order larger than €80. Tesco and Leshop do offer a lot more products. After acquiring and retaining the customer, they try to let the customer buy more non-daily products. These products are placed on the same website and are just one click away from the groceries. This makes it a small step to buy products, like perfumery, DVD's or even garden tools.

Each online grocer wants to convince that they are the best. They will accomplice that by creating trust for the customer. Personalization is a second feature that is important. Tesco and Ocado are paying more attention to this function. Customers at Tesco and Ocado can add special requirements to their groceries, like green bananas or ripe apples. At Tesco it is also possible that the customers know the employee that picks the orders, because it is picked in the nearest store. This is an advantage by creating trust as well as personalization. Ah.nl and Tesco also have the advantage that the company's name in well known.

Summery Customer Relationship

Acquisitioning and retaining customers is the most important aspect. For all grocers trust is important to convince people to buy at their shop. Personalization and the use of a well known brand name has helped Tesco to create this trust.

	AH.NL	MAXFOOD MARKET	TESCO	OCADO	WEBVAN	PEAPOD	LESHOP
Customer equity	Acquisition / retention	Acquisition / retention	Acquisition / retention / add-on sales	Acquisition / retention	Acquisition / retention	Acquisition / retention	Acquisition / retention / add-on sales
Function	Trust / brand	Trust	Personalization / trust / brand	Personalization / trust	Trust	Trust	Trust

4.2.5 Building block 5: Value Configuration

The operational level of all the seven online grocers is different from each other. Some grocers have a unique order picking method, others have a different method for delivering the groceries. I have divided the 'type of online grocers' into brick-and-mortar, pure play and hybrid. The brick-and-mortar concept is part of a grocery chain and uses the same name. It does not necessarily mean that the orders are picking at a supermarket. Tesco and Ah.nl are brick-and-mortar grocers. A large advantage is that these grocers can use their brand name. By choosing this type, Tesco has become the most successful online grocer. The pure play grocer are independent grocers and less successful than the other types. The costs are higher, because these companies had to start from scratch. The hybrids are part of a larger retailing formula, but are working independent with an own name and brand. This type is just like the brick-and-mortar rather successful.

Value Configuration	AH.NL	MAXFOOD MARKET	TESCO	OCADO	WEBVAN	PEAPOD	LESHOP
type online grocer	Brick-and-mortar	pure play	Brick-and-mortar	pure play	pure play	hybrid	hybrid
type order picking	large DC	local DC	supermarket + local DC	large DC	large DC	warerooms + large DC	large DC
Change in method?	From supermarket to Dc	No change	additional local DC	No change	No change	Additional warerooms	No change
type distribution	hub-and-spoke	from dc	from supermarket	hub-and-spoke	hub-and-spoke	from warerooms	external
lead time delivery	next day	2 hours (same day)	next day	next day	next day; test with same day	next day	next day

The type of order picking gives a clear result; picking at local DCs close at the customer are the most successful order pick method. It is clear that when a company can delivery close at its Dc it will become faster profitable. Tesco delivers in the surrounding of the stores. This makes the distribution costs low and the order picking cheap, because the location is already there. Tesco has also one so-called dot-com-only store in the south of London. The reason to start this location is the low density of Tesco stores in that region. Peapod also delivers in the surrounding area of their warerooms. These warerooms are built next to supermarkets. Peapod is also profitable, because of the low costs of the operations. The company also uses a large DC in the Chicago area. The same day delivery may be a good aspect to attract customers, but the costs are too high to make it possible.

The value configuration is one of the important building blocks. A company has to choose the right type of operations at that specific situation. The method for order picking and for distribution is essential for succeeding in this low margin branch.

Not all the grocers did stay with their first operational choice. Ah.nl first picked the order from stores. In 2001 they changed the name from AH thuisservice to Albert.nl (now Ah.nl) and changed to the DC method. First with 3 Dc's, but after one year they closed one of them because of a disappointing number of orders. ASDA on the other hand started their operations in 1999 with a DC orientated model. In 2002 they changed to

store based order picking, because the costs were simply too high. Also Peapod changed some of their operations by introducing the so called 'warerooms'. They remain using Dc's in Chicago, South East Wisconsin and Milwaukee. In these high density areas are no Giant or Stop&Shop store available or not enough to cover entire area.

The order picking process can be done in an existing supermarket or in a specialized dedicated warehouse or distribution center. This last group can be carried out on different ways: fully automated, half automated with a number of conveyor belt or just manually with a number of trolleys. First, a fully automated warehouse is not an option for many countries or areas. The Netherlands is one of the countries were this type would not be an option. At this moment, Ah.nl is the only online grocer and delivers 20,000 orders per week. This number is, almost sure, not enough to become profitable. Ocado is using an automated warehouse, delivers about 60,000 orders per week and is not consistently profitable. Besides that, when the total number of orders is divided into more than one online grocer, it is even more unlikely a fully automated system will work. The number of order will increase when there are more players entering the market, but I think this will still not be enough to make a decent profit. A DC method with an automated order pick system is a great option for very large and highly populated areas, like London, New York or areas with a number of cities close together. This type may also be useful when a hub-and-spoke model is used. The already picked order will be transported to spoke and transported from there to the customer.

For the Dutch market a supermarket model or a so-called hybrid / wareroom / small DC model will be the best option. It was already clear that a retailing formula would be an important partner.

This makes it possible to pick the order from a supermarket. This type of order picking gives some serious doubts. First, the stock management system can be a problem. It is not possible to display the amount what is left of the product on the website, because normal shopping customers also buy their groceries in that same store. If it appears that a product is not available the customer will get a substitute. It is at least questionable if people want to have a substitute and if this product will be the right substitute. Second, according previous experiences at Ah.nl for the existing stores (AH thuisservice) it has a large impact on the existing personnel in the stores. It will be a big change and this will be hard issue at the beginning of the online formula. This probably will include a decrease of quality, which also was the case at the AH thuisservice. Third, it will be necessary to use the same product prices as they charge in the conventional stores, because the same name of the company mainly is used (like Ah.nl or Tesco.com). A last disadvantage is that the order pickers are shopping at the same time as conventional shoppers, which can be annoying for these customers. Especially when the number of online order is increasing, the number of personnel walking in the store will too.

This is similar to the methods Maxfoodmarket.nl used in the early 2000s. These DCs can be supplied just like a normal grocery store. The order picking process is more manually than an automated system, but can have some technological features like conveyor belts or electric trolleys. With, for example, a conveyor between the racks order picking can go a lot faster than driving a trolley around the whole store. The order picker can take the product out of the racks and put it in a basket on the conveyor. Each order picker can handle a number of meters of the rack. After he is ready the basket goes to the next view meters to the next order picker and so on. The 'wareroom' method peapod is using can also be an option, but it demand a lot of space near the supermarkets. In the US larger supermarkets are placed on the edge of the cities. In the Netherlands they are placed closer to the center where the ground prices are higher and more rare. Replacing shopping space for these warerooms is possible, but not likely to happen. During my interview at Albert Heijn this would only be possible at the AH XL stores. These shopping space is however very efficient and will reduce the store's turnover drastically, which makes also this possibility not realistic.

Distribution: A good method may be outsourcing the distribution to experts. This will reduce the distribution costs drastically and will give a clear and predictable view of these costs. Leshop is the online grocer in this research who does this in cooperation with Swiss Post (express). On the other hand, the quality of the

delivery and the service is than in the hands of somebody else. It will be hard to take control in the degree of service. Another disadvantage is shown by Leshop. Swiss Post does only deliver between 3 and 6 AM. The customer cannot choose for a specific delivery time. This is the result of the agreement the companies have made together. It is questionable if this will work in other countries than Swiss, like England or the Netherlands. This method will only be successful if the company can make good agreements with the external party.

Planning the routes and the delivery window: In this business model description I proposed a same-day-delivery service. This has a large impact on the planning of the delivery routes. In this case the order is available just a short period before the delivery is picked. This makes the planning of the routes more difficult, because you want to drive the most efficient route. In the cases the order is delivered the next day, there is more time to generate a more efficient route. The reason for this is that a specific delivery window can be stimulated, like Peapod is doing (figure 2.9). The delivery window or time slot can be helpful to create more efficient routes. This can be done by stimulating a specific delivery time for a specific area. Another way is by providing a wider delivery window that is cheaper than the other narrower possibilities. At Ocado, the customer can see when a delivery van is already in their neighborhood. at these times the delivery fee will be lower for the customer.

Summery Value Configuration

For order picking, the best solution is to start small. This will keep the investment costs low. The best method is to pick the order from an existing supermarket. A mark has to be made for the future. When the number of orders will increase fast, it may have a large influence on the supermarket itself. It is also advisable to delivery only close to the store. By delivering at too many places too far away, the delivery cost will be too high. This regional distribution has worked for Tesco and Peapod.

4.2.6 Building block 7: Capabilities

The capabilities give a clear view with the abilities of a company. Knowhow of the grocery branch, available distribution lines and access to a large product range are important capabilities a company need to have to become successful. The available distribution line will make the delivery of groceries more flexible. A supply truck does only have to make an extra stop at the new company. Besides the physical distribution, financial support is crucial for any company. The company should be able to catch losses for a longer period of time. A good brand name will help the company to get a 'kick start'. Customers already know the company name, which create more trust.

Capabilities	AH.nl	Maxfoodmarket	Tesco	Ocado	Peapod	Webvan	Leshop
Capability 1	Know-how about groceries	Know-how about groceries	Know-how about groceries	Know-how about managing a large company	Know-how about online groceries	Experience about online stores	Know-how about (online) groceries
Capability 2	Distribution lines available	Distribution lines available	Distribution lines available	Distribution lines available	Distribution lines available	Good network	Distribution lines available
Capability 3	Brand name	Access to large product range	Brand name	Brand name	Access to large product range	Large product range (own purchase)	Brand name
Capability 4	Access to large product range		Access to large product range	Access to large product range	Ability to catch start losses	Ability to catch start losses (for a short period)	Access to large product range
Capability 5	Ability to catch start losses		Ability to catch start losses	Ability to catch start losses	Brand name		Ability to catch start losses

Summery Capabilities

Knowhow about the grocery branch is essential for an online grocer. The five grocers that use the brand name of the company or the partner are still operational. Maxfoodmarket and Webvan did not use the names of the partners and went bankrupt. A well known brand name creates a certain amount of trust in a company. This will give the grocer an advantage against other online grocers.

4.2.7 Building block 6: Partnership

The influence of the strategic partner is very high. This type of partner has a significant part of the stocks or is owner of the online grocer. At pure play grocers this strategic partners have less influence, but are still closely involved in making strategic decisions. The degree of internal competition is striking. Especially, at Ocado and its partner Waitrose. Till 2009[5] Waitrose could not deliver groceries by contract by the Internet in London. Now it is possible for the company to expend their online service to their supermarkets. Waitrose wants to roll out this service to 125 of their stores. This means more competition for Ocado from its own partner. A different type of competition can be found at Ah.nl. A large number of supermarkets are run by independent entrepreneurs with a franchise construction. The online grocer is independent from the conventional store and may take part of the turnover of these stores. Both are using the same prices and the same products. This kind of cannibalism is hard to prevent. Only pure play grocers are not sensitive for this type of competition. The entire generated turnover is new and not just replaced from conventional stores, like at Ah.nl or Tesco.

A related aspect of partnership is a company's network. Two grocers, Tesco and AH, had an already existing network from a national supermarkets. Other grocers, like Ocado, Maxfoodmarket, Peapod and Leshop, make use from an existing network. Peapod and Leshop are later bought by these Supermarkets just before or after the companies went bankrupt. Webvan is the only grocery to purchase their own products directly from the wholesalers. The most important feature of Ah.nl as well as that of Peapod is its network. The companies both are part of the Ahold family and can use of an extended network of existing supermarket chains. A second feature of Peapod is that in most cases the orders are picked from special warerooms. These warerooms are special, because of the combination of the advantages in comparison with larger DCs and store-picking methods.

The degree of integration is very high for brick-and-mortar grocers. They scored a maximum score. the degree of integration of grocers that are taken over is also very high. These companies, Peapod and Leshop, are highly dependent of their operational and financial suppliers. Ocado is an independent grocer, but is still dependent of their supplier, Waitrose. Webvan is the only online grocer who has not a partner that is strong integrated.

	AH	Maxfoodmarket		Tesco	Ocado		Webvan		Peapod	Leshop			
	Albert Heijn	Jumbo Supermarkten	informal investors	Tesco PLC	Waitrose	informal investors	individual suppliers	informal investors	Ahold	Migros	Supplier: Iceman	Supplier: Le poste	informal investors
strategic importance	5	2	3	5	4	1	1	3	5	4	1	4	1
degree of competition	2	1	nvt	1	4	nvt	0	nvt	3	2	0	0	nvt
degree of integration	5	4	nvt	5	3	nvt	2	nvt	4	4	2	4	nvt
substitutability	0	2	nvt	0	2	nvt	4	nvt	1	1	5	2	nvt

[5] http://www.talkingretail.com/news/industry-news/12178-waitrose-set-for-online-expansion-after-ocado-deal.html

Summery Partnership

It appears that the successful grocers have a strategic partner. Companies like Webvan and Maxfoodmarket, tried to be independent but had little success. Especially the knowledge and operational advantages of these partners will help online grocers to become successful.

4.2.8 Building block 8: Revenue Model

It is hard to compare the financial aspects of the different online grocers. The sizes of the companies, the currency and the amount of available information are quite different from each other. What is clear is that Tesco and Peapod are the only profitable online grocers. Both the delivery fees are rather high. This indicates that people are prepared to pay a certain amount of money for this additional service. Nevertheless, a low delivery fee may attract more customers. Maxfoodmarket was very successful to attract a large number of customers in a short period of time. The company established to produce 4,800 orders per week after just 1, 5 years with a complete new business and business name. Ah.nl was in that period already the largest online grocer in the Netherlands. The company delivered approximately 7,000 to 8,000 per week, but in a larger area and the fact that the company already existed for 5 years. It's clear that a free delivery will attract more customers, but it is not realistic to become profitable.

Summery Revenue Model

All the online grocers use a similar type of revenue model. They all generate revenue by selling products. A second type of generating revenue is by charging a delivery fee for the delivery of the orders. Maxfoodmarket was the only online grocer who did not structurally charge delivery fees. The company had to cease business, because the gross margin was not high enough.

Revenue model	AH.NL	MAXFOOD MARKET	TESCO	OCADO	WEBVAN	PEAPOD	LESHOP
Streaming type	Selling Transaction cut	Selling	Selling Transaction cut	Selling Transaction cut	Selling Transaction cut	Selling Transaction cut	Selling Transaction cut
profit / loss	loss	loss	profit (£124 million)	loss*	loss	profit	loss*
Turnover	€107 million (2007)	€20 million (€375.000 a week)	€1,1 billion (2008)	£350 million (2007)	$180 million (2000)	???	92,3 mill ch fr
delivery fees	€4,95 – 9,95	Free	£4,00 / £6,00	£3,00 >£75,00 free	$5,00 >$75 Free	$6,95 / $9,95	7,.90, 10.90, 13.90 or 15.90 francs
average order size	€130	€80	£110	£105	$112	$145	217 fr
Number of orders per period	18,000 per week (2008)	4,800 per week (late 2002)	450,000 per week (2008)	+75,000 per week (2008)	27,000 per week (2000)	??	1,800 per day

4.2.9 Building block 9: Cost Structure

It is not possible for me to calculate the exact costs of these online grocers. Most companies do not publish these figures. I can distinguish companies with high investment costs and high operational costs. Webvan and Ocado are the two companies with the large startup investment costs. Webvan spend $35 million to build highly sophisticated warehouses. The company built four of the warehouses. Ocado spend about £35 million at their dedicated warehouse. Both companies had to start from scratch, because they were completely new. Ocado had the advantage with the partnership with Waitrose. In the beginning the operational costs were also high, because of the low volume of orders. At a certain break-even-point the amount of order is so high it becomes cheaper to pick the orders at a warehouse. Other companies, like Ah.nl, Maxfoodmarket, Leshop and Peapod also had to invest in there warehouses. Ah.nl and Maxfoodmarket build or hired warehouses that are semi-automated. The order picking happened manual. Peapod had to invest in changing existing stores. The so-called warerooms are also semi-automated. The start-up costs were much lower than the dedicated warehouses of Webvan and Ocado. Tesco had the

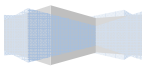
lowest investment costs. About the operational cost not much can be found, but it is clear that the costs per order are higher for the companies with the manual way of order picking. The company 'only' spend £59 million before they were profitable. The company could use the existing stores. This is including all startup investments and startup losses. This building block is a key element for online grocers. It all depends on the chosen strategy and method for distribution. This choice will have a drastic influence on the costs of the grocer. Some online grocers start as a service of an existing grocery store, like for example Albert Heijn, ASDA and Tesco did. The results show that Tesco invested just 59 million pound before they become profitable. After 8 years, Ocado is still not profitable, but has spent more than £350 million in the company. Even with 60,000 orders per week they are not able to become profitable, which makes questionable if this method will be the right one at the end.

Summery Cost Structure

There are roughly two types of cost structures. There are companies who invest a large amount of money at the startup. Other companies will start smaller and will gradually invest in the company after generating a certain amount of revenue. Even when a company invest dozens of millions, it does not automatically means that the company can be operational profitable. It will take longer and the risk is higher before the company will get profitable.

4.3 Conclusions

In this Chapter, the seven online grocers are compared with each other by the nine building blocks. It has become clear that the building blocks Value Configuration, Partnership and Cost Structure are the most important blocks. In the next Chapter the best combination of building blocks is put together in one best business model.



5 Conclusions

The case studies show that it is hard to start up a successful online grocery store. With success I mean being 'really' profitable and not just EBITDA (earnings before interest, taxes, depreciation and amortization) profitable. Just two of the seven grocers are profitable, Tesco and Peapod. Ocado and Leshop have pronounced that they are operational (EBITDA) profitable. Leshop may be close to become profitable. The remaining three grocers are not yet profitable or they have never shown their sales and profit figures in public. Other, not studied online grocers like ASDA and Sainsbury, have never shown financial figures, because they are integrated with the turnover of the conventional stores. The online grocers that are not selected for this study (several dozen worldwide) are not profitable.

In this research I am looking for the best business model for an online grocer. In this Chapter, I give a description of the best possible business model for an online grocer. This question can only partly be answered. It is practically impossible to describe only one business model that is the best. The internal market and geographical characteristics are essential for what would be the best business model of a country.

5.1 Proposed business model

But what is the best business model? The next described business model is based on a market with dense populated areas and based on an online grocer that is interdependent of an existing supermarket. This means that any supplier should be possible and the company can use its own strategy without much interference of the partners. A change of supplier should not be a large problem. The proposed business model is shown in figure 6.1.

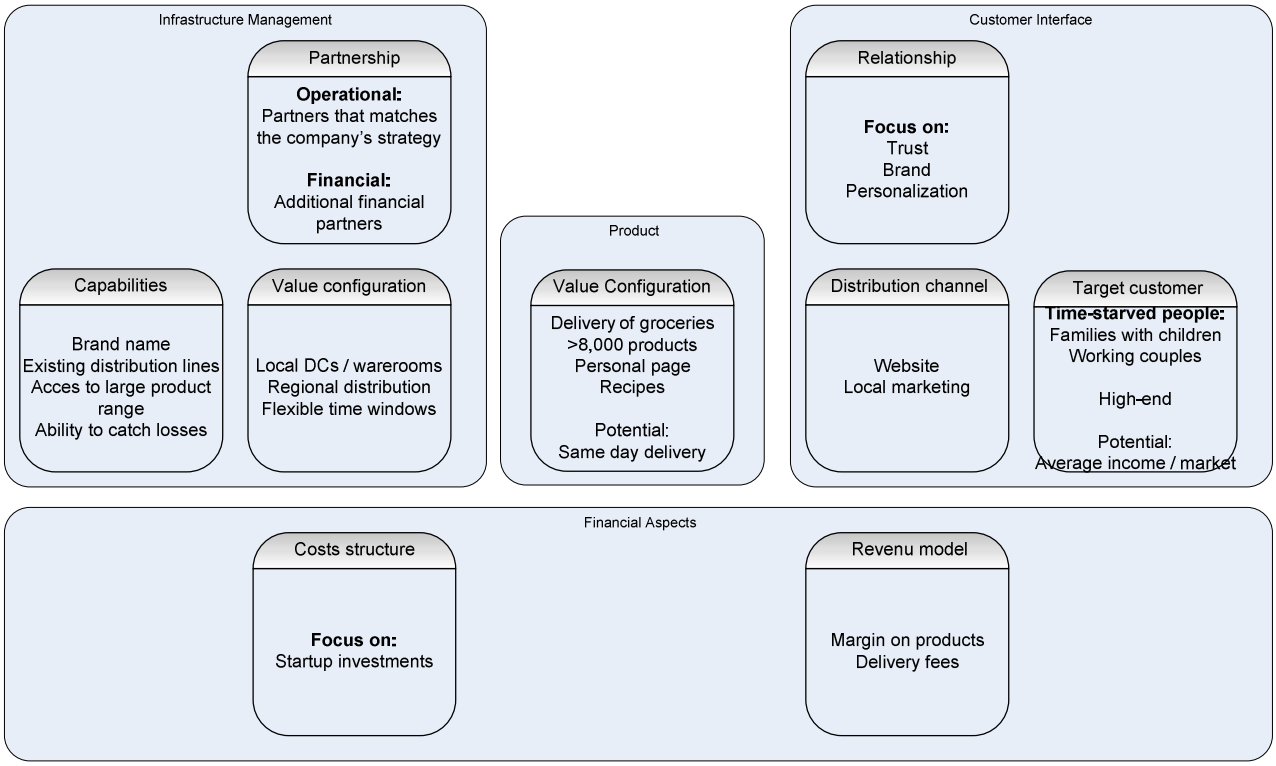


Figure 6.1: the best business model

Product

The main product of an online grocery store is delivering groceries. These groceries include dairy products, drinks, all kind of food, cleaning products and a lot more. Many online grocers in the world also deliver

additional products like furniture, flowers or even insurances. It may be a solution to become a complete 'one-stop-shop', but I do not think this is necessary to become a profitable company.

The size of the assortment is not significantly important for the degree of success of the grocer. The grocers in this research had at least 5,000 products. The grocer with 5,000 products was Maxfoodmarket, but went bankrupt. Peapod does have 8,000 products and is very successful. It seems that this amount of products is enough to become successful. It is not necessary to offer additional products, like Tesco does.

Another product, or better said a service element of grocery delivery, is the same day delivery. Maxfoodmarket is the only grocer who has done this in the entire business. Webvan did a short pilot in Seattle, but went bankrupt soon after that. This same day delivery service was part of the success of Maxfoodmarket, because it increased the number of orders to 4,800 per week.

Target Customers

The target customers are not significantly different than other online grocers. It is possible for every person with an Internet connection to order groceries online. The main groups of people who will use this service are time starved people, like families with children and working couples. Also small companies may be a good target group, but this needs some adaptations to the website and the assortment. A special business area can help to promote buying by businesses as well as larger packaging for some types of products.

When people are buying their groceries online, they know it will be more expensive than conventional shopping. The high-end of the market will be the most suitable group of customers. The people who will buy the groceries are the families (with or without children) and working couples. These both groups can also be classified as time starved people. When a company starts to grow and the density of people increases, more groups of customers can be reached. This can be done by decreasing the thresholds, like the delivery fees, minimum order sizes and of course the product prices. This will lead to an increase of customers with an average salary, because the prices will be more like the conventional stores.

Distribution Channels

The main distribution channel is the website. The customer can order, find information, contact the company by and find offers on the website. The marketing strategy to attract the customer to come to the website will be mainly done with local marketing in weekly newspapers or by door-to-door leaflets. An important notification is that local and nationwide online grocers will have a different way of communicating with the customers. Large, national companies have a larger budget to promote their business. This will give them the advantage to use TV commercials and national newspapers. This type of marketing is only useful for a company that offers their services nationwide. Most online grocers only offer their services in a part of a country.

Customer Relationship

It is important to keep customers and prevent them for walking away to the conventional stores. By providing a personal page for every customer a 'personal feeling' can be created. At this personal page earlier ordered products are shown, which makes shopping online easier and faster. This is one way to create extra service and possible customer's loyalty. It may be a helpful to stimulate shopping online by discount or by vouchers, like they do in the UK. Another option is promoting the number of orders by offering for example a free delivery or a discount after every five placed orders.

Value Configuration

The entire operational process is the bottleneck of every online grocer. A good order pick process, logistics, stock management and planning of the routes can make a company more efficient than others. There are some clear differences between click-and-mortar and pure-play online grocers. The start investments are much higher for pure play supermarkets. This is a logic result, because these pure play grocers start with nothing. There are in most cases no distribution lines available and no location were to order need to be

picked. The mentioned hybrid grocers do have these distribution lines thanks to the cooperation with existing grocers. Grocers like Webvan and Ocado have made very large investments in the first years. Webvan has a total loss of $1, 2 billion what resulted in a bankruptcy after just two years. Ocado started its business in 2002 and made a total loss of more than 250 million pound until now. A positive point is that they already have made a positive EBITDA result in the third quarter of 2006. However, even with this operational profit, they still made a total loss of 43 million pound in that same year. For the value configuration for online grocers, I distinguish order picking, distribution and the time windows.

For the type of order picking is one thing very clear: start small. At the startup it is important to build up a steady group of customers in the surrounding of the order pick or distribution centers. The reason for this is to keep the costs in proportion to the generated revenue. The best method is to use an independent location for picking the orders. This location should be placed as close as possible to the potential customers. This can be at industrial areas near large cities. Peapod and Maxfoodmarket are users of this type of centers. The Tesco-way of picking the may be ever more effective, but can only be used by the supplier itself.

The distribution method can be a hub-and-spoke model or direct delivery from de DC's. A hub-and-spoke model is useful when a large number of orders can be picked in a warehouse. In that case it is possible to deliver a number of orders by a large truck to a spoke were it will be divided into smaller trucks. Webvan, Ocado and Ah.nl do use this method. In the business model I am proposing the size of the DC is small, which makes it not useful or even possible to do it. In a smaller DC a maximum number of 300-400 orders can be picked per day. This corresponds with 10 to 12 delivery vans per location. The turnover will be similar to an average conventional supermarket, which is in the Netherlands €140,000 per week.

Capabilities

The company should be capable to deliver the orders to the customers and must be able to carry out its strategy. The company should have access to a distribution network for the supply of the groceries. The company should also be able to catch significant losses. At the startup of an online grocer, the investments are very high. Making use of a brand name appears to be very useful to generate trust for potential customers. These customers will buy sooner at a company with a familiar name than a complete unknown company.

Partnership

Finding the right partners is essential for succeeding as an online grocer. The best possible way of selecting a partner is to find one that matches the company's strategy. This may be hard, because the online grocery market is worldwide still very small. It will be more realistic to find a partner that wants to participate in a newborn online grocery store, no matter the strategy of the strategy of the retailer. This is a less desired situation, but a more realistic one. The type of supplier can have a large influence on the operations of the newborn company. The product prices, time of supplying the groceries, size of the product range and the supplier's requirements may affect the operations and the strategy.

An existing retail partner has a number of advantages. The economies of scale and purchase advantages are important to charge acceptable prices for the customers. A second important issue is the available knowledge of the grocery branch. A retail formula has already a lot of experience in this market and knows how to enter the market on the most efficient way. A possible third advantage is that the retailer may invest in the online formula. This also can mean that it will not be a complete independent formula, but the degree of success can be higher.

If a retail formula is not interested in these large investments (in)formal investors is the only possibility. A bank loan will be hard to get when there is just an idea on paper. The investors are prepared to take more risks with their money than banks are allowed to do. A critical issue is that a lot of investors do not like to invest in the retailing sector. The margins are much lower than for example the technology sector. The

investors who like to invest in the retailing sector are mainly familiar with the sector, because of their previous businesses. This also means that a lot of knowledge is available. This can be knowledge in marketing, purchases or simply making use of the buildup network.

Revenue Model

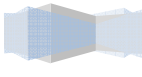
All grocers are gathering their revenue by selling products and services and by charging delivery fees. Tesco.com also offers additional products, like telephone subscriptions and insurances, but I did not used this in this research. I focused on the grocery delivery.

Maxfoodmarket has proven that it is hard, or even impossible, to survive in this branch by not charging any delivery fees. The operational costs are higher than conventional stores, which makes it necessary to increase the gross margin of the company. This can be done by raising the products prices or by introducing a delivery fee. This delivery fee can be adapted by the delivery window, time of delivery or degree of service. If a customer does not need the grocers at a specific time, the company can choose itself. This may decrease the costs, which can be in favor for the customer.

Cost Structure

The costs can be divided into investment costs and operational costs. It depends on the type of order picking, distribution and type of partners the company has. When a company can operate from existing supermarkets, the initial investment costs will be drastically lower than when a new DC has to be built. When a company starts with a DC model, choices have to be made about the size and number of locations, the distribution method and the degree of automation.

The operational costs are the costs to pick and distribute the orders. If a company chooses to use a hub-and-spoke model, the transportation costs will be high. When a company uses a supermarket model to pick the orders, the operational costs are high. These operational costs are higher than conventional stores.



6 Discussion and limitations

It is clear that not all the online grocers in this research can be compared with each other. The click-and-mortar grocers already have access to existing distribution lines and buildings. This is the case for the store picking grocers and the hybrid grocers like Peapod.

The Internet hype in the beginning of this century had a major effect on the number of online grocers. Dozens of grocers started a business, because they believed that the Internet would rapidly take over an important part of the grocery market. Many of these grocers went bankrupt in a short period of time. The online grocers that are still active are taken over by large retail giants or do have gathered a large amount of capital to survive. Most of these grocers have overestimated the number of customers and underestimated the amount of costs. The costs for an online grocer are higher than for conventional grocers. Especially the logistics are more expensive, because the customer usually takes the costs for his account. We also see this at the price level (only product prices) for all the supermarkets. The two upper items the price level scale are used: market and high-end.

Startups should pay more than average attention to the three most important building blocks. These are the Value Configuration, Partnership and Cost Structure. To start a successful online grocer a business plan should be build around these building blocks. A more extensive research is necessary what these potential partners are thinking about the online grocery branch. It is not clear why large supermarket retailers in the UK are spending a large amount of money in this business, in contrast to the rest of the world. A very important result is that the context of a company is more important than the use of a business model. Some pure play grocers have failed in the past because of too much opportunism. The Internet hype made people think that many unrealistic goals were easily possible. Webvan is the king on this terrain with a quarter loss of $216 million (1e Q 2001) and a total loss of $1,2 billion. Ocado, Leshop and Maxfoodmarket market had a bigger change to survive, but in all cases money is a key component. Ocado is linked to some giant investors, which already have invested more than £250 million in the company. Leshop already went bankrupt, but was bought by Migros. The company is now operational profitable. Maxfoodmarket market is the only grocer of the three who did not make it. The company had no large investors who wanted to invest enough money. They have spend €14 million in almost two years, but were not prepared to spend more, although the CEO of Maxfoodmarket market was convinced that the company would see black figures within six month.

A disadvantage in comparison with conventional stores is that most online grocers offer a next day delivery. If a customer goes to a conventional supermarket, he immediately takes the groceries with him. The majority of the orders are placed weekly or even every two weeks. This makes it hard to position an online grocer as a ‘normal’ supermarket. This is one of the limitations of this research. This research did not pay attention to the human aspect of online grocery shopping. This may be a good subject for follow-up studies.

The discussed research has also another limitations. The variables used are just one of many methods to describe business models. A different method can give slightly different results. A complementary limitation is the use of available information. The available information was limited for some cases. Larger online grocers are more open to give information about the operations and the financial situation. It is clear that the market is very important for the type of online grocer. The Dutch market is different than the British or the American grocery market. This makes it hard to compare the online grocers. The proposed business model will not be directly suitable for starting up a new online grocer. The result of this research may help startups to look at companies at the past and what they did right or wrong. The given information will be a good input for a business plan or for a first orientation of the online grocery branch. It is hard to define when a grocer is successful. In economical terms the company has to earn money, but a quick increase in the number of orders does also earn a lot respect. A last limitation is the available information. I was not able to collect all the similar data from all online grocers. My main source was the Internet. Not all the companies are willing to publish their data on this media.

Literature

Amit, R. and C. Zott (2001). "Value creation in e-business." Strategic Management Journal **22**(6-7): 493-520.

Boyer, K.K., (2002), 'Ocado: An Alternative Way to Bridge the Last Mile in Grocery Home Delivery?' case #602-057-1 by the *European Case Clearing House*. Case study, Michigan State University.

Boyer., K., Hult, G., Frohlich, M. (2003), an exploratory analysis of extended grocery supply chain operations and home delivery, Integrated Manufacturing Systems (Emerald), 14 August 2003, pp. 652–663.

Blattberg, R., G. Getz, et al. (2001). Customer Equity. Boston, Harvard Business School Press

Chandler, Alfred, Strategy and Structure (1962), Cambridge: MIT Press

Delaney-klinger, K., Boyer, K.K., Frohlich, M. (2003), "The return of online grocery shopping: a comparative analysis of Webvan and Tesco's operational methods", the TQM magazine, vol. 15, no. 3, pp. 187–196.

Early Learning from the Consumer Direct Cooperative, Anderson Consulting, January 2008.

EMCC case studies: Tesco PLC (2007); European Foundation for the improvement of living and working conditions.

Geuens G., Brengman M., S'Jegers R. (2003), "Food retailing, now and in the future. A consumer perspective", journal of Retailing and Consumer services, vol. 10, pp 241-251.

Gordijn, J. and Akkermans, H., (2003) "Does e-Business Modeling Really Help?", Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03).

Irene Yousept, I., Feng Li (2004) "Online Supermarkets: Emerging Strategies And Business Models In The UK". 17th Bled eCommerce Conference eGlobal Slovenia, June 21 - 23, 2004.

Key, H.T. and E. Shieh, E., (2001) "Online Grocery Retailing: Success Factors and Potential Pitfalls," *BusinessHorizons,* volume 44, number 4, pp. 73-83.

Kaplan R S and Norton D P (1992) "The balanced scorecard: measures that drive performance", *Harvard Business Review* Jan – Feb pp. 71-80.

Koster R.B.M. (2002), Distribution structures for food home shopping, International Journal of Physical Distribution & Logistics. Vol. 32, pp. 362-380

Lunce, E.L., Lunce, L.M., Maniam, B. (2006), Success and failure of pure-play organizations: Webvan versus Peapod, a comparative analysis, Industrial Management & Data Systems, vol. 106, pp. 1344-1358.

Mcafee, A. and Ashiya, M., Webvan, Harvard Business School, 2001
Morris M., Schindehutte, M., Jeffrey Allen, J. (2003)," The entrepreneur's business model: toward a unified perspective", Journal of Business Research 58 (2005) 726– 735.

Morganosky, M. A. and Cude B. J., (2000), "Consumer response to online grocery shopping", International Journal of Retail & Distribution Management, Vol. 28 no.1 pp. 17-26.

Osterwalder, A. and Y. Pigneur (2004). "An ontology for e-business models." In Value Creation from E-Business Models. W. Currie, Butterworth-Heinemann

Stähler, P. (2002). Business Models as an Unit of Analysis for Strategizing. International Workshop on Business Models, Lausanne, Switzerland.

Scott H.S. and Scott J.E. (2008), "Online grocery order fulfilment Tradeoffs", proceedings of the 41st Hawaii International Conference on System Sciences.

Seddon, P. B. and G. P. Lewis (2003). Strategy and Business Models: What's the Difference. 7th Pacific Asia Conference on Information Systems, Adelaide, Australia.

Thompson, J., (2008) 'Asda to raise online game with non-food', retail week magazine.

http://www.comscore.com/press/release.asp?press=986 (online market UK 2006)

www.thuiswinkel.org

www.CBS.nl

Interviews:

Interview with Mr. van Neeve (manager ecommerce, MT member of Ah.nl)
Interview with Mr. Groot (founder Maxfoodmarket)

AH
http://webwinkel.ah.nl/
http://www.marketingfacts.nl/berichten/20061205_albertnl_groeit_dit_jaar_25_procent/
http://www.marketingfacts.nl/berichten/20060621_investeringen_albertnl_over_25_jaar_terugverdiend/
http://www.elsevierretail.nl/1050334/Dossiers/Winkelreportages/ReportageAlbert.nl.htm
http://www.emerce.nl/nieuws.jsp?id=44653
http://www.distrifood.nl/formules/id101-60103/ah_schrapt_albertnl_als_internetformule.html

Maxfood
http://www.marketingfacts.nl/berichten/maxfoodmarketnl_stopt_ermee/
http://www.marketingfacts.nl/berichten/failliete_maxfoodsuper_deed_het_net_niet_goed_genoeg/
http://www.communicatiecoach.com/vakgebied_strategie_art_buzzmarketing.htm

Webvan
http://www.secinfo.com/dut49.4F93h.htm
http://www2.isye.gatech.edu/~jjb/wh/sites/Webvan/Webvan.html
http://news.cnet.com/Online-grocer-Webvan-taps-into-consumer-electronics/2100-1017_3-241428.html
http://www.internetretailer.com/internet/marketing-conference/82256-webvan-tests-same-day-delivery-seattle.html

Tesco
www.tesco.com
www.tescodirect.com
http://techtaxi.blogspot.com/2006/04/tescos-online-sales-approach-1bn.html
http://business.timesonline.co.uk/tol/business/industry_sectors/retailing/article2846709.ece

Ocado
www.ocado.com

http://business.timesonline.co.uk/tol/business/industry_sectors/retailing/article3516948.ece
http://business.timesonline.co.uk/tol/business/industry_sectors/retailing/article2935761.ece
http://corporate.ocado.com/media/media_pack.pdf
http://www.guardian.co.uk/business/2008/jul/21/supermarkets.retail

Leshop
www.leshop.ch
http://www.swisster.ch/en/news/business/amazon-sounds-out-booming-swiss-online-grocery-retailer_116-611874

7 Appendices

7.1 Appendix 1: building block explanation

Building block Value Proposition
Reasoning
The attribute reasoning captures the reasoning on why the firm thinks its value proposition could be valuable to the customer. The value is created through use, by reducing customer's risk or by reducing the customer's effort.

Variable	Description
Use	The main value creation will happen when the bundle of products and services will be used and correspond to the customer's needs. The value is produced when the assumed customer value matched the perceived customer value after the consumption of a value proposition.
Risk	The value can be created by reducing the risk of a customer in certain situations. Some examples are insurance contracts, buy-back guarantees, and some financial option. Another type is risk is that a product will not perform as predicted or expected. By undermining these risks value will be created for the customer.
Effort	By reducing the effort for a customer his life will become easier. Value will be created through lower search, evaluation, and acquisition costs, but also by easier and cheaper maintenance, operations and training.

Customers who decided to buy their groceries by the Internet do it because it is easier and costs less time. The value for the customer will be creating by reducing the effort for the customer.

Value level
This attribute will measuring the utility for the customer. By measuring the value level of a company's offer it allows the firm to compare itself to its competitors. The utility variables are me-too, innovative innovation, excellence and innovation.

Variable	Description
Me-too	This means that the value of the bundle of products and services the firm offers does not differentiate itself from the one competitors offer. Differentiation may take place by lower prices.
Innovative innovation	This means that a company imitates an existing value proposition, but improves value by adding innovative elements.
Excellence	Excellence means that value is pushed to its extremes. The value proposition is still an existing product or service, but with a unique feature or extra service.
Innovation	Innovation means that a firm introduces either a completely new product or service or a revolutionary combination of products and services.

For an online grocer there are several topics be more innovative than its competitors. Such as the website, the logistics, order pick system and so on. The business ontology has used this attribute only for the customer's point of view, but it can also be divided into more variables for the business.

Price level

This attribute compares the price level of the value proposition with the one's of their competitors. The price level is subdivided into a four-point scale: Free, economy, market and high-end.

Variables	Description
Free	A company can offer a value proposition without asking for financial compensation. Other companies offer free value and derive revenue from these activities, such as selling freely collected customer information to marketers. Another completely different example of free value in the software industry has mainly become possible because of the Internet. The so-called open-source software is freely available for download over the Web.
Economy	This is the low-end of the price scale. Some examples in the supermarket channel are Lidl and Aldi. Often, but not necessarily this goes hand in hand with a lower value level. The streamlining of the processes is an important to aspect to make the lower prices possible.
Market	This aspect means that the price level is similar as the average in the market. Adapting a market price can still be very attractive if special features or attributes are added to the value proposition.
High-end	The high-end represent the upper boundary of the price scale. These high-end prices are usually found in luxury goods or for new and innovative value propositions.

Life cycle

A value proposition should be studied over its entire life cycle (Anderson and Narus 1998). This attribute is introduced to understand in which of the five stages the value created. The five stages are value creation, value purchase, value use, value renewal and value transfer.

Variable	Description
Value creation	Traditionally the value creation was done by R&D and marketing department, based on historical customer data and then thrown on the market. But through the help of ICT the customer can become an important part of the value creation process. Companies can let the customer personalize or configure their products.
Value purchase	The value can be created by improving and facilitating the customer's buying experience. The first step is to streamline the transaction process itself. The next step is to improve the fulfilment. This can be done by adding extra attributes, like a track-and-trace service that is offered by several postal / package delivery companies.
Value use	The most traditional and best known phase in the value life cycle is the value use. The value is created by the use of the product or service. Many companies define a core bundle of value, a basket of basic products and services, which can be extended with complementary attributes at additional costs.
Value renewal	Some products or services can generate value by renew it after or during its consumption. This can be necessary when value is used up (e.g. empty phone cards), expires (e.g. expiring a magazine subscription), becomes obsolete (e.g. outdate machinery) or is dysfunctional (e.g. need for car service). For software companies it is very common to add value by updating their products by new patches, general updates or major upgrades. Another possibility is additional new features for a product or service.
Value transfer	Here has the customer the possibility to transfers the value he has acquired. A reason can be that the value proposition has lost the value for him, but he still can gain something by transferring the value. Some examples are selling second hand products or a company which takes the disposal costs for his account (e.g. refrigerators or computers).

Building block Target Customer

The building block Target customer does not have specific attributes

Building block Distribution Channel

Customer buying cycle

This attribute has the goal to identify which one of the functions of the customer buying cycle a channel link fulfils. From the customer realizing his needs, through the collection of product and price information, the sales transaction all the way to the use of the product or service, the Customer Buying Cycle reflects all possible contact points between a supplier and a customer in the context of the acquisition, possession and disposal of the product or service.

Variable	Description
Awareness	The customer can here identify if the company's value proposition matches his needs. The company tries to reach as many potential customers as possible by means of advertising, promotions, public relations and partnerships.
Evaluation	After a customer has identified potential solution providers he now needs to know more about the company. The company's job is now to give the customer all the information he needs to assist him in the evaluation process.
Purchase	During this phase the actual transaction takes place. This includes negotiation, decision, contract, order & tracking, billing & payment and fulfilment.
After sales	This last phase is probably the most promising one, because it has the potential to create loyal customers. It can embrace implementation and use, training, maintenance, monitoring, troubleshooting and reverse logistics (i.e. disposal).

Building block Customer Relationship

Customer equity

The relationships can be classified according to their customer equity goals, which are acquisition, retention or add-on selling (Blattberg et al. 2001).

Variable	Description
Acquisition	It's very straightforward to say that companies must acquire customers to do business. Even firms with high retention rates lose customers and thus must continuously acquire new customers to stay in business.
Retention	The goal of customer retention is to leverage customer acquisition investments. The mechanisms that assigned to retain customers are loyalty programs, customer defection programs or installing switching cost.
Add-on selling	Add-on selling is the activity associated with selling any additional products and services to current customers.

Function
This attribute describes which functions the relationship MECHANISM fulfils. It can either personalize a relationship, contribute to customer trust, or contribute to brand building.

Variable	Description
Personalization	An important field of personalized mechanisms is one-to-one marketing. This is nothing else than tailoring marketing activities to specific customers, their needs, behaviour and their particular transaction history. A more familiar known way is the local store function. A local grocery store knows the habits and needs of their customers.
Trust	In business a certain level of trust between economic agents is indispensable so that business can take place. Some instruments to establish trust are mediation services in case of disputes or insurance guaranties to prevent financial loss.
Brand	Brands constitute a pivotal resource for generating and sustaining competitive advantage. They are an important part of relationship building and help creating a distinction among entities that may satisfy a costumer's need. A brand is influenced by every interaction with a customer or with a firm's environment. This includes transactions, marketing, public relations and generally its behaviour in society.

Building block Capabilities

Resources type
The groups of resources a firm or its partners dispose can be classified of among three rough categories, namely, tangibles, intangibles and people-based skills (human).

Variable	Description
Tangible	This category concerns the most conventional resources, such as plants and equipments. These resources traditionally appear in a company's balance sheet.
Intangible	These items cannot be picked up or touched. It is undeniable that these resources like patents, brands and similar resources are of immense value to the contemporary firm.
Human	Depending on the type of firm people-based skills are of crucial value. Examples include consultancies, hospitals, universities and firms that rely on innovation.

Building block Value Configuration

Value chain
The value chain contains the different activities a firm performs to deliver low-cost or differentiated products. The main activities of the value chain framework (Porter 2001) include inbound logistics, operations, outbound logistics, marketing and sales, and service.

Variable	Description
Inbound logistics	Activities associated with receiving, storing, and disseminating inputs to the product.
Operations	Activities associated with transforming inputs into the final product form.
Outbound logistics	Activities associated with collecting, storing, and physically distributing the product to buyers.
Marketing and sales	Activities associated with providing a means by which buyers can purchase the product and inducing them to do so.
Service	Activities associated with providing service to enhance or maintain the value of the product.

Value shop

In this value configuration, a firm concentrates on discovering what the client wants, figures out a way to deliver value, determines whether the customer's needs were fulfilled and repeats the process in an iterative way if necessary.

Variable	Description
Problem-finding and acquisition	Activities associated with the recording, reviewing, and formulating of the problem to be solved and choosing the overall approach to solving the problem.
Problem-solving	Activities associated with generating and evaluating alternative solutions.
Choice	Activities associated with choosing among alternative problem solutions.
Execution	Activities associated with communicating, organizing, and implementing the chosen solution.
Control and evaluation	Activities associated with measuring and evaluating to what extent implementation has solved the initial problem statement.

Value network

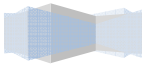
The value network value is created by linking clients or customers who are or wish to be interdependent. The firm itself is not the network, but it provides a networking service.

Variable	Description
Network promotion and contract management	Network promotion and contract management consists of activities associated with inviting potential customers to join the network, selection of customers that are allowed to join and the initialization, management, and termination of contracts governing service provisioning and charging.
Service provisioning	Service provisioning consists of activities associated with establishing, maintaining, and terminating links between customers and billing for value received. The links can be synchronous as in telephone service, or asynchronous as in electronic mail service or banking. Billing requires measuring customers' use of network capacity both in volume and time.
Network infrastructure operation	Network infrastructure operation consists of activities associated with maintaining and running a physical and information infrastructure. The activities keep the network in an alert status, ready to service customer requests.

Activity level

There are two types of activities the ontology distinguishes, which are the primary activities and the supporting activities.

Variable	Description
Primary activity	Primary activities are those that are involved in the creation of the value proposition and its marketing and delivery.
Support activity	Support activities are the underlying fundament that allows the primary activities to take place. This includes activities such as firm infrastructure, human resource management, technology development and procurement (Porter 1985).



Building block Partnership

Reasoning

Companies engage in partnerships for specific reasons. The attribute reasoning describes the firm's motivation for the agreement. The attribute is divided into three options, which are optimization and economies of scale, reduction of risk and uncertainty and acquisition of resources.

Variable	Description
Optimization and economies of scale	The goal behind many agreements is the optimization of a company's operations. This can be done by for example, outsourcing or by shared infrastructure.
Reduction of risk and uncertainty	In a competitive environment that is characterized by uncertainty and high risk partnerships can increase anticipation and thus reduce the risk premium.
Acquisition of resources	Firms must reflect on what kind of partner resources could leverage their business model and their own competencies. One frequent form of resource acquisition is partnerships to conquer foreign markets.

Strategic importance

The strategic importance of a partnership how relevant a relationship is to the business success of a company. The more strategic a partnership the higher the score, which is displayed in a five-point scale.

Degree of competition

The degree of competition indicates if the partner with whom the firm has signed an agreement is a competitor or not. Partnerships between competitors in one domain while they compete in others are quite common today as outlined above. The degree will be displayed in a five point scale.

Degree of integration

The degree of integration measures how closely two actors are linked together. This can differ from one type of partnership and agreement to another. Also here the degree will be displayed in a five point scale.

Substitutability

The substitutability of a partnership indicates how easy it would be to find a substitute partner offering the same arrangement. The easier it is to find a substitute the higher the score, which goes from 0 to 5.

Building block Revenue Model

Streaming type

The streaming type describes the type of economic activity with which a company generates a revenue stream. A company can generate revenue by selling, lending or licensing a product or service, taking a cut o a transaction or relying on different sources of advertising.

I will extend this attribute with a number of specific variables. These are:

- Turnover: the amount of total sales
- Delivery fees the charges per delivery
- Profit / loss: the amount of profit or loss
- Number of orders: the total numbers of orders per week
- Average order size: the average size of an order

Building block Cost Structure

The costs I distinguish are the investment costs and the operational costs. I will explain which costs are higher for the seven online grocers.

7.2 Appendix 2: case studies

AH.nl

Pillar 1: Products

The pillar Product includes all products and services Ah.nl provides to its customers. Ah.nl does offer a number of value propositions, which are shown below. Only the Value proposition 'Home delivery of groceries' will be explored in more detail, because this is the main offering and is the only proposition all online grocers do offer.

Building block 1: Value Proposition

For Ah.nl, I distinguish three different value propositions: home delivery of groceries, recipes online and the possibility for customers to use a personal page. The main value proposition is the home delivery of groceries. The service is offered to customers to make shopping easier and to save time. Reducing the effort is the company's main task. The website has to be logically classified and synoptic. It must be easy for customers to find 'their' products. This is the reason why Ah.nl also offers a personal page for every customer. On this page all earlier ordered products are shown, which makes it easier and faster for the customer to do their grocery shopping. By using the Albert Heijn bonus card, it is even possible to look at all the products that are bought in the last couple of months in the conventional AH store. By entering the bonus card number, all these products are displayed at the personal page. So ordering by the Internet will be faster, even when the customer is using the website for the first time.

Albert Heijn is a traditional type of grocery store, just like its web shop. It has not a large additional value for the customers, except its time saving character. The company does not offer many additional products or services. It does offer a special place with recipes and a business area with larger packing. In comparison with other online grocers worldwide, this is not unique and even slightly 'under average'. I will explain this later in the chapter Conclusion. The price level of the web shop can be classified as high-end. The products have the same prices as the conventional Albert Heijn supermarkets, but the additional delivery charges, the minimum order size, and the costs of the crates (although even returnable) makes the service significantly more costly than conventional shopping. The exact amount can be found in a table at the Appendix XX. The value is mainly produced at the moment of buying. This includes the total fulfillment of the service, which means the offering of the personal page, the size of the assortment, the quality of the website and the quality of the total service.

Pillar 2: Customer Interface

The target customers, distribution channel and relationships are the three building blocks for the pillar customer interface. Because of my interview with Mr. Van Neeve (MT member Ecommerce of Ah.nl), I have more information than from other online grocers, especially about the items in the customer interface.

Building block 2: Target Customer

In general, everybody who needs groceries and has an Internet connection can be a customer of Ah.nl. Besides that, it is also groups: Working couples, families with children and small companies. Working couples are often time-starved people. They both work a lot and have to shop in the evening or at the weekend. These people possible to order by phone, but this is not widely promoted. Ah.nl has chosen to focus on three special target do make more money and are willing to pay more for their groceries. For many parents with small children shopping can be disaster. So ordering the groceries from your own home can be a good solution for these parents. Ah.nl has several products special for small children. Small companies can be divided into three groups: small business cantinas, child care centers and nursing homes. Ah.nl has a specialized business area for small companies and childcare centers. Some products in the childcare area are fruit, dairy products and diapers. For the company area, products like beverages, lunch items and office products are displayed. Nursing homes were people live on themselves and independent communities are also an important target group. These people cannot or are not allowed to go shopping by themselves, but can do this (sometimes under supervision) in the Internet.

Building block 3: Distribution channel

The distribution channel allows a company to deliver value to its customers. Ah.nl does use the following seven channels to inform and contact customers:

Channels	Description
AH Bonus	This is the flyer of the supermarket chain Albert Heijn. Close to the larger products, a text is placed like: *Also available at Ah.nl!* They promote the larger and heavier products, which are the main sellers / fast movers of Ah.nl.
website Ah.nl	Ordering: The website Ah.nl is the main way to order the groceries.
	Advertising: The website Ah.nl is also the general website of Albert Heijn. At this way, they promote to shop at the web shop.
AH stores	Albert Heijn has mentioned that Ah.nl will be promoted in the regular AH stores.
Periodic flyers added to the order	Approximately six times a year Ah.nl extra flyers are added to the orders.
TV commercial	Since January 2008, Albert Heijn promotes the general website Ah.nl on TV by a commercial. This commercial does not promote the web shop, but the link to the web shop is clear visible when the customer enters the website.
Online News letter	It is possible to receive a newsletter with the latest news and the latest offers. This way is according Ah.nl less effective than paper flyers.
Sponsoring	In the season 2008-2009 Ah and Ah.nl is sponsor of the Eredivisie (highest soccer league in the Netherlands)

The table above shows a large number of marketing methods to reach the customer. However, not all the methods do seem to be very effective. The main reason why the company changed the name from Albert.nl to Ah.nl is because not enough people knew the name Albert.nl. The marketing did not pay of enough in the past years. The weekly flyer AH bonus does not pay much attention to the online grocer. The slogan *Also available at Ah.nl!* is very small and easy to miss. The TV commercial does promote the website, but not specific the web shop. The promotion at the AH stores are also decreasing, because it is a sort of competitor. Some of the AH stores are run by independent entrepreneurs and they do not like to promote the web shop. The periodic flyers and online newsletter are only available for people who are already buying at Ah.nl. This type of advertising is especially meant for retaining the existing customers. The website is a good and useful marketing tool itself, but people have to go there first and know that the site exists. Another powerful tool is the sponsoring of the Eredivisie. The name of AH and Ah.nl is shown on the board at the side of the field and on the large interview boards after every game.

Building block 4: Customer Relationships

Ah.nl does distinguish two categories of relationships with customers: relationships with consumers and companies. Both categories include the attributes customer equity and function.

Relationship 1: Consumers

Consumers place about 65% of the orders. Therefore, it is not only important to acquire new customer, but also to retain the customers at Ah.nl. Ah.nl uses marketing tools to retain the existing customers and acquire new one. The company offers every week new offers through the flyer AH bonus, the website and by the newsletters. In addition, the use of the bonus card does promote customers to stay at Ah.nl. This relationship

Relationship 2: Companies
Companies place the other 35% of the orders. This means that small companies are responsible for a large part of the total sales. This percentage is larger than the other six online grocers in this research are. Most of these grocers have their focus on consumers. (Customer equity: acquisition / retention)

Pillar 3: Infrastructure Management
The operational processes are very important in the online grocery branch. Ah.nl uses a manual process to pick the orders. For the distribution, the company uses a hub-and-spoke model. The delivery window is not very flexible and varies per region.

Building block 5: Value Configuration
The value configuration of Ah.nl includes all primary and secondary processes from the order entry to the order delivery. Primary processes are attracting customers, the order pick process, distribution to the customer and website orientated processes. Secondary processes are for example people management, customer service and stock management.

Order pick process
In 1998 AH delivered the groceries from the conventional supermarkets. Orders were picked during the opening times and at the same time conventional customers were shopping. When a product was not available, a substitute was added or in some cases nothing was placed. Since 2001, the company (now with the name Albert) build a number of warehouses were the orders were picked. Order pickers at Ah.nl pick the orders on a manual way. They pull a trolley through the warehouse and pick all the frozen and non-frozen products separately. Each order picker can pick a small number of orders at the same time (figure 2,5). The company gets supplied by its owner, Albert Heijn. This makes them a brick-and-mortar supermarket according m

The value configuration of Ah.nl includes all primary and secondary processes from the order entry to the order delivery. Primary processes are attracting customers, the order pick process, distribution to the customer and website orientated processes. In general, Ah.nl is a 'traditional' online grocer. The company does not use a very sophisticated way of picking and delivering the orders. Their order entry system and stock management system is automated, but that is essential for every scale large online grocer.

Stadia of Ah.nl: from James telesuper to Ah.nl
Ah.nl is currently the only large scale online grocer in the Netherlands. In the period the company exists, the company made three transformations. From ordering by phone to ordering on the Internet, from order picking at stores to Dc's, from local distribution to hub-and-spokes.

James Telesuper (1987 – 1998)
In 1982, Eric Albada Jelgersma started a delivery service for groceries, named Sir James Telesuper. People could order their groceries by phone. In 1987 Ahold bought the delivery service, but did not pay much attention to the company. The company is renamed to the AH thuisservice in 1998, when the company gets a web interface.

Albert Heijn Thuisservice (1998 – 2001)
In 1998 AH delivered the groceries from the conventional supermarkets. Orders were picked during the opening times and at the same time conventional customers were shopping. When a product was not available, a substitute was added or in some cases nothing was placed.

Albert.nl (2001 – 2007)
Since 2001, the company (now with the name Albert) build a number of warehouses were the orders were picked. Order pickers at Ah.nl pick the orders on a manual way. They pull a trolley through the warehouse

and pick all the frozen and non-frozen products separately. Each order picker can pick a small number of orders at the same time (figure 2,5).

There are two different order pick methods in the online grocery branch: fulfillment by distribution centers or from stores. In the Netherlands Ahold did use the in-store methods until 2001 by Ah Thuisservice. From 2001, they changed the name into Albert.nl and went from store-based picking to DC based picking from three DC's.

> ***Reason to change from supermarket to DC method***
> *In an article on the Internet[6] and during my own interview with a member of the board of Ah.nl, reasons were mentioned for the switch from supermarket distribution to DC distribution. First, this method has a large impact on the personnel and the store in general. The number of personnel in the stores increases which is not in favour of the normal shopping customers. Second, it is harder to guarantee if the products are available. If people buy the products in the supermarket, it is hard to predict if the product is available for the online customer on the moment he wants it to be delivered. With the current stock management system the customer knows if a product is not available, because it simply cannot be ordered. The picture of the product will change colour and cannot be selected. Third, a consequence of the first two reasons was a poor quality of the service. In the interview I had was mentioned that just 80% of the orders was delivered on the appropriate way. So on every five orders one went wrong, which is of course very dramatic. Fourth, in 2001 Ahold had the idea to put all their formulas under one large 'umbrella' as they called it. In 2001, those formulas were Albert Heijn, Gall&Gall, Etos, Deli XL, and De Tuinen. In 2002, Ahold sold de pharmacy chain De Tuinen and in 2005 they sold wholesaler Deli XL. Therefore, these formulas disappeared from the web shop. Last, the costs for store-based picking were higher than DC based picking. The number of products they could pick is low, because they have to 'travel' through the entire store. When there are just a small number of orders this is not a problem, but at some AH stores this number increased rapidly.*

Ah.nl (2007 – present)
In 2007, the company changed its name from Albert.nl to Ah.nl. this change did not change the operational level, but only the marketing strategy. The company's explanation for the name change was that not enough people could recognize that Albert.nl was part of Albert Heijn[7]. Ah.nl was already the general site of the Albert Heijn supermarket, but is now positioned as the web portal for the total AH services, including the web shop, recipes and customer service information. By renaming the web shop to Ah.nl people immediately recognize the site as part of the supermarket.

Distribution method
Ah.nl uses a hub-and-spoke model to distribute the orders. The company has two distribution centers and four spoke locations. The hub in de Meern delivers the picked orders to the spokes in Nijmegen, Zaandam and Amsterdam. The hub in Rotterdam delivers to the spoke in Tilburg. From these spokes and from the DCs itself chauffeurs deliver the orders to the customers. Ah.nl has about 500 chauffeurs for almost 200 delivery vans. The average number of orders that can be delivered per shift is 14.5. At more densely populated areas, an average of 20 orders per shift is possible. This number will be hard to increase, because it will cost a certain amount of time to get to a customer and to deliver the order at the spot. A second obstructing factor is the maximum load capacity of the vans. The maximum allowed capacity is 3,500 kg for the vans and the chauffeur with a normal car license.

[6] http://www.emerce.nl/nieuws.jsp?id=44653
[7] http://www.distrifood.nl/formules/id101-60103/ah_schrapt_albertnl_als_internetformule.html


Figure 7.1: order picking at Ah.nl

Time slot

Ah.nl uses a two-hour time slot. Not every delivery time is available for every area. For example, people in thinly populated areas can just choose a view time possibilities per day instead of every time they want, like in larger cities.

Building block 6: Capabilities

Ah.nl is able to use important knowledge about grocery shopping, online as well as offline. The company can make use of the conventional AH stores by their brand name, product range en the available distribution lines. A last important characteristic is that the company is not dependent on external financial partners. The company can decide on their own when the losses are to large to continue the business.

Capabilities	*Subject*	*Definition*	*Resource type*
Capability 1	Know-how about groceries	People from Albert.nl / AH thuisservice, people from other Ahold daughter Peapod, part of existing food retailer (market leader in the Netherlands). The company can also use the knowledge about the conventional AH stores.	Human
Capability 2	Distribution lines available	The planning system, delivery system to the supermarkets	Intangible
Capability 3	Brand name	Ah.nl and Albert Heijn itself are market leader in the Netherlands. The brands are know by practically everybody	Intangible
Capability 4	Access to large product range	Ah.nl has access to a large range of physical products. They have chosen to provide customers 10.000 of the available 22.000 products.	Tangible
Capability 5	Ability to catch start losses	It is a large advantage to be part of a successful supermarket chain. This gives the Ah.nl the possibility to make losses at the start. This extra buffer can be a key element of becoming profitable.	Intangible

Building block 7: Partnership

The company is part of the Albert Heijn concern. The supply happens just like conventional AH supermarkets. The price and product line are also comparable to the AH supermarkets. Some smaller partners are the maker of the website and the lease company for the delivery vans. The 'partnership' with Albert Heijn is the main factor why the company still exists. If the company was completely independent, it probably did not exist anymore without large financial support.

Albert Heijn:

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty and acquisition of resources
- Strategic importance: 5
- Degree of competition: 2
- Degree of integration: 5
- Substitutability: 0

Pillar 4: Financial Aspects

The financial figures of Ah.nl are based on press releases and were noted based on estimated figures. Although these figures cannot be used as official data, it gives an idea of the size of the company.

Building block 8: Revenue Model

According a Dutch retail website[8], the turnover of Ah.nl was estimated on approximately €87 million in 2005. Because Ah.nl is the only grocer in the Netherlands, this unofficial figure makes clear that the online grocery market is not large in this country. These figures look even smaller as we count in that just 65% of the orders are placed by consumers and 35% by companies. According another research (September 2008), the turnover increased to €107 million in 2007[9]. Zigt.nl is a media bureau that among other things provides tariff indicators to advertise at a large number of companies. The tariff indicator of Albert Heijn[10] shows that when a company or supplier wants to promote a product it will reach 18,000 customers, 12,000 consumers and 6,000 businesses.

- Turnover: €107 (2007)
- Delivery fees between €4,95 and €9,95
- Profit / loss: loss (amount not available)
- Number of orders: around 18,000 orders per week (2008)
- Average order size: around €130

The turnover was about €87 million in 2005 and increases with approximately 25% per year. This would mean that the company has a turn over about €135 million in 2007. The average order size is €130 per order and on average orders are placed ones every two weeks per customer. Calculation:

The formula manager has stated that fresh products made 42% of the turnover. The delivery fees are between €4,95 and €9,95 dependents on the day and deliver time. The company has a lead-time for 16 hours to deliver groceries. This means that the orders has to be done before noon to get it delivered the next day or ordered before midnight to get it delivered the next day after 16.00 hour (4 PM).

Building block 9: Cost Structure

There is not much information available about the costs of AH.nl. When Albert.nl started it business the company had three large DC's. After just one year one of the DC's had to be closed, because the number of orders did not increased the way they expected. In an interview an MT member said that the investment costs would not be earned back within 25 years. During my interview with Mr. van Neeve, he stated that the company was not operational profitable yet, but could reach the status of operational profitable within a year. In early 2009, this status is still not reached.

[8] http://www.zibb.nl/10154228/Nieuws/Nieuwsbericht/Geheime-omzet-Albert.nl-lekt-uit.htm
[9] http://www.distrifood.nl/formules/id101-142145/albertnl_in_top_10_webwinkels.html
[10] http://www.zigt.nl/getfile.php?id=9455

Maxfoodmarket

Pillar 1: Products

Maxfoodmarket is not unique in offering the amount and kind of products. The service on the other hand was unique in a number of ways. In building block 1 and 5 this will be explained in more detail.

Building block 1: Value Proposition

The value propositions of Maxfoodmarket are home delivery of groceries and the offering of online recipes. For the home delivery, a number of attributes are specified and shown at the appendix XX. At the moment the company ceased its business, Maxfoodmarket offered approximately 5,000 products to their customers. In the last couple of month the company also offered a small number of office products, like pens, staplers and all kinds of paper. The company also offered recipes on the website. The reason why customers buy at Maxfoodmarket is the high degree of service. This degree may be in some point higher than Ah.nl at the time. Maxfoodmarket and Ah.nl (then still Albert.nl) were the only online grocers in the Netherlands (period 2000 – 2002).

Attribute	*Description*
Reasoning:	(Effort) Maxfoodmarket provides a service that makes shopping easier and saves the customer time.
Value level:	(Me-too) Worldwide several companies deliver groceries on a similar way and with a similar website. There are not additional products and the overall service is similar to its competitors.
Price level:	(market) The product prices are similar to the prices in the Jumbo stores. The price level of the supermarket chain is average to economy.
	(economy) The groceries are delivered in crates, which cost €3 each (returnable), but the company did not charge a delivery fee. The minimum order size was €35. With the free delivery, the total price level is economy.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

The value level of the company was higher, because they offered a same day delivery service. It was possible to receive the groceries just two hours after ordering them. The low threshold is a second positive feature. The minimum order size was €35, which is much less than the €60 of Albert.nl. The price level was the same as Jumbo supermarket, but Maxfoodmarket did not charge any delivery changes. This makes the online grocer the cheapest of the seven grocer in this research. This increases the customer's value level. There were also no limitations about the time of ordering. Customers in every available area could pick every time between 8 AM to 8 PM. More details are explained in at the building block Value configuration.
The value for the customer is created at the purchase (life cycle). The products are cheaper than Albert.nl and the degree of service is also higher.

Pillar 2: Customer Interface

The customer interface is a very important part for every online grocer, but especially for Maxfoodmarket. The company applied a strategy to attract customers first and increase the margin on a later moment.

Building block 2: Target Customers

Maxfoodmarket is targeting on the up market. The strategy could also be suitable for lower classes, because of the low threshold for buying groceries. There were no delivery fees, low products prices and a low minimum order size. During my interview with the owner of Maxfoodmarket it became clear that the high end of the market was more interesting, which also resulted that the company did not start a center in

Rotterdam. In Rotterdam the average incomes are significantly, lower than for example Den Haag or Amsterdam. The company has a specific focus on the groups working couples and families with children. Working couples are often time-starved people. They both work a lot and have to shop in the evening or at the weekend. These people do make more money and are willing to pay more for their groceries. For many parents with small children shopping can be disaster. So ordering the groceries from your own home can be a good solution for these parents.

Building block 3: Distribution Channel

Maxfoodmarket had a large problem even before they started: nobody knew them. The name Maxfoodmarket is not related to an existing supermarket and the name itself can also mean a number of different kinds of businesses. This could be a very expensive job. The company tried to tackle this by using free media, also called Buzz media[11]. The company used interviews in magazines, newspapers and TV appearances to reach as many people as possible with a small budget. The company did deliver in three areas, namely Leiden / Rotterdam, Utrecht and Haarlem / Amsterdam. This is the reason why the company just local advertising. This local advertising were weekly and weekend papers. For existing customers the company had introduced a newsletter with weekly offerings. The last tools was of course the website itself.

Building block 4: Customer Relationships

The relationship with the customers is mainly based on consumers and just for a small part on businesses. 90% of the orders are placed by consumers and 10% by businesses.

The strategy of Maxfoodmarket in their first years, and now we now their only years, was to attract as much customers as possible (customer equity: acquisition). They tried to attract these people by offering a free delivery service, cheap products and a low threshold for shopping online. The next step they had planned was to raise the prices and start with a small delivery fee for products below €80. They managed to raise the prices in July 2001, but before they could introduce the delivery fee the company went bankrupt. They expected to lose 1/3 of the customers, from 4,800 to 3,200.

Pillar 3: infrastructure Management

Building block 5: Value Configuration

The operational process of Maxfoodmarket was unique in a number of ways. They used a fully automated order entry system without the need of human interference. Maxfoodmarket was also the only online grocer in the world to deliver the groceries two hour after ordering.

Order pick process

Maxfoodmarket uses three Dcs, called Maxfoodcenters. In these Maxfoodcenters orders were picked manually. The Maxfoodcenters had a size between 2,000 and 2,500 square meters and were capable to produce 3,500 orders per week. A special area was available for the so-called ‘fast movers’ and for the ‘slow movers’. Fast movers are 20% of the product range that produces 80% of the total sales. The slow movers are 80% of the product range that is responsible for the remaining 20% of the sales.

The company had a sophisticated system from the order entry to the order pick process. The real time stock management system showed the customer if a product was available at the desired time. After the customer accorded the order, it automatically was placed into the system of Maxfoodmarket. The order was also automatically placed into a planning program for the most efficient delivery route. Each order was completely picked by one order picker on a single trolley. One of the ‘basic thoughts’ mentioned by Maxfoodmarket was the just-in-time order assembly. Each order is picked just before the driver leaves. A reason for this choice was the short lead-time (time between order entry and order delivery). The company offered a service that includes delivering orders just two hours after ordering it.

[11] http://www.communicatiecoach.com/vakgebied_strategie_art_buzzmarketing.htm

Distribution method and time slot

Maxfoodmarket has three DCs were the delivery vans start their routes[12]. The company does not make use of a hub-and-spoke model, as Ah.nl does. Maxfoodmarket offered a two-hour delivery service. This means that the order is delivered just two hours after ordering. This also includes that every hour a small delivery van have to leave the DC. Every delivery van was capable to deliver four or five order per route. Every route is able to deliver four orders in two hours. This is a large and maybe a significant disadvantage for Maxfoodmarket, because after every two hours the delivery van has to drive back to the DC. This is less efficient than a larger route.

Building block 6: Capabilities

Maxfoodmarket was an independent online grocery store. The founder is an entrepreneur with retailing experience and a new and innovative idea.

Capabilities	*Subject*	*Definition*	*Resource*
Capability 1	Supermarket experience	The founder of Maxfoodmarket was sales manager of a retailer (Grosmarkt)	Human
Capability 2	Distribution lines available	The planning system, delivery system to the Jumbo supermarkets	Intangible
Capability 3	Access to large product range	Ah.nl has access to a large range of physical products. They have chosen to provide customers 5.000 of the available 30.000 products.	Tangible

Building block 7: Partnership

Maxfoodmarket was an online grocer that was not start-up from an existing network. They had to find money from private investors and had to find a supplier for the products. Jumbo Supermarkets was prepared to supply the company with groceries. A number of investors were also interested in investing in this new born company. In this period, 1999 / 2000, the Internet was a big hype and the investments were kind of guaranteed. The total amount of investments were at the end €14 million. These investors were not prepared to invest more money, even though the founder kept telling (and still believing) that the company would be EBITDA profitable within half a year.

Jumbo supermarkten

Reasoning:	optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
Strategic importance:	3
Degree of competition:	1
Degree of integration:	3
Substitutability:	4

Pillar 4: financial Aspects

The financial aspects include a revenue model and a list with costs. Maxfoodmarket went bankrupt in December 2002. These financial figures are gathered by studying several internet articles and the founder of Maxfoodmarket ratifies this information. Some information was directly given by the founder by means of a PowerPoint handout and information during the interview.

Building block 8: Revenue Model

Maxfoodmarket delivered at November 2002 about 4,800 orders per week. In October, the average per week was 4,300 and in September, this was 3,900. This rapid increase of the number of sales was not

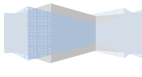
[12] http://www.logistiek.nl/archief/id24736-Het_geheim_achter_Maxfoodmarket.html

enough to cover the costs. The main reason was that the margin on the products was very low and the company did not charge a delivery fee for delivering the orders. The company uses the same prices as conventional Jumbo supermarkets did. Because these Jumbo supermarkets have a larger turnover per location and the low margins this was not the right strategy to survive the first couple of years. Even with the increase of the product prices in July 2002 with 2% the company could not survive. Maxfood's strategy includes a free delivery of the orders, with a minimum order size of about €35 per order. With this approach, the company tried to attract a large number of customers first. Their goal was to introduce a delivery fee (€2,75) in 2003. Maxfoodmarket predicted that 1/3 of the customers would leave the company, but the delivery fees should catch this up.

Turnover:	4,800 x €80 = 384.000 per week (app. €20 million per year)
Delivery fee:	none
Profit / loss:	loss
Number of order per week	4,800
Average order size	€100

Building block 9: Cost Structure

In just two years, investors and banks have invested more than €14 million in Maxfoodmarket. About €7 million was spent for the initial investments. The other €7 million was used to catch losses in these two years. The initial costs were that high, because the company opened three dc's in just a short period. In addition, the costs of the website and software were in the early 2000s high, because it was very innovative at the time.



Tesco.com

Pillar 1: Products

The products and services Tesco.com offers are not limited to groceries and an impersonal online service. These important features are explained in the next building block.

Building block 1: Value Proposition

The main value proposition is delivering a total service for their customers. For this research I will focus on the home delivery of groceries and related products. Tesco.com is based on the traditional supermarket Tesco. This makes the image and the website not unique or spectacular. But this does not mean that Tesco.com is not innovative. On the contrary, an important feature that most other online grocers do not have is the connection to a large number of additional products, like TescoDirect.com. This together with a large grocery assortment makes the customer's value level rather high. After entering the Tesco.com website, a choice can be made for the tabs Groceries, Tesco Direct, Wines, Entertainment, Finance & Insurance and Phones & Broadband. The prices at Tesco is quite average in the UK market. The 'grocery department' itself is very user friendly and gives a personal touch to every customer. It is possible to enter a personal part of the website, just like most other online grocers. Another feature is that personal messages can be added for the order picker. For example, if the customer likes green bananas instead of ripe yellow ones. Also is it possible to add substitution products for if a specific product is not available. This can be handy, because the orders are picked in a conventional, local store. It may be possible that conventional customers have bought a last specific product. This cannot be shown on the website, which is a clear disadvantage of the store-based picking method. The customer has to decide in advance if or when a substitute should be placed or the products should be left out. An advantage of the local store-based picking is that customers may know the order picker, because he or she works at the local Tesco store.

Attribute	*Description*
Reasoning:	(Effort) Tesco provides a service that makes shopping easier and saves the customer time.
Value level:	(innovative innovation) the website of Tesco offers more than other online grocers in this research. The portal offers not only groceries, but also a large number of additional products and services.
Price level:	(high-end / market) The product prices are similar to the prices in the Tesco stores. These prices are the average of the UK market. The additional charges (£4 - £5)will make the order significantly more expensive than conventional shopping.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

Some other value propositions are the online recipes, the Tesco club card with personal page and the additional products and services by Tesco Direct. All these value propositions are very valuable for the company. They can attract extra customers or extra sales by the additional buys from existing customers.

Pillar 2: Customer Interface

The customer's interface of Tesco is well developed. The company uses its brand name, their experience and a good website for the marketing of their service. In this pillar the target customers, distribution channel and the relationships with Tesco's customers will be explained.

Building block 2: Target Customers

Tesco targets on the higher end of the market, but starts to attract more people from the lower classes. The target customers are working couples and families with children. Tesco is marketing online groceries as a

convenience, not as a low price option – charging customers a delivery charge in addition to the retail cost of groceries (Delaney – Klinger 2003).

Target group	*Type*	*Definition*
Target group 1	Working couples	Working couples are often time-starved people. They both work a lot and have to shop in the evening or at the weekend. These people do make more money and are willing to pay more for their groceries.
Target group 2	Families with children	For many parents with small children shopping can be disaster. So ordering the groceries from your own home can be a good solution for these parents. Ah.nl has several products special for small children.

Building block 3: Distribution Channel

Tesco reaches their customers by using their conventional supermarkets and by several different marketing methods. The company uses direct marketing by advertising in the supermarkets itself. This is can be done, because the orders are picked in these stores and it is not a kind of competition. At Ah.nl this method may be some kind of competition, because a large number of supermarkets are entrepreneurs. The turnover of Ah.nl in their areas is not for the supermarket owners, so it may decrease its turnover. Another way Tesco.com advertises in by TV commercials.

Building block 4: Customer Relationships

Close relationship between the closest Tesco store and the customers are important aspects of the relationship between Tesco and the customer. Customers can write additional personal messages for the order pickers. With this personal touch the company creates (trust) personalization
Personal messages

Pillar 3: Infrastructure Management

The value configuration includes the operational flow of Tesco. Tesco is the online store in this research which uses a store-based order picking method. This method is the closest to the conventional shopping a regular customer should do.

Building block 5: Value Configuration

The entire value configuration is very traditional. The company picks the order from the conventional supermarkets and the groceries are delivered by the company itself.

Order pick method

Tesco, the number one online grocer in the world, uses the store pick strategy. With the network of stores, Tesco can reach approximately 98% of the UK population. The company uses 294 stores and 1.600 vans to deliver the groceries. At the nearest store the order are collected. A more used name for this type of grocers is click-and-mortar grocers. Approximately 64 items can be picked per hour with this method (Boyer et al. 2002).Tesco developed a sophisticated semi-automated in-store picking service, supported by local refrigerated delivery vans using existing facilities rather than building high-tech dedicated warehouses (Delaney-Klinger e*t al.*, 2003).

The orders are picked in the same store were normal customers do their groceries. The order pickers can be seen as professional shoppers. They know where the products are, which gives them a time advantage. The order pickers are able to pick about 120 items per hour this is equal to two orders per hour. This is significantly slower than order pickers in a distribution center, but the initial investments are also smaller. The existing supermarkets can be used to pick the order. A disadvantage is that a stock management system is not possible. Tesco works with substitute products for items that are not available. This approach works much better for lower volumes of business (Delaney – Klinger 2003). In 2007, Tesco.com had about 9,000 pickers, the majority in existing stores, and a couple hundred in a dot-com-only store in Croydon.

Distribution

The distribution is done by the company itself. Every grocery store has its own delivery vans. In 2007, nearly 1,860 vans delivered groceries for 294 stores. This means that every store has an average of almost 7 vans running to deliver the groceries. Some supermarkets just do have a small number of vans, but for example in New Castle a supermarket has 18 delivery vans.

Time slot

It is possible for customers to choose from a wide variety of times from a time table. The time tables may vary in the different regions. They use a two hour delivery slot and charge between £4 and £5 per order. It is not possible for the customers to choose every possible time in the time window. Tesco is proving that if the density of customers increases, the time window per area does becomes more extended. In 2007, on average the time windows become 10% larger. More customers can now choose more times to get their groceries delivered.

Building block 6: Capabilities

The capabilities of Tesco are

Capabilities	*Subject*	*Definition*	*Resource type*
Capability 1	Know-how about groceries	Tesco has a lot of experience (since 1919) in the grocery branch.	Human
Capability 2	Distribution lines available	The planning system, delivery system to the supermarkets	Intangible
Capability 3	Brand name	Tesco and Tesco.com itself are market leader in the UK. The brands are known by practically everybody.	Intangible
Capability 4	Access to large product range	Tesco has access to a large range of physical products..	Tangible
Capability 5	Ability to catch start losses	It is a large advantage to be part of a successful supermarket chain. This gives Tesco.com the possibility to make losses at the start. This extra buffer can be a key element of becoming profitable.	Intangible

Building block 7: Partnership

Partnership with Tesco supermarkets

Partner	*Type*	*Description*
Tesco	Operational / financial / knowledge	Supplying groceries / knowledge about grocery market / financial supporter for store owners

Tesco

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
- Strategic importance: 5
- Degree of competition: 0
- Degree of integration: 5
- Substitutability: 0

It is clear that Tesco is the most important partner and cannot be missed. The online grocer is completely integrated into their conventional business. It is simply not possible to replace Tesco as a supplier.

Pillar 4: Financial Aspects

Building block 8: Revenue Model

Revenue is made by selling groceries and by the delivery fees. Tesco direct also delivers a large number of additional products, like furniture, clothing and DIY products. With this supermarket model they were the first online grocer in the world that becomes profitable. In total 1,700[13] delivery vans deliver groceries for 494 Tesco stores. Tesco's market share (online) is in September 2008 27,1%. The Croydon only-dot-com is profitable and has a turnover of 1 million per week. Tesco.com-only store have been developed in those parts of the UK where Tesco has few stores or where those it has are exceptionally busy.

Turnover:	£1,6 bln
Delivery fee	£4-5,00
Profit / losses:	Profit £124 million
Number of orders:	+300.000 order per week (2007) (1 million active customers)
Order size:	£110

Building block 9: Cost Structure

The main costs are the operational costs. The company had to invest in special trolleys to pick the orders inside the stores. The other costs are the delivery vans and the planning programs. These costs are the same as the other grocers. In total, the company invested just £59 million before they went break-even. There is not another large online grocer who has achieved that. The company is able to reduce the marketing costs, because they can use the marketing tools of the existing Tesco stores.

[13] http://www.rospa.com/drivertraining/news/tesco.htm

Ocado.com

Pillar 1: Products

The value proposition of Ocado includes the home delivery of groceries, recipes online and a personal page for customers. Each of the value propositions is divided into a number of offerings to specify the propositions.

Building block 1: Value Proposition

The main value proposition is the home delivery of groceries. Ocado delivers groceries in and around London. They have a large warehouse in Hatfield. The value proposition can be decomposed into several offerings:

Customers can order the groceries from inside their home or at work. They can do this on the Ocado website. It is not possible to order by phoning to Ocado, but if your phone or Blackberry has an Internet connection it is possible to place an order. The customers can use a search engine to look for the products they want to buy. Also a multiple search engine is available to search even faster. A second way to search for products is by using the displayed categories, which will help to find the products more easily. After selecting a category, a subcategory is displayed with on top the topics 'offer' and 'new this month'. The subcategories to choose from are divided into type of products (e.g. milk, eggs, butter) and a more general distinction (e.g. kosher or organic). If a particular product is not available it will be replaced with a suitable alternative if one is available. Ocado uses a special tab for their monthly offers. In that same tab the placed some ideas to choose from. For example, the tabs *the wine of the month, lunchbox ideas, organic ideas* and *new added products*.

Attribute	*Description*
Reasoning:	(Effort) Ocado provides a service that makes shopping easier and saves the customer time.
Value level:	(Me-too) Worldwide several companies deliver groceries on a similar way and with a similar website. There are not a lot of additional products and the overall service is similar to its competitors.
Total prices	(high-end / market) The product prices are similar to the prices of Waitrose. The price level of the supermarket chain is rather high. The charge a small delivery fee for order less than £75 and no charge at all for order larger than £75. In comparison with other online grocers in total price of the order is very competitive.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

Pillar 2: Customer Relations

Building block 2: Target Customers

In general, everybody who needs groceries and has an Internet connection can be a customer of Ocado. The target customers of Ocado are the high-end of the market. This group is prepared to pay more for the extra service the company has to offer. Specifically working couples and families with children are the focus.

Target group	*Type*	*Definition*
Target group 1	Working couples	Working couples are often time-starved people. They both work a lot and have to shop in the evening or at the weekend. These people do make more money and are willing to pay more for their groceries.
Target group 2	Families with children	For many parents with small children shopping can be disaster. So ordering the groceries from your own home can be a good solution for these parents. Ah.nl has several products special for small children.
In general: Ocado, just like Waitrose, is targeting the upmarket.		

Building block 3: Customer Relationship

The acquisition of customers is a hard job for a pure play online grocer like Ocado. The company cannot use an existing network of supermarkets to promote the new service. Ocado does make advantage of the supermarket of Waitrose. They do this not by advertising in their stores, but by using their name in the logo. The company tries to reach new customers by local advertising and TV commercials. In addition, the recent 'attack' on Tesco does make the name Ocado more familiar in the UK[14]. The main slogan Ocado uses is that they are the greenest online grocery store in the world. After 'convincing' the new customers, it is the trick to keep them at Ocado. Ocado does this with a good service and reputation. Their reputation is to be a green online grocer that is active with minimizing the environmental damage. They have not a customer loyalty program. Add-on selling is for Ocado not a main task, because of the limited additional services. Ocado does not have additional product groups like Tesco and Asda have. They do promote extra selling by their tabs 'Ideas' and 'offers'.

Mechanism	*Description*
Personalization	Each customer has the possibility to go to a personal page when they logged in. On the personal page previous orders and products are displayed. Customers can now find and order their products faster.
Trust	To retain people at Ocado trust have to be build. Ocado does this with a good service and good products. In addition, the name Waitrose is essential for this success. Waitrose offers qualitative good products and Ocado makes use of that.
Brand	Ocado is now the number 2 of the UK. The brand Ocado is now a well-known name in the UK in contrast to several years ago. In the first seven years the slogan 'in partnership with Waitrose' was prominent present in the logo of Ocado. Because of the current negotiations, the slogan has removed.

Building block 4: Distribution Channel

Ocado has several ways to approach the customers. The company is using local as well as nationwide advertising methods. A small number of offers are published and customers are requested to take a visit at the website. For local advertising they advertise in local newspapers. For nationwide advertising Ocado is using TV commercials and the website itself. Ocado does promote the website with TV commercials. They have three commercials, which promote the convenience of the store and the environmental advantages of Ocado. Every delivery van prevents 20 other cars to drive to a supermarket. (Commercials at ocado.com) The website is also the main communication and information source to the customer. Information about products, offers, corporate information, careers and terms and conditions can be found on the website.

Besides employing mass media techniques such as television, radio and newspaper/magazine advertising, Ocado concentrates on direct marketing to a focused area. In order to build initial customer awareness, Ocado developed a four step-marketing plan:

[14] http://business.timesonline.co.uk/tol/business/industry_sectors/retailing/article3516948.ece

Every customer in the phased roll-out areas was sent an introductory letter. This letter described the Ocado business model, emphasized the partnership with Waitrose and provided an initial introduction to the website for ordering.
Potential customers were sent an introductory packet including an Ocado branded coffee packet – along with an invitation to "sit and have a cup of coffee with Ocado". The idea was to introduce Ocado as a relaxed, value-added business that would help free up customers' time. The third mailout was a follow-on packet with an offer of £10 off each of a customer's first five orders. This packet also contained an Ocado apron. The second Follow-on packet was sent several weeks after the apron packet. This packet served as a reminder to customers and included an Ocado oven mitt. (Boyer 2002)

Pillar 3: Infrastructure Management

Building block 5: Capability

Ocado has a number of capabilities to start and run an online grocer. The founders of the company have the knowhow to lead a large company. The three founders were manager at the large bank Goldman Sachs. They can also make use of their partner John Lewis (Waitrose). Especially the distribution lines, the number of product lines and the brand name 'Waitrose' are very useful for the company. The company started from nothing. They were able to do this with the help of informal investors and large bank loans. This gives them the ability to invest and to catch losses.

Capabilities	*Subject*	*Definition*	*Resource*
Capability 1	Know-how about managing a large company	They know how the three founders have gathered is very valuable for the company, because of the size they have aimed to reach in a short period of time.	Human
Capability 2	Distribution lines available	The planning system, delivery system to the supermarkets are already available from Waitrose.	Intangible
Capability 3	Brand name	Ocado has the advantage of using the brand name of Waitrose when they started the company. They placed in the title 'in partnership with Waitrose'.	Intangible
Capability 4	Access to large product range	Ocado has access to the entire product range of Waitrose. At this moment Ocado's product range contains 15,000 products.	Tangible
Capability 5	Ability to catch start losses	Since the start in 2002, more than £250 million has been spend to keep the company alive. Some large investors believe in this concept, which means that the company will survive for a number of years even when it keeps making losses.	Intangible

Building block 6: Partnership

The partners of Ocado are crucial for the continuity of the company. The partners can be divided into three sections: operational, financial partners and knowledge.

Partner	*Type*	*Description*
John Lewis (Waitrose)	Operational / financial / knowledge	Supplying groceries / knowledge about grocery market / largest financial supporter and main shareholder (28%)
General suppliers	Operational	Providing inventory, vans and other products
Large banks	Financial	Invested for about 50 million (bank loan) UBS (11%) and Goldman Sachs
Informal investors	Financial / knowledge	Inventor of TETRA pack (Rausing family) is a large investor, some other smaller investors

Waitrose

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
- Strategic importance: 5
- Degree of competition: 4
- Degree of integration: 4
- Substitutability: 2

Building block 7: Value Configuration

The main configuration type is *value chain*. The value creation logic of a value chain is the transformation of inputs into products (Stabell and Fjeldstad 1998; Porter 2001). In the case of online grocers, this means 'producing' orders for customers.

Ocado is a unique company when we look at the way it started its business. The owners were convinced that they should start with a large warehouse. They were able to find a large number of investors and so they could give the order to build a state-of-the-art warehouse. This idea started with the bankruptcy of Webvan. They learned from their mistakes and improved the distribution method.

The order pick method of Ocado is unique. In Hatfield, near London, the company build a state-of-the-art warehouse. This distribution center is the center of Ocado's operations and built to handle orders placed over the Internet for home delivery to customers in the London metropolitan area. The ultimate capacity of the distribution center is equivalent to the sales volume of approximately 20 stores. In the warehouse, plastic boxes travel around 10 miles on conveyor belts to fulfill shopping orders. With this method, they are able to pick 600 to 800 items per hour[15]. Store based picking as Tesco does have a picking speed average of 120 products per hour (Boyer et al. 2002).

Ocado is the only online grocer in the UK that picks the order from a warehouse. Besides that, they are the only online grocer, which uses a sophisticated and automated warehouse in the world. In a warehouse with the size of 10 football fields, the company picks 12,000 orders per day. A large number of conveyor belt transports the orders through the factory. One with this method they are able to pick that many orders in a short period on one location.

[15] http://business.timesonline.co.uk/tol/business/industry_sectors/retailing/article2935761.ece


Figure 7.2: order picking at Ocado

The company uses a hub-and-spoke model to deliver the groceries. It is important to deliver the groceries on the agreed time for the credibility of the company. it is very easy for a customer to go to a conventional supermarket like they did before. The groceries need to be transported under the right circumstances. The frozen products are transported with dry ice. Ocado uses complete packed units that will be transported to the spokes. These units can directly be placed on the delivery vans. This will shorten the total delivery time.

The stock management used at Ocado is a very complex system. This real-time stock management system knows what is in stock now, what is already been ordered at the wholesaler (Waitrose) and how many already has been sold. The result is that the customer can see if a product is available at the desired delivery moment. When this is not the case, the product cannot be ordered and the customer has to look for a substitute. The rate of circulation is added manually (Similar as Ah.nl).

The delivery method is also very unique. The delivery vans they use are some kind of pickup vans. In picture 2 (above) six delivery units are transported to another location were these will be put on a pickup van (picture 3). This saves a lot of time, because there is no need to place every box manually in the vans.

The time slot is not unique in comparison to other online grocers. The company uses a one-hour time slot. Customers can choose from a number of times. Just like Ah.nl, Ocado offers more available delivery times in densely populated areas than rural areas.

The order pick method of Ocado is unique. In Hatfield, near London, the company builds a state-of-the-art warehouse. This distribution center is the center of Ocado's operations and built to handle orders placed over the Internet for home delivery to customers in the London metropolitan area. The ultimate capacity of the distribution center is equivalent to the sales volume of approximately 20 stores. In the warehouse, plastic boxes travel around 10 miles on conveyor belts to fulfil shopping orders.

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Pillar 4: Financial Aspects

The financial aspects are the result of the other three pillars. This pillar is divided into the building blocks costs and revenue. It is a very good performance that this independent online grocer has a turnover of more than £350 million per year and has over 150,000 active customers.

Building block 8: Revenue Model

The revenue at Ocado is gathered by selling the products and charging a delivery fee. The margins are very low at the conventional supermarket branch and probably even lower at the online grocery branch. The investments in the past 8 years are estimated on £300 million. Although Ocado have made a loss of £43 million in 2006 they do have made a positive EBITDA for the first time in October 2006. This means according earlier publications that a 70% of the maximum capacity has been reached.

Building block 9: Cost Structure

Ocado has chosen for the distribution model to pick the orders. This means that the initial investments are very high. The sophisticated warehouse in Hatfield did cost about £80 million to build[16]. In the previous eight years the company have spend more than 300 million, including the losses they have made in these years. In 2006 the retailer's operating costs were around £35 million a year and cover warehouse, IT and marketing. Other financial data is not available. Ocado has made more than 8m (until July 2008) deliveries since its launch in 2002 and this month passed £1bn in cumulative sales. It is now profitable at the operating level but still in the red when interest costs are taken into account through the accounting method known as Ebitda (earnings before interest, taxes, depreciation and amortisation). The CEO insists that should change very soon: "We are doing £350m sales now. We are growing at 25% a year. If we go to sales of £700m our Ebitda will go from £5m to £60m."[17]

Attribute		*Description*
Stream type:	Selling	The main type of generating income is by selling the products.
	Transaction cut	A second way of gathering revenue is by the delivery fees. Ocado uses a More complicated way for calculating the height of the delivery fee: The charge may vary based upon the delivery address and depending on the day and time of the slot. Charges can change from week to week, relative to demand. If the order is greater than £75 we may offer free delivery on quieter slots. Orders of less than £75 may be subject to slightly higher charges, which may also vary by time and by day.
Price method	Market	The product prices are market orientated. The company uses the same prices as Waitrose.
Turnover		£350 million (2007)
Number of order	Per day	12,000
Average order		£100,-
Profit / losses	2006	£43,1 million loss (£7 million EBITDA profit)
	2007	£30 million loss (£7,1 million EBITDA losses)

[16] http://corporate.ocado.com/media/media_pack.pdf
[17] http://www.guardian.co.uk/business/2008/jul/21/supermarkets.retail

Peapod.com

Pillar 1: Products

The value propositions of Peapod are home delivery of groceries and recipes. The home delivery of groceries includes the effort of a personal and a business page. There are about 8.000 products available on the website. Most of these products are groceries.

Building block 1: Value Proposition

Just like the other online grocers, Peapod's main value proposition is delivering groceries at home. Peapod was the first online grocer in the US and so is the oldest still active online grocer in the country. The main reason why customers are using this service this service is saving time and the easiness of shopping. Peapod has a different price strategy than the other online retailers. The company is part of the Ahold network, with the formulas Stop&Shop and Giant. Together with the own Peapod DC, the company is using three different price strategies. The prices level of the Peapod is the highest, followed by Peapod by Giant. The already high prices have to be raised with the delivery fees, which are between $6,95 and $9,95.

Attribute	*Description*
Reasoning:	(Effort) Peapod provides a service that makes shopping easier and saves the customer time.
Value level:	(Me-too) Worldwide there are several companies who deliver groceries on a similar way and with a similar website. There are not much additional products and the overall service is similar to its competitors. The company is not very special in comparison to other online grocers in the US from a customer point of view.
Total prices	(high end) The product prices differ between the different supermarkets, but the delivery fees are the same. Peapod is targeting the high-end of the market. The delivery fees are between $6,95 and $9,95. Together with the rather high products prices Peapod can be labelled on high-end.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

Pillar 2: Customer Interface

The customer interface of Peapod is just like the other grocer divided into the building blocks target customer, distribution channel and relationships.

Building block 2: Target Customers

The target customers are working couples, families with children and businesses. The company aims at the high-end of the market, because of their prices strategy.

Target group	*Type*	*Definition*
Target group 1	Working couples	Working couples are often time-starved people. They both work a lot and have to shop in the evening or at the weekend. These people do make more money and are willing to pay more for their groceries.
Target group 2	Families with children	For many parents with small children shopping can be disaster. So ordering the groceries from your own home can be a good solution for these parents. Ah.nl has several products special for small children.

Target group 3	businesses	The first choice a customer has to make is between 'groceries for your home' and 'groceries for your business'. For businesses a different delivery fee is charged.	 Groceries for Your Home  Groceries for Your Business

Building block 3: Distribution Channel

The marketing is mainly based on local marketing. The marketing was done in the local stores and local news papers. The company also made a TV commercial. This commercial was shown on TV in a small number of states.

Building block 4: Customer Relationships

Customer equity	*Description*
Acquisition	Peapod is the oldest online grocer in the US. In the areas were Peapod delivers they already have build up a good name. This is a first hurdle Peapod has taken and won. A second step is to convince people that online grocery shopping is a good alternative option for conventional shopping.
Retention	Retaining customers is a difficult operation. With a personal page, a bonus card and a number of offers per week they try to keep all the customers.
Add-on selling	With a recipes and offers the company tries to promote add-on selling. The company had not a lot of additional products (furniture, electronics etc.) next to the groceries.

Mechanism	*Description*
Personalization	Each customer has the possibility to go to a personal page when they logged in. On the personal page previous orders and products are displayed. Customers can now find and order their products faster. The bonus card
Trust	
Brand	Peapod makes use of the established retaining formulas of Ahold; Stop&Shop and Giant. This includes their private brands.

Pillar 3: Infrastructure Management

The operational infrastructure of Peapod is in a number of ways unique. They are the only online grocer to use warerooms with different retail formulas. Besides that, Peapod also uses a dedicated fulfilment center in the Chicago areas. The distribution of the orders is directly from these warerooms or from the DC. Also the used time slot is unique, because of its flexibility and the value days.

Building block 5: Value Configuration

Peapod uses a unique concept of picking the orders. They only use the so-called warerooms. The local approach seems to work well in the US. The company also stimulates customers to choose a specific time for the order delivery by introducing discounts.

Warerooms and local distribution

Peapod delivers the groceries from supermarkets. A large advantage is that the delivery lines are already available. The company build a special 'wareroom' next to the Stop&Shop or Giant store were the online order are picked. In two areas, Washington DC and Chicagoland, they use larger, more automated DCs. In

the warerooms, a small number of conveyor belts are available, but the order pick process is still mainly manual.

Flexible time window
It is not possible for all areas to choose all delivery times. Densely populated areas have more available choices than thinly or rural areas. The conventional time window is divided into 2-hour blocks. For every area, a cheaper and wider time slot is available. Instead of the 2-hour slot, the groceries will be delivered in a 3 or 4-hour slot. In a large number of areas, there is even a special value day, which can save the customer $1 to $3 per order.

Building block 6: Capabilities

Peapod is the oldest online grocer is this research. This knowhow and experience from Peapod in combination with the Ahold groceries knowhow completes an important capability.

Capabilities	*Subject*	*Definition*	*Resource*
Capability 1	Know-how about online groceries	Peapod is the oldest online grocer in the US. They have gained a lot of experience in the past and have increased it more with the overtaking by Ahold.	Human
Capability 2	Distribution lines available	The planning system, delivery system to the supermarkets are already available from Stop&Shop and Giant. For the DC's they use a different supply line.	Intangible
Capability 4	Access to large product range	The company can make use of the existing product ranges of the retail formulas.	Tangible
Capability 5	Ability to catch start losses	The company went almost bankrupt in the year 2000. Now they are part of the Ahold family, which gives them the advantage to catch loses.	Intangible

Building block 7: Partnership

In the period 1989 – 2000 Peapod was an independent company. It had several different partner supermarkets. Since 2000 the company is part of Ahold and can make use of their network with Stop&Shop and Giant store. The most important partner at this moment is Ahold:

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
- Strategic importance: 5
- Degree of competition: 4
- Degree of integration: 4
- Substitutability: 1

Pillar 4: Financial Aspects

The average order is about $145 and it is possible to get the groceries delivered in four hours after ordering. Peapod has managed to become profitable in four of five markets in 2003.

Building block 8: Revenue model

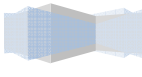
Turnover	?
Delivery fee	$5-10
Profit – losses	profit
Order size	$100

Peapod does not use one price line, but three. The Stop&Shop, Giant and their own DC all uses different prices, were the DC areas are significantly more expensive. The reasons for this may be that the distribution method is more expensive and there is not a purchase advantage like the two retail formulas of Ahold have.

Peapod is generating revenue by selling groceries and charging a delivery fee. The delivery fees are:
For orders over $100.00 the delivery fee is $6.95
For orders less than $100.00 the delivery fee is $9.95
The minimum order amount is $50.00.

Building block 9: Cost Structure

The costs of the company are not published. The company had invested in existing locations of Stop&Shop and Giant. They have created wareroom in these locations. This investment will be large at the startup, but not as large as building or buying a new location. The operational advantages will be larger too. Ahold bought the company in 2001 for about $100 million.



Webvan.com

Pillar 1: Products

This pillar includes all aspect that a company offers to its customers. This includes the total service of delivering groceries.

Building block 1: Value Proposition

The value proposition for Webvan is delivering groceries at home. The company did not only deliver traditional grocery products, but also non-grocery products. In 2000 they start to offer consumer electronics, as well as video games, movies and music[18]. The company had about 20,000 products.

Attributes	Home delivery of groceries
Reasoning:	(Effort) Webvan provides a service that makes shopping easier and saves the customer time.
Value level:	(Me-too) Worldwide several companies deliver groceries on a similar way and with a similar website. There are not additional products and the overall service is similar to its competitors.
Price level:	(high end) The product prices were relative high in comparison to other US grocery stores.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

Pillar 2: Customer interface

The customer interface of Webvan is different than the other online grocers. The target customers are described as a reason why they would shop at an online store. This is a different approach than most others, who describe customers more in demographical groups. The company also spends a lot of money on marketing. This is explained in the building block Distribution channel. The last building block is the building block Relationship.

Building block 2: Target Customers

The target market of Webvan were new technologists, time starved shoppers and price insensitive shoppers. Especially the new technologists may have been over estimated. Customers must be technology-orientated and very knowledgeable with the internet. Not very much people had these skills or had even internet in the year 2000.

Target group	*Type*	*Definition*
Target group 1	New technologists	This group of people is always looking for the newest inventions in all different kinds of markets.
Target group 2	Time starved people	Time starved people can be families with children, working couples or singles.
Target group 3	Price insensitive shoppers	Price insensitive shoppers are not interested in the prices of the products. They are just interested in the quality and service. This group can often be classified as high end.

Building block 3: Distribution Channel

The marketing was one of the most expensive costs of Webvan. Nobody knew the name Webvan, so the initial marking costs were very high. The company started with a large TV campagne. The IPO also helped by making the company known for a larger group of people.

[18] http://news.cnet.com/Online-grocer-Webvan-taps-into-consumer-electronics/2100-1017_3-241428.html

Building block 4: Customer Relationships

Customer equity	*Description*
Acquisition	Webvan tried to acquire customers in a number of states in the US. Acquisition was the main function for the company, because it began from scratch.
Retention	Retaining customers is a difficult operation. With a personal page and a number of offers per week they try to keep all the customers.

Mechanism	*Description*
Personalization	Each customer has the possibility to go to a personal page when they logged in. On the personal page previous orders and products are displayed. Customers can now find and order their products faster. The bonus card
Trust	
Brand	Peapod makes use of the established retaining formulas of Ahold; Stop&Shop and Giant. This includes their private brands.

Pillar 3: Infrastructure Management

Building block 5: Value Configuration

Webvan uses highly sophisticated warehouses to collect the orders.[19] Heavier, larger ambient items are larger items, the crates are put onto a belt conveyor. Smaller, lighter ambient items are picked from carousels. While the carousels rotate, the terminal tells the order-picker which locations to pull from and in which tote to place the picked items. Each order-picker pulls from multiple carousels so that one can rotate while the other halts for a pick or restock.

In Oakland, California the company had build the first automated warehouse. Besides that, there were twelve transhipment centers (Customer Fulfilment Centers; CFC) to distribute the orders in surrounding areas. Webvan uses a hub-and-spoke model for delivering the groceries. Webvan estimated that each employee could pick grocery items to an order list at a rate of 450 items / hour (Delaney-Klinger et al. 2003). If this if true they were 20 times more efficient than conventional customers are. The warehouse has a size of 336.000 square feet (32.000 square meters) and costs $35 million.

Webvan had an own delivery service. The company used a hub-and-spoke model for the delivery of the groceries first, the orders were picked in one of the 4 DC's. The next step is that large trucks transported the groceries to one of the docking station. Smaller trucks deliver the groceries to the customers. Each household had to be in a 10 mile radius from the docking station. The company used a 30 minutes time window and was able to achieve this quite well. This was possible for 7 days a week. The company also tested with a same day delivery service. Webvan says same-day delivery is one of the most required services from customers[20]. The company only offered this service to their most loyal customers.

Building block 6: Capabilities

The founder of the company has a lot of experience with ecommerce. He was the founder of a nationwide online bookstore.

Capabilities	*Subject*	*Definition*	*Resource*
Capability 1	Experience about online stores	The founder was a very successful business-man. He had a successful online book store, which made him a reliable person to invest in.	Human
Capability 2	Good network	The founder had build up a good network in his	Intangible

[19] http://www2.isye.gatech.edu/~jjb/wh/sites/Webvan/Webvan.html
[20] http://www.internetretailer.com/internet/marketing-conference/82256-webvan-tests-same-day-delivery-seattle.html

		previous business.	
Capability 3	Large product range	The company mad contracts with large suppliers for in total 20,000 products.	Tangible
Capability 4	Ability to catch start losses (for a short period)	The company could raise a significant amount of money from informal investors and banks. They also completed an IPO for $15 per share.	Intangible

Building block 7: Partnership

The funding of this company was not that easy. By April 1999, the company had attracted $120 million from high-profile backers such as CBS inc., Knight-Ridder Co., Softbank Co. of Japan, as well as Benchmark capital and sequoia Capital, two leading venture capital firms. By July 1999 Webvan raised an additional $275 million by selling a 6,48% stake to Goldman Sachs & Co., Softbank Co. and Sequoia Capital. On November 5, 1999, the company managed to raise an additional $400 million in its IPO.[21]

The most important partners are its financial partners. These were necessary to make the company possible. The suppliers of the products were also important, but not necessary to start the business. Webvan made its own agreements with these wholesales of producers of the products. A disadvantage is that with a small economy of scale the purchases of these products were quite high. If the company could use an existing network, the product prices would be a lot lower.
Another group of 'partners' were the people who bought the stocks of Webvan. They provided the company with $400 million. This money was spent rapidly and what would turn up later, not spend on the right things.

Suppliers

- Reasoning: optimization and economies of scale, reduction of risk and uncertainty, acquisition of resources
- Strategic importance: 1
- Degree of competition: 0
- Degree of integration: 2
- Substitutability: 4

Pillar 4: financial aspects

The financial aspects of Webvan are published, because it was quoted on the stock exchange. This gives us a clear view of how badly it went with Webvan. Especially the costs were enormous in comparison to the established turnover.

Building block 8: Revenue model

Delivery was free for order over $75 and cost $4,95 for order under $75. The minimum order size was $50. The average order size was $112 in the 4th quarter of 2000.

[21] George Anders, "Co-founder of Borders to launch online megagrocer," The Wall Street Journal, April 22, 1999.

Webvan (x1.000)	*Q1 00*	*Q2 00*	*Q3 00*	*Q4 00*	*Q1 01*
Net sales	**$16.269**	**$28.300**	**$52.057**	**$84.191**	**$77.234**
Cost of goods sold	$12.138	$20.305	$37.509	$61.283	$55.559
Gross profit	**$4.131**	**$7.995**	**$14.548**	**$22.908**	**$21.675**
Gross margin	25,4%	28,2%	25,8%	27,2%	28,1%
Operating expenses					
Sales & Marketing	$8.359	$9.907	$13.990	$19.225	$16.276
Development & Engineering	$5.523	$5.465	$8.176	$6.352	$6.015
General & Administrative	$38.993	$57.890	$77.887	$110.582	$88.168
Amortization Goodwill intangibles			$13.962	$49.432	$47.812
Amortization deferred compensation	$17.720	$16.774	$13.137	$7.542	$9.219
Restructuring charges			$40.810		$73.859
total operating expenses	**$70.595**	**$90.036**	**$167.962**	**$193.133**	**$241.349**
Interest income (expenses)	$8.649	$7.678	$5.441	$4.134	$2.702
Proforma Net (Loss)	**- $57.815**	**- $74.363**	**- $147.973**	**- $166.091**	**- $216.972**

This table makes clear how badly it went with Webvan. The company reported a loss in just one quarter of $216 million.

Building block 9: Cost Structure

In the table above the operational costs are displayed. The largest part of the costs was generated by the general & administrative costs. In two quarters restructuring costs were accounted for the reorganization of the company. The costs were in general excessively higher than the gross profit. This resulted in a loss of $216 million in the first quarter 2001. In total, the company spent $1,2 billion since the beginning of the business.

Leshop

Pillar 1: Products

Building block 1: Value Proposition

The value proposition Leshop delivers to the customer is picking and delivering groceries to their homes. More specifically, Leshop offers the customer a portal to order groceries and other products and picks them for the customers. The company outsourced the distribution. In 2008, Leshop offers 9,000 different types of products. They do not only offer the daily groceries, but also electronics, toys, flowers, jewellery and so on. During the shopping, the customer can listen to the Leshop radio channel; Leshop FM radio. An addition service is the recipes section. The website offers a large number of recipes, with a good description of the ingredients and a links to order the ingredients. A unique feature is the recipes by Pod cast. It is possible to download the recipes on an Ipod and listen to the recipes while cooking.

Attribute	
Reasoning:	(Effort) The company delivers a service for the customers.
Value level:	(Innovative innovation) The company delivers not only the traditional groceries, but also a number of additional product ranges. The delivery method is also different than the other online supermarkets in this research.
Price level:	(high-end) The product prices are similar to the prices in the Migros stores, with additional the delivery charges.
Life cycle:	(value purchase) The main value happens when the groceries are purchased. Purchasing does not only mean the buying of the groceries, but also the complete fulfilment of the service. This includes correct delivery, on the agreed time and on a correct way.

Pillar 2: Customer Interface

Leshop is the market leader in the online grocery branch in Switzerland. They have acquired this position by listening to what the people in Switzerland wants. This is translated in their corporate vision:

> *"We aim to maintain our leading position on the Swiss on-line food market. In this respect, the strategic partnership with Migros, the Swiss food retailer No 1, is particularly important, allowing the creation of a unique assortment containing Migros products as well as brands. Teaming up with different partners, we continue to evolve towards an on-line shopping mall offering much more than groceries: leisure and hobbies, entertainment and services will play a major role in the future."*

Building block 2: Target Customers

The target customers are Young families and professionally active people. The company has 46.500 regular customers.

Target group	*Type*	*Definition*
Target group 1	Young families	Families with children do not have much time or simply do not like to shop with their children.
Target group 2	Professionally active people	Working people are often time-starved people. They work a lot and have to shop in the evening or at the weekend. These people do make more money and are willing to pay more for their groceries.

Building block 3: Distribution Channel

Leshop is using national news papers and TV commercials as their main marketing tool.

Building block 4: Customer Relationships

Customer equity	*Description*
Acquisition	Leshop has already built a large group of steady customers during their existence. The takeover by Migros will help to acquire more customers, because of the brand name.
Retention	Retaining customers is a difficult operation. With a personal page and a number of offers per week they try to keep all the customers.
Add-on sales	When customers keep coming back to Leshop, the company will try to sell more additional products to these customers.

Pillar 3: Infrastructure Management

Building block 5: Value Configuration

The order pick method is semi-automated. Employees have to pick the larger products manually in a basket on a trolley. When the these larger products are picked, the basket is will be placed on a conveyor belt. Now the smaller products are picked till the order is ready.

Figure 7.3: order picking at Leshop

The distribution is in completely outsourced to the companies Von Bergen SA and La Poste Suisse and Eismann. The express service of La Poste Suisse delivers the groceries between 17.00 and 20.00 hours. The customers have not the possibility to choose the desired delivery time. Daily deliveries from Monday through Friday between 5 pm and 8 pm for orders placed the previous day before midnight. Delivery on Saturday morning for orders placed on Friday before 3 pm.

Building block 6: Capabilities

Many of the capabilities are 'bought in' by Migros. Migros is the supermarket market leader and has a large distribution network and a widely known brand name.

Capabilities	*Subject*	*Definition*	*Resource*
Capability 1	Know-how about (online) groceries	The knowledge of Migros the knowledge of the founders	Human
Capability 2	Distribution lines available	The delivery system to the supermarkets is already available from the Migros stores.	Intangible
Capability 3	Brand name	Leshop has the advantage of using the brand name of the Migros chains after the takeover. In the website, the names of the retailer are visible. Each location is nearby the customer, because it is from the nearby store.	Intangible
Capability 4	Access to large product range	The company can make use of the existing product ranges of Migros. They also have agreements with a number of other retailing formulas (see Partnership)	Tangible
Capability 5	Ability to catch start losses	The company is almost entirely (95%) part of retailer Migros.	Intangible

Building block 7: Partnership

The partners of Leshop are Migros, PostLogistics (La Poste Suisse), Von Bergen SA, Eismann and Celebros. Migros is also the main financial partner with a total share of 90,5%. The remaining 9,5% are In the hands of the initial shareholders.

The strategic partnership with Migros has allowed LeShop.ch to become the biggest Swiss on-line shopping center. The assortment is unique in Switzerland, combining branded articles and Migros products at Migros prices. The synergies from the powerful alliance increases the on-line supermarket's position and confirm its leading role in Swiss on-line retailing.

The relationship transportation partners may be the most important success factor of the company. PostLogistics is the partner for the home delivery of the ordered goods. From the PostLogistics distribution centers, the orders are delivered right to the customers' doors. Transportation from the orderpick center in to the distribution centers is handled by the company von Bergen. The transport company von Bergen picks up the ordered goods at the logistics center in Bremgarten and transports them in refrigerated lorries to the PostLogistics distribution centers. They are then taken in charge by PostLogistics for delivery to the customers' doors.

The European frozen foods specialist with over 30 years' experience is our partner for the supply and distribution of frozen products: the company provides our customers with pizza and ice cream, fish and French fries, vegetables and ready meals, bread and cakes. eismann is the leader of frozen goods home deliveries throughout Switzerland: over 3'500 households visited daily!

Pillar 4: Financial aspects

Leshop does communicate their turnover, but does not release profit figures[22].

Building block 8: Revenue Model

The revenue increased rapidly in the last couple of years. In 2004 Migros took over Leshop and combined the company with Migros-online. The prediction in 2008 is a more conservative in comparison to the three previous years. The current credit crisis can be an important factor.

The company does not only generate not only money by selling groceries, but also by charging a delivery fee. The fees differ: 7.90, 10.90, 13.90 or 15.90 francs per order, depending on the order value and frequency.

Building block 9: Cost Structure

Leshop has two Distribution centers. One center opened in 2008 and increased the geographic area.
In February 2008, the company had 179 employees, mainly for picking the orders. The distribution is done by external partners.

Year	Turnover (in CH francs)	%
1999	4 million	
2000	6 million	+50%
2001	11.5 million	+92%
2002	12.8 million	+11%
2003	15.2 million	+19%
2004	32.6 million	+115%
2005	47.1 million	+44%
2006	64.5 million	+37%
2007	92.3 million	+43%
1st -3rd term 2008	82.2 million (109,6 million*)	+19%

* = extrapolated to a whole year

[22] http://www.swisster.ch/en/news/business/amazon-sounds-out-booming-swiss-online-grocery-retailer_116-611874

7.3 Appendix 3: total view of attributes

	AH.NL	MAXFOODMARKET	TESCO	OCADO	WEBVAN	PEAPOD	LESHOP
GENERAL INFORMATION							
country (main market)	Netherlands	Netherlands	Great Britain	Great Britain	United States	United States	Swiss
establish date	approximately 1980	1999	2000	2000	1999	1989	2000
active / bankrupt	active	bankrupt	active	active	bankrupt	active	active
takenover in the past	no	no	no	no	no	yes	yes
unique selling points / features	part of large supermarket network good brand name	same day delivery free delivery	large existing network good brand name	highly sophisticated warehouse large number of informal investors	unique order pick system (carrousel)	large network with supermarkets warerooms	external partner for delivery part of large retailer
Deliver areas	75% of Netherlands	Leiden Utrecht Haarlem	98% of UK	60% of UK	West coast US	East coast of US	90% of Switserland
Internal competitors	(till 2002 one, now none)	yes (ah.nl)	number of large competitors	number of large competitors	view competitors	view competitors	view competitors
Pillar 1: PRODUCT	first entry on market	not first	first entry on market	not first	first entry on market (west coast US)	first entry on market (east coast US)	first entry on market
Value proposition							
Home delivery	X	X	X	X	X	X	X
Additional products			X				
recipes	X		X	X		X	X
pickup service							
Same day delivery		X					
Personal page	X	X	X	X	X	X	X
business area	X					X	
Reasoning (home delivery)	effort	effort	effort	effort	effort	effort	effort
Value level (4 point scale)	me too	excellence	innovative innovation	me too	me too	me too	innovative innovation
Price level (4 point scale)	high-end	economy	high-end / market	high end	market	high-end / market	market
Pillar 2: CUSTOMER INTERFACE							
Target customer							
level of customer	upperclass	everybody	upper class, increasingly working class	upper class	upper class	upper class / working class	upper class
business vs. consumer	% businesses: 35%	% businesses: 10%					
	% consumers: 65%	% consumers: 90%		-	-		-
Distribution channel							
	national flyer	free media	direct marketing (stores)	nationwide advertising	local advertising	local marketing	national news paper
	website	local news papers	TV commercials	TV commercial	TV campagne	marketing in the stores	TV commercials
	AH stores	website	website	website	website	TV commercials	website
	Periodic flyers added to the order			free media / publicity		website	
	TV commercial						
	Online News letter						
	Sponsoring						
Customer relationship							
Customer equity	acquisition / retention	acquisition	acquisition / retention / add-on sales	acquisition / retention	acquisition / retention	acquisition / retention	acquisition / retention / add-on sales
Function	trust / brand	trust	personalization / trust / brand	personalization / trust	trust	trust	trust
Pillar 3: INFRASTRUCTURE MANAGEMENT							
Number of capabilities (capability)							
	existing distribution network internal retail knowledge ability to catch losses brand name access to large product range	access to large retail assortment fast delivery of orders supermarket experience	existing distribution network existing locations existing retail knowledge ability to catch losses brand name	access to large retail assortment large financial network ability to catch losses management knowhow	knowhow about online grocery distribution lines available access to a large product range	access to large assortment experience in the online grocery branch ability to catch losses (for a short period)	access to large assortment knowhow about (online) grocery market distribution lines available brand name ability to catch losses
Configuration							
type online grocer	supermarket	pure play	supermarket	pure play	pure play	hybrid	hybrid
part of supermarket chain	yes	no	yes	no	no	yes	yes
type order picking	large DC	small DC	supermarket + local DC	large DC	large DC	warerooms + large DC	large DC
change in method?	For supermarket to Dc	no	additional DC	no	no	from large DCs to warerooms	no
type distribution	hub-and-spoke	from dc	from supermarket	hub-and-spoke	hub-and-spoke	from warerooms	external
lead time delivery	next day	2 hours	next day	next day	next day; test with same day	next day	next day
assortment size	10.000	5.000	22.000	13.000	10.000	8.000	7.000
Partnership							
partners	Albert Heijn	Jumbo supermarkets informal investors	Tesco	Waitrose informal investors	independent suppliers informal investors	Ahold network stop&shop + giant	Migros Eismann Swiss Post (express) informal investors
Strategic importance	5	2	5	4	1	5	4
Substitutability	2	1	1	4	0	3	2
Degree of competition	5	4	5	4	2	4	4
Degree of integration	0	2	0	2	4	1	1
Pillar 4: FINANCIAL ASPECTS							
Revenu model							
streaming type	selling	selling	selling	selling	selling	selling	selling
selling	transaction cut		transaction cut	transaction cut	transaction cut	transaction cut	transaction cut
profit / loss	loss	loss	profit (£124 million)	loss*	loss	profit	loss*
Turnover	€107 million (2007)	€20 million (2001)	€1,1 billion (2007)	£350 million (2007)	$180 million (2000)	???	92,3 million fr
delivery fees	€4,95 - €9,95	free	£4,00 - £6,00	£3,00 > £75 free	$5,00 > $75 free	$6,95 - $9,95	7,90 fr - 15,90 fr
average order size	€ 130	€ 100	£110	£105	$112	$145	217 fr
Number of orders per period							
Costs							
Start investments							

7.4 Appendix 4: interview Ah.nl

Interview albert.nl (C. van Neeve: manager Ecommerce en MT lid Albert.nl)

Albert.nl is in 2001 opgericht. Hiervoor bestond de webwinkel van albert.nl al, maar werd er vanuit filialen aan de klant geleverd. De bestellingen kwamen binnen bij de vestigingen en werden daar in de winkel bij elkaar gezocht. De redenen voor de overstap naar het distributiecentrum model is drieledig, namelijk:

1. Het was een te grote belasting voor filialen
2. Het serviceniveau was te laag
3. AH wilde alles onder 1 'paraplu'

    1) In eerste instantie was het supermarkt model een goed model. Dezelfde producten als in de winkel konden worden aangeboden en grote investeringen, zoals inventaris en gebouwen waren niet nodig. Een groot 'nadeel' was dat het online bestellen van boodschappen in sommige regio's zo populair werd dat supermarkten het niet meer konden bolwerken. Daarnaast was het lastig in te schatten hoe groot de voorraden moest zijn in de winkel. Winkelende klanten kopen uiteraard ook producten, waardoor producten niet altijd op voorraad waren als deze gepickt dienden te worden. Een gevolg hiervan is een slechte service graad.
    2) Omdat de producten niet altijd op voorraad waren, konden de bestellingen vaak niet compleet worden bezorgd. Voor de overstap naar albert.nl werd een percentage van 80% van de bestelling correct en compleet bezorgd. Dit was uiteraard te laag voor AH. Ook was het personeel van de verschillende vestigingen niet over even gemotiveerd om het werk goed te doen. Dit kan voor een nieuwe service ook fataal zijn. Tegenwoordig is het voorraadbeheer realtime; er is zichtbaar welke voorraad er nu is, wat is tot dusver is besteld en welke bestellingen al zijn geplaatst. Als er geen producten meer aanwezig zijn kleur het product op de website automatisch grijs, waardoor het product voorlopig niet meer besteld kan worden. De klant weet dan dat deze een alternatief product zal moeten zoeken.
    3) Tot slot wilde AH meerdere retailformules onder één 'paraplu' hebben. Deze formules waren in eerste instantie Albert Heijn, Gall&Gall, Etos, De Tuinen en DeliXL. De laatste 2 zijn in de loop der jaren verkocht door Ahold. De overige formules zij n nu nog steeds te vinden onder de webwinkel paraplu.

Het aantal bestellingen per route is gemiddeld 14,5 bestellingen per route. In dichtbevolkte gebieden is dit 20 bestellingen. Een gemiddelde bestelling heeft een omvang van 67 artikelen en een waarde van €130. Dit zijn gemiddeld 5 kratten (vouwkratten en/of bierkratten). Klanten wonen gemiddeld 4 km uit elkaar. De bestelauto's waarmee bezorgd word is een extra belemmering voor het aantal bestellingen. De auto weegt ongeveer 2000 kg. Ze mogen maximaal 3500kg wegen ivm rijbewijs B (er rijden vooral studenten op met alleen rijbewijs B). Dit beperkt het aan bestellingen ook. Het planprograma is hierop aangepast (maximaal X aantal bestellingen).

De leadtime voor een bestelling is minimaal 16 uur. Leadtime: tijd tussen plaatsen bestelling en bezorging bestelling. Een klant is gemiddeld 15 tot 20 minuten aan het winkelen op de site.
Albert.nl ziet zichzelf niet als onestop-shop. Het assortiment bestaat wel uit 10.000 artikelen, maar Ah vestigingen hebben gemiddeld 20.000 artikelen.

De bezorgdrempel van €60 (verhoogd vanaf €50) is gedaan om een zo hoog mogelijke bestelgrootte te krijgen. Omdat de marge per product vaak laag zijn worden er vaak grootverpakkingen aangeboden. Een voorbeeld is niet 1 blikje tomatenpuree, maar minaal 5 blikjes. Dit is anders dan in een AH vestiging. Bij een concullega 'Le Shop' uit Zwitserland doen ze dit met veel meer producten, zoals met frisdrank.

65% van de bestellingen wordt door consumenten geplaatst. 35% door bedrijven. Globaal kunnen deze bedrijven worden ingedeeld in drie verschillende groepen, namelijk: Zorg (woon- / zorgcentra), kinderdagverblijven en MKB bedrijven (kleine bedrijfskantines).

Er is sprake van kannibalisatie bij de AH vestigingen, maar dit is vrij minimaal. Er worden immers ook klanten van overige formules aangetrokken.
De website is ook niet echt bedoeld om te winkelen. Klanten kopen vaak dezelfde producten. Deze zijn dan ook via een persoonlijke lijst te vinden. De bonuskaart gegevens zijn tevens op te vragen. Voor producten die niet wekelijks gekocht worden kan de klant door de website zoeken. Het is dan ook niet het doel om een

online supermarkt te maken voor iedereen. Het is de doelstelling dat snel gewinkeld kan worden. De doelgroep hiervoor zijn dan ook tweeverdieners en gezinnen met kinderen.

De omschakeling van Albert.nl naar AH.nl heeft voor de onderneming weinig gevolgen. De 3 sterke merken AH, Gall&Gall en Etos krijgen weer een eigen webwinkel. Albert.nl is altijd AH geweest volgens veel mensen, waardoor de overige 2 merken ondergewaardeerd werden. De naam albert.nl blijft wel, maar dit is slechts de logistieke tak.

Albert.nl geeft aan dat ze operationeel bijna break-even spelen, overigens net als bijna alle vergelijkbare online supers. Het is wel een feit dat de investeringskosten niet op korte termijn zullen worden terugverdiend. Albert.nl geeft dan ook aan (tussen de zinnen door) dat het zonder moederbedrijf Ahold niet meer had bestaan.

Een mogelijkheid voor albert.nl om in meerdere gebieden actief te zijn is om meer overslaglocaties te openen in andere gebieden. Er zullen geen extra Dc's worden geopend.

Op de vraag of de overgang naar het DC model niet te vroeg was werd met twijfels gereageerd. Het is lastig om dat je de andere situatie niet kent, maar een goed antwoord was niet te geven. Hij gaf wel aan dat ze voor ¾ in de internethype zaten wat de keuze voor het Dc model wel mede heeft bepaald. Daarnaast het feit dat ze binnen een jaar een van de drie Dc's hebben gesloten geeft toch wel iets aan dat ze misschien iets te vroeg hiermee zijn gestart. Aan de andere kant moest er wel iets gedaan worden aan de kwaliteit van de service van de filialen. Dit is dan ook een van de belangrijkste redenen geweest voor de overstap.

7.5 Appendix 5: Interview Maxfoodmarket

Interview Maxfoodmarket (D. Groot, oprichter van Maxfoodmarket)

Analyse Maxfoodmarket
- Wat was het aantal medewerkers?
- Wat was de maximale capaciteit van de maxcenters?
- Wat was de gegenereerde capaciteit op het einde?

Assortiment
- Wat was de grootte van het assortiment? Was dit voldoende?
- Wat was de grootste productgroep qua verkopen?
- Werden er veel vers artikelen verkocht?

Systeem
- Waarom de hoge mate van automatisering?
- Was het achteraf de juiste beslissing om veel te automatiseren?
- Waarom DC model? Afgekeken van Webvan?

Bezorging / logistiek
- Zelfde-dag-levering in tegenstelling tot de levering van de volgende dag?
- Heeft de zelfde-dag-levering invloed gehad op het faillissement?
- Was het te ambitieus om een zelfde-dag-levering zonder bezorgkosten uit te proberen?
- Wat was het bereik van de maxcenters?
- Hoeveel bestellingen zijn mogelijk per route?

Segmentatie
- Wie waren de belangrijkste klanten?
- Wat was de doelgroep?
- Wat was de positionering van Maxfoodmarket?
- Welke marketing werd toegepast?
- Hoe belangrijk was de website?

Er waren op het moment van faillissement 440 medewerkers in dienst. Er waren 3 locaties, namelijk in Haarlem, Leiden en Utrecht. Het merendeel van deze medewerkers bestond uit parttime banen, voornamelijk studenten. Deze zijn goedkoop, kunnen snel werken en hebben weinig inwerktijd nodig. De maximale capaciteit van de Maxcenters was 3.500 orders per week per locatie. Op het moment van faillissement werd een gemiddelde behaald van 4.800 orders per week. Dit komt neer op een 45% benuttig van de capaciteit. De gemiddelde ordergrootte bedroeg tot ongeveer €80 euro, bij een minimale ordergrootte van €35 euro.

Het assortiment bedroeg bij de start 3.500 artikelen, maar op het einde was dit al opgelopen tot 5.000. Het doel was om in de zomer van 2003 10.000 producten aan te bieden. In de zomer van 2002 was het bedrijf al begonnen met het aanbieden van kantoorartikelen, zoals pennen, nietmachines en dergelijke. Dit zijn producten die gemakkelijk op voorraad kunnen worden gehouden en met een hogere marge verkocht kunnen worden. De producten die het meest verkocht werden zijn frisdranken en bieren. Hier is de 80/20 regel van toepassing. Ongeveer 80% van de omzet werd gegenereerd door deze producten. De overige 20% werd gegenereerd door de overige producten. Het grootste gedeelte van deze overige producten bestond uit versproducten. Deze werden elke dag vers geleverd.

Mede omdat de markt zo snel zou gaan groeien was het verstandig om vooruit te gaan kijken naar nieuwe technologie. De technologie die gebruikt is, werkte goed en heeft ervoor gezorgd dat bijna alle orders correct waren. Ondanks de grote investering blijft het een goede keuze om te automatiseren. Vandaag zou deze technologie nog maar een fractie kosten, maar deze is nog steeds goed toe te passen. De investeringen lagen toen omgerekend rond de €2,5 miljoen, alleen voor de software. In totaal is er €14,5 miljoen geïnvesteerd in het bedrijf. De DC methode is een goede methode, omdat het picken van de orders snel kan gaan. De methode van Webvan is niet mogelijk in Nederland, ook niet in een kleinere vorm. De dichtheid en het aantal inwoners is niet groot genoeg.

Het leveren van producten op de dag zelf was revolutionair. Dit werd, en nog steeds niet, nergens gedaan in de wereld. Zeker niet het leveren na slechts 2 uur. Dit was het paradepaardje van het bedrijf en heeft naar mijn mening alleen maar bijgedragen aan het (korte) succes van de onderneming. De doelstelling was om in het begin van 2003 een bezorgtarief in te voeren voor orders onder de €80 euro. Deze zou €2,75 bedragen. Naar verwachting zal ongeveer 1/3 van de klanten hierdoor worden afgeschrikt en wegblijven. De gederfde winst moet worden opgevangen met de ingevoerde bezorginkomsten. De bezorging gebeurde met kleine bezorgauto's. Iedere auto kon maximaal 5 orders bezorgen, maar dit werd meestal niet gehaald. Ieder uur reden er een of meerdere auto's weg voor het bezorgen. Dit kwam door de keuze om een bestelling na 2 uur na bestellen te kunnen bezorgen.

De belangrijkste groep klanten bestond uit de 'boven-modale groep', maar daarnaast nam het aantal klanten met een modaal inkomen ook snel toe. Dit was te merken aan de soort wijken waar steeds meer geleverd werd. Ook was de service erg populair bij studenten. Bij het invoeren van een bezorgtarief zal deze groep dan ook het eerst afhaken. Maxfoodmarket heeft als doel om iedereen te kunnen bedienen, maar het meest aannemelijk is dat de klanten met een boven modaal inkomen de grootste groep zullen blijven.

Voor marketing heeft het bedrijf vooral 'free media' gebruikt. Er is via een uitgebreid netwerk gepromoot. Er zijn gratis advertenties geplaatst in lokale weekbladen en zondagskranten. Daarnaast zijn er diverse TV optredens geweest om de onderneming te promoten. Daarnaast werden er wekelijks folders verspreid. De website was toentertijd behoorlijk modern. Als een product niet voorradig was kon de klant dit meteen zien. Er werden vervolgens een vervangend product -voorgesteld. Voor de lay-out was toen weinig te doen. Internet was pas net in opkomst en de technologie was nog niet zover om de website er heel mooi uit te laten zien. Het was vooral een functionele website.

Na het gesprek met de Groot heb ik de handouts van een PowerPoint presentatie ontvangen met diverse data over Maxfoodmarket.