

Applying Gartner's Hype Cycle on the Health Food Industry An analysis of growth opportunities

Master of Science Thesis in the Management and Economics of Innovation Programme

ANNA TEIWIK JOHANNA YDERGÅRD

Department of Technology Management and Economics Division of Innovation Engineering and Management CHALMERS UNIVERSITY OF TECHNOLOGY Göteborg, Sverige 2015 Report No. E 2015:036

Applying Gartner's Hype Cycle on the Health Food Industry An analysis of growth opportunities

ANNA TEIWIK JOHANNA YDERGÅRD

Tutor, Chalmers: Bengt Järrehult Tutor, company: Undisclosed

Department of Technology Management and Economics Division of Innovation Engineering and Management CHALMERS UNIVERSITY OF TECHNOLOGY Göteborg, Sweden 2015 Applying Gartner's Hype Cycle on the Health Food Industry An analysis of growth opportunities

ANNA TEIWIK and JOHANNA YDERGÅRD

© ANNA TEIWIK and JOHANNA YDERGÅRD, 2015.

Master's Thesis E 2015:036

Department of Technology Management and Economics Division of Innovation Engineering and Management Chalmers University of Technology SE-412 96 Göteborg, Sweden Telephone: + 46 (0)31-772 1000

Chalmers Reproservice Göteborg, Sweden 2015

Abstract

One of the largest trends among Swedish consumers today is the adoption of a healthy lifestyle, leading to consumers becoming increasingly interested in health food. This has in turn opened up for interesting opportunities for firms within the health food industry. However, this industry is highly influenced by consumers' shifting perceptions of what constitute health food, making the industry volatile in terms of trends that come and go, which increases the difficulty for companies in knowing where to focus their product development efforts and investments.

The purpose of this master's thesis is twofold. Firstly, it aims to identify growth opportunities within the health food industry. Since this industry is highly volatile in nature due to trends succeeding each other, the theory of Gartner's hype cycle is used in order to identify characteristics of health food that provide short- and long-term potential. Gartner's hype cycle is however usually applied on new technologies, which leads to the second purpose of this master's thesis; to investigate how Gartner's hype cycle may be applied on the less technological health food industry.

In order to fulfil the purpose of this master's thesis, this study applies a qualitative approach, which is further quantitatively supported by a survey. The research process is divided into four parts, that starts with developing a definition of the health food industry through identifying what currently characterises health food. The second part of the research process aims to position the health attributes in Gartner's hype cycle, through following the approach suggested in the hype cycle literature. This is followed by an analysis of how to interpret the hype cycle in the context of health food. Lastly, the research includes an analysis of how firms could manage hypes and trends to benefit from the identified growth opportunities.

This report concludes that the definition of health food is dynamic due to shifts in scientific paradigms, high levels of media attention and the individual nature of health. What defines health food is therefore what attributes consumers perceive as healthy at a certain point in time. The health food characteristics positioned in Gartner's hype cycle indicate on several growth opportunities, both in the short- and long term. The inherent difficulty of predicting a fad or megatrend implies that it is beneficial to invest in hypes in a small scale through for example product extensions, gaining first mover advantages while reducing risk. Characteristics in the slope of enlightenment that are more likely to become megatrends may on the other hand be incorporated into the brand strategy. The application of Gartner's hype cycle leaves some implications for the interpretation of the theory in this context. These mainly include that the health food industry is characterised by higher levels of positive and negative hype that affects the analysis, and low switching costs making the adoption pattern different from the traditional model.

Acknowledgements

We have had the opportunity to conduct this master's thesis for an investment company, and indirectly for one of their holdings operating within the health food industry. Thus, we would firstly like to extend a big thank you to our supervisors at the investment company, both for guidance throughout the process and also for giving us the opportunity to conduct this master's thesis.

We would also like to thank all our interviewees for valuable input. Especially, we would like to thank all representatives from the health food company who enthusiastically took their time to tell us about their work and answer our questions.

We would furthermore like to express our gratitude to our supervisor Bengt Järrehult for his encouragement, guidance and support during the process of writing this master's thesis. Throughout the whole process Bengt has been available to answer our questions as well as involve us in interesting discussions.

Finally, this thesis is the final step of our time at Chalmers University of Technology, Industrial Engineering and Management and the MEI programme. We would therefore also like to extend a thank you to all friends, lecturers, family and others who have been a part of and encouraged us throughout these five years.

Table of Contents

1. Introduction	
1.1 Background	
1.2 Purpose	
1.3 Research Questions	
1.4 Delimitations	
1.5 Outline of the Thesis	
2. Literature Review	6
2 1 Scientific Paradigms	6
2.2 Diffusion Curve	7
2.3 Technology S-curve	9
2.4 Gartner's Hyne Cycle	10
2.5 Relating the Diffusion Curve to Gartner's Hype Cycle	
	10
3. Method	
3.1 Research Strategy	
3.2 Research Process	
3.2.1 Definition of the Health Food Industry	
3.2.2 Positioning of Characteristics in Gartner's Hype Cycle	
3.2.3 Interpreting the Hype Cycle in the setting of the Health Food Industry	
3.2.4 Managing Hypes and Megatrends	
3.3 Data Collection	
3.3.1 Interviews	
3.3.2 Survey	
3.3.3 Secondary Sources	
3.4 Data Analysis	24
3.4.1 Interview and Secondary Data Analysis	
3.4.2 Survey Analysis	
3.5 Research Quality	25
4. Empirical Study	27
4.1 Health Food Background	27
4.2 A Brief History of Dietary Advice	28
4.3 The Nordic Nutrition Recommendations	29
4.4 Attributes Currently Defining Health Food	30
4.4.1 Consumers Driving Importance of Health Attributes	
4.4.2 Current Research on Classification of Health Attributes	
4.4.3 Survey on Classification of Health Attributes	
4.4.4 Exposure, Interest and Research on Health Attributes	
4.4.3.1 Natural Ingredients	40
4.4.3.2 Organic	
4.4.3.3 Vegetarian	43
4.4.3.4 Locally Sourced	

4.4.3.5 Fat Free/Low Fat	
4.4.3.6 Sugar Free/Low Sugar	
4.4.3.7 Low/No Salt	
4.4.3.8 Low Cholesterol	
4.4.3.9 High Protein	
4.4.3.10 High Fiber	53
4.4.3.11 Food Fortification (Vitamins)	54
4.4.3.12 Gluten Free	
4.4.3.13 Lactose Free	
4.4.3.14 GMO Free	
4.5 Trends Influencing the Health Food Industry	59
4.5.1 Macro Trends	59
4.5.2 Consumer Behaviour	
5. Analysis	62
5.1 Analysis of the Health Food Industry	62
5.1.1 Definition of Health Food	
5.1.2 Survey Analysis	
5.2 Hype Cycle Analysis	66
5.2.1 Analysis of Health Attributes	
5.2.1.1 Natural Ingredients	
5.2.1.2 Organic	
5.2.1.3 Vegetarian	
5.2.1.4 Locally Sourced	71
5.2.1.5 Fat Free/ Low Fat	
5.2.1.6 Sugar Free/ Low Sugar	74
5.2.1.7 Low/ No Salt	75
5.2.1.8 Low Cholesterol	
5.2.1.9 High Protein	
5.2.1.10 High Fiber	
5.2.1.11 Food fortification (Vitamins)	
5.2.1.12 Gluten Free	
5.2.1.13 Lactose Free	
5.2.1.14 GMO Free	
5.2.2 Short- and Long-term Growth Opportunities	
5.3 Interpreting the Hype Cycle in the Setting of Health Food	
5.4 Managing Hypes and Megatrends	90
6. Conclusion	93
7. References	

1. Introduction

The opening chapter encompasses a background to why this study was conducted, followed by the purpose of this master's thesis. The purpose is then further broken down into four research questions that this study will answer. Furthermore, this chapter will also present the scope of this master's thesis through outlining the delimitations, and will then end by presenting the outline of the report.

1.1 Background

The amount of people suffering from overweight or obesity is increasing around the globe, with Sweden not being any exception. According to Folkhälsomyndigheten (2014), approximately half of the Swedish population is either overweight or obese. These are shocking numbers, and they are still increasing (Folkhälsomyndigheten, 2014). To cope with the increasing obesity, it is critical that the Swedish consumers start changing diets towards more healthy food, which actually appears to be happening. ICA, Sweden's largest supermarket chain, stated in their 2014 annual report that one of the largest trends they will respond to in the coming years is health and consumers' willingness to live a long and healthy life. This is also supported by Nielsen (2015), a leading global information and measurement firm specialised on consumer behaviour, that further stated that health is a large trend in our society today, and for businesses this could provide interesting opportunities.

Health food has previously been considered a niche market, separated from the mainstream food industry. This is currently changing, and businesses have started to realise that health is going to become mainstream (Nielsen, 2015), and that food actually is equal to health (Healthy Marketing Team, 2015). Traditional large food producers are now experiencing a volatile environment, where the competition has shifted from mass manufacturers with low prices towards new players with new business models and technologies better adapted to consumers demand for healthier food. Moreover, trends such as the sugar debate, gluten free diets and natural ingredients succeed each other, making it difficult for food producers to predict what consumers of tomorrow actually will demand (Healthy Marketing Team, 2015).

The overall health trend as well as difficulties with this market was identified by a company, in this thesis called Investment AB, who therefore initiated this study. Investment AB is an investment firm that owns and develops companies on a long-term basis, with the goal of diversifying the operations of its parent company and contribute to increased value growth. One of their holdings is a Nordic health food company, in this thesis called Healthy Inc., that sells products within diet and health, superfood, sports nutrition, cold remedies and hygiene. More than half of the company's products are sold through food retail stores, and Investments AB now wants to investigate opportunities for Healthy Inc. to increase growth through this sales channel.

Healthy Inc. operates within two main categories; the traditional self-care market and the newer health food market. The self-care market includes herbal and natural OTC medicines, dietary supplements, sports nutrition and weight-loss products (Svensk Egenvård, 2015). The health food market on the other hand is not as clearly defined but includes food that provide, or are perceived to provide, some kind of health benefit. The overall trend towards greater awareness of health and wellbeing has significantly increased the interest in health food, while the growth in the self-care market has stagnated over the last years (Svensk Egenvård, 2014). Healthy Inc. therefore believes that health food sold through food retail stores offer the greatest future growth opportunities.

Healthy Inc. is a brand company, meaning that they manage brands within the health food category by either acquiring new brands, licensing external brands or developing new products in-house through their currently owned brands. Healthy Inc. has outsourced all production in order to focus on their core competencies that include product development, sales and distribution. The company's customers include large food retail store chains, pharmacies and more specialised health stores. This necessary use of retail stores as an intermediary creates a gap between Healthy Inc. and their end consumers, which complicates the process of understanding consumer preferences and behaviour.

Due to the large trend of interest in health and wellness among consumers, there are great opportunities for businesses to take advantage of that health is becoming mainstream, enabling actors to reach the mass market and not only a niche group of consumers. Healthy Inc. is well equipped to be a part of this market, taking advantage of their brands or capabilities to acquire or license external brands, as well as their distribution channel through food retail stores that enables them to reach the mass market. However, due to the volatile health food market in the form of different trends that succeed each other, the question is where on this market they should focus their efforts. As stated by Susan Dunn, executive vice president, Global Professional Services, Nielsen:

"There is a tremendous opportunity for food manufacturers and retailers to lead a healthy movement by providing the products and services that consumers want and need. While diet fads come and go over time, innovative, back-to-basics food that taste good, are easy to prepare and provide healthful benefits will have staying power. The first step is knowing where to put your product development efforts." (Nielsen, 2015, pp3)

1.2 Purpose

The purpose of this thesis is twofold. Firstly, the increasing interest in health and wellness among consumers in Sweden as well as worldwide is, as previously mentioned, likely to provide growth opportunities for firms within the industry. However, due to the large amount of trends that come and go

within this industry, it is difficult for companies to know where to focus their efforts. This leads to the first purpose of this thesis:

The thesis aims to identify growth opportunities within the health food industry.

Secondly, the volatility of trends that come and go raises a question of whether there are any existing theories that may explain this phenomenon. The hype cycle is a theory developed by Gartner, aiming to describe the phases of expectation that a technology goes through when it is new to the market, illustrating a pattern of an initial irrationally positive reaction to a novelty. This phenomenon appears to be observed also in the less technological health food industry, where different characteristics in health food are hyped in media and succeed each other in a fast pace. As the hype cycle may be used in order to decide whether, how and when to invest in a new technology, this will be used in order to fulfil the first purpose. Thus, this also leads to a second purpose of this thesis as follows:

The thesis aims to investigate how to apply Gartner's hype cycle on the health food industry.

1.3 Research Questions

In order to identify growth opportunities within the health food industry, the industry firstly needs to be clearly defined. This will be done through exploring what attributes consumers believe characterise health food and what affects their perception. Due to the high amount of trends that come and go, it is furthermore interesting to identify if these characteristics defining health food today are short-term trends, i.e. hypes, or if they will persist in the long-term, i.e. if they are megatrends. Therefore, the next part of this study aims to identify the duration of these factors using the theory of Gartner's Hype Cycle. This will be followed by an analysis of how the hype cycle may be interpreted in this setting. Lastly, this master's thesis will also cover how a company could take advantage of these hypes or megatrends to enable further growth. Thereof, the below research questions have been developed in order to fulfil the purpose of this thesis.

RQ 1: What characteristics currently define health food?

RQ 2: Where in Gartner's hype cycle may these health food characteristics be positioned?

RQ 3: How, based on the findings in research question 2, may Gartner's hype cycle be interpreted in the setting of the health food industry?

RQ 4: How may hypes and trends be managed in order to create long-term growth within this industry?

1.4 Delimitations

This study will only focus on identifying growth opportunities within the health food industry, and hence not include the traditional self-care market, even though Healthy Inc. operates in both. Furthermore, Healthy Inc. is only mentioned to provide an understanding of the background to this study, and no specific recommendations to them will be outlined in this report. This study will also be focused on primarily investigating the Swedish market. Furthermore, when identifying growth opportunities, different levels of analysis could be of interest. This study is focusing on health characteristics and whether they are hypes or megatrends, but it is possible to narrow it down even further and consider for instance different diets or even products that are considered healthy. However, due to time and resource constraints, it was deemed most appropriate to only focus on the level of what is called characteristics of healthy food, while the reader should bear in mind that other levels could be considered. Moreover, there are also various tools and frameworks for how to identify growth opportunities within an industry, but this study aims to find growth opportunities by using Gartner's hype cycle, why no other tools and frameworks are included.

1.5 Outline of the Thesis

The thesis begins with a literature review that aims to provide an overview of relevant literature. Thereafter, the methods used to answer the research questions and fulfil the purpose in this thesis are thoroughly outlined. This is followed by a presentation of the empirical findings, covering secondary as well as primary data underlying the analysis. Thereafter, the findings are analysed to determine growth opportunities and how the hype cycle may be applied to this industry. Lastly, conclusions are presented. The outline is presented in Figure 1 on the next page.

1. Introduction

Explains the background to and purpose of the study

2. Literature review

Presents literature relevant to answer the research questions

3. Method

Outlines the research strategy, process, data collection and analysis

4. Empirical findings

Presents the findings regarding overall perception of health food, specific health food attributes and macro trends affecting the industry

5. Analysis

Presents an analysis of growth opportunities, how to handle these and how the hype cycle may be applied to this industry

6. Conclusion

Concludes and wraps up the analysis

Figure 1 - Outline of the thesis.

2. Literature Review

In order to answer the first research question of this master's thesis, i.e. what characteristics currently define health food, the *Theory of Scientific Paradigms* will firstly be presented in this literature review. This will provide an understanding of why consumers' perceptions may change over time. In order to further identify growth opportunities within this industry, the theories of the *Diffusion Curve* and the *Technology S-Curve* will firstly be described, in order to explain how an innovation is adopted among consumers and how it develops through its life cycle. This will be followed by a description of *Gartner's Hype Cycle*, explaining the phases of expectation that a technology goes through when it is new to the market, which will be useful in order to identify and determine how to manage short- and long term growth opportunities within the health food industry.

2.1 Scientific Paradigms

The notion of scientific paradigms was introduced by Kuhn (1962), and is based on the idea that a scientific community cannot function and progress without some set of common beliefs. If a scientist would not base his or her work on assumptions from previous research, he or she would never be able to provide anything new to society. This type of science, i.e. science based on accumulated accepted facts and theories, is according to Kuhn (1962) called normal science.

Kuhn (1962) further argues that a paradigm starts with a random collection of mere facts. During the early stages of an inquiry, different researchers are tackling the same phenomenon in different ways, resulting in different opinions of how to interpret and describe it. After some time, pre-paradigmatic schools appear, each emphasising on a specific part of the collection of facts. Through competition between these different pre-paradigmatic schools, one particular paradigm eventually emerges. The paradigm is thus based on the most credible of the competing theories, but often it is not enough to explain all aspects of the particular phenomenon, making new research, i.e. normal science, possible. As the paradigm grows and new disciplines and professions form within it, the other pre-paradigmatic schools eventually fade away. During the normal science within a particular paradigm, no resources are allocated to call forth new types of phenomenon, and if anomalies occur, they are often discarded or ignored. Thus, in the early stages of a scientific paradigm, theoretical alternatives are easily invented, but as the paradigm gets entrenched, the alternatives become more and more resisted (Kuhn, 1962).

However, in most cases, researchers find anomalies within the paradigm that at one point cannot be ignored any longer. This, according to Kuhn (1962) results in a crisis of the paradigm, which in turn is the beginning of a science revolution. If misstatements of the normal science is found during the period of revolutionary science, new paradigms will be formed, changing the rules of the game and guide science

into new directions. Thus, Kuhn (1962) suggests that the scientific paradigms are often cyclical, where periods with normal science will eventually be interrupted by revolutionary science.

2.2 Diffusion Curve

The diffusion curve displays the market penetration of an innovation, through illustrating the types of consumers it attracts during its life cycle (Moore, 2001), as shown in Figure 2 below. It is a process dependent on how people are gradually becoming prone to adopt a new idea, meaning it is a social learning process resulting in change of attitudes and values (Brown, 1992). The rate of diffusion among consumers is determined by how information is spread within a social system over time (Rogers, 2003). The number of adopters over time is assumed to be normally distributed, which is illustrated in the adoption curve below. The different types of adopters are further categorised according to their propensity to adopt an innovation, beginning with the innovators and continuing on to the early adopters, early majority, late majority and laggards (Lindmark, 2006).



Figure 2 - Diffusion of an innovation (Rogers, 2003), axes added by the authors of this master's thesis.

Innovators have a gatekeeper role in the diffusion process since they are the first to adopt an innovation, i.e. they import the innovation from outside the system's boundaries (Rogers, 2003). The next group of people to adopt are called early adopters. These people have the ability to easily imagine, understand and appreciate the benefits of a new technology in relation to their other concerns and they are willing to base their buying decision on their own intuition (Moore, 2001). Consequently, they are visionaries and expect to get first mover advantages by being the first to introduce new technologies to their industry. However, in order to capture any substantial profits and growth, it is essential to reach the next group, early majority, since this group constitutes approximately one third of the whole adoption population (Moore, 2001). These people are similar to early adopters as they possess some ability to relate to a new technology, but unlike the early adopters, they require well-established references when buying a new technology in order to not risk buying into a fad (Moore, 2001). Therefore, bridging the gap between the

early adopters and the early majority can be highly difficult (Moore, 2001). The subsequent group, late majority, is similar to the early majority, but they tend to require even more proof of usefulness in order to consider purchasing an innovation, resulting in that they will wait until the majority of the actors in their system have adopted (Moore, 2001). Lastly, there are also laggards, who despite proofs of benefits do not want anything to do with the innovation (Moore, 2001).

The theory of diffusion of an innovation is also useful in order to understand why some products fail to reach a substantial customer base. Moore (2001) separates between early and mainstream markets: early referring to the consumer groups innovators and early adopters, and mainstream referring to consumers belonging to early and late majority. In order to leave the early market and enter the mainstream, firms need to move from the group early adopters to early majority, as illustrated in Figure 3 below. As previously mentioned, the characteristics of the consumers within these groups differ: early adopters have the ambitions to be first and early majority are pragmatists that prefer well-established references. This contrast results in a chasm that is difficult to cross, especially since early adopters are likely to lose interest in the technology if it reaches the mainstream market and since early majority does not consider early adopters to be relevant references but prefer references from within their own group (Moore, 2001).



Figure 3 - The chasm between the early and the mainstream market (Moore, 2001).

Moore (2001) further provides directions for how firms can overcome the chasm and successfully reach the mainstream market. Firstly, the author suggests to target the point of attack, meaning firms ought to target a specific niche market where all resources are to be focused in order to gain a dominant position in that particular segment. In this phase, firms are suggested to consider aspects such as who the target customer is, a compelling reason they should buy the product, what the whole product includes and what constitutes the competition. Secondly, the author suggests firms should "assemble an innovation force", meaning they should create the whole product based on the customers problems and possible solutions, either in-house or through collaboration with other parties. The third step is, according to Moore (2001), to define the battle, i.e. to understand the competition and their relationships with the target customers and thereafter define their own position in the market to force the competition out of the target segment. Finally, firms ought to launch the invasion, which refers to distribution and pricing (Moore, 2001). When crossing the chasm, it is of essence to secure a channel into the mainstream market that is comfortable for the early majority to use. Since an established distribution channel is critical in order to reach the early majority, firms should, during the chasm period, also use a pricing strategy that motivates the channel, rather than to satisfy customers or investors (Moore, 2001).

2.3 Technology S-curve

Diffusion research usually disregard the fact that technology changes during the diffusion process, which implies that the diffusion does not solely depend on the speed of which information is spread. Lindmark (2006) points to that the technological change itself is one of the main factors for explaining diffusion. Thus, gradual improvements in technology can activate new market segments over time and can therefore also explain the diffusion process.

How a technology develops can be explained by the technology s-curve. The curve illustrates how a new technology improves as a function of R&D expenditure, as shown in Figure 4 below. Emergent technologies develop rather slowly, resulting in performance improvements being achieved at relatively high cost in terms of time and money (Brown, 1992). However, the technology eventually reaches a critical stage whereby the performance improves rapidly, until it starts reaching its inherent limits where large expenditures only have marginal effects on performance (Lindmark, 2006). As illustrated in the s-curve, the highest return on investment will be achieved when investing in a developing technology, rather than emerging or mature technologies (Brown, 1992). At this phase, the performance will be improved rapidly at relatively low R&D costs. However, companies investing in emergent technologies might gain an advantage due to the learning effects it implies, which they then can utilize in the developing phase and thus outcompete their competitors (Brown, 1992). Hence, it can be more beneficial to invest in emergent technologies even if these do not initially yield the greatest returns (Brown, 1992).



Figure 4 - The Technology S-curve (Brown, 1992).

2.4 Gartner's Hype Cycle

Gartner's hype cycle illustrates the phases of expectation a technology goes through when it is new to the market. A new technology is typically first received with over-enthusiasm from media and users, which is followed by a period of disappointment after which the technology either ends up as a fad or arrives to an understanding of how it is relevant to the marketplace (Fenn & Raskino, 2008). The model distinguishes a hype that becomes a fad from one that lasts and eventually becomes a megatrend (Järrehult, 2011). The model may be used in the process of deciding whether, how and when to invest in a new technology (Steinert & Leifer, 2010).

The hype curve is formed by two separate curves. The first curve, sub-curve A, illustrates the level of hype, which initially is high due to an irrationally positive reaction to the introduction of a new technology (Steinert & Leifer, 2010). The second curve, sub-curve B, illustrates an s-curve, that is related to how the technology matures over time as described in Chapter 2.3 and also to rising expectations among the early majority. The two curves together form the hype cycle, as seen in Figure 5 below. The hype cycle therefore illustrates the mismatch between human expectations and the nature of innovation, where expectations rise quickly while the performance gains and adoption of an innovation develops more slowly (Fenn & Raskino, 2008).



Figure 5 - The Hype Cycle in a combination of the hype level and the technology S-curve (Steinert & Leifer, 2010).

A technology that is new to the market goes through five distinct phases in the hype cycle. The stages include the innovation trigger, peak of inflated expectations and the trough of disillusionment, and if it does not turn out to be a fad, also the slope of enlightenment and plateau of productivity (Steinert & Leifer, 2010). These five phases have different characteristics, as illustrated in Figure 6 below. During the innovation trigger, a public announcement or breakthrough draws media attention to a new technology (Steinert & Leifer, 2010). When the innovation reaches the peak, publicity has generated over-enthusiasm and unrealistic expectations, while there is still very low adoption in the marketplace and the performance of a product is poor (Fenn & Time, 2007). The press however reinforce the need to take part in the technology or be left behind. This often results in companies investing quickly in the hyped technology without having a clear strategy, and thus attempting to apply it to many different settings. After some time, the hasty investments and over-enthusiasm result in products that fail to meet the high expectations of performance and adoption rates. These disappointments are then spread by media and the negative hype makes the technology slide into the trough of disillusionment. At this point, some early investors opt out of the technology as it becomes widely criticised and unfashionable. There is however not always a drop in the overall adoption in the trough, but instead the anticipated rapid growth may slow down. The lasting value of a new technology is rarely found before the disillusionment sets in (Fenn & Raskino, 2008). Therefore, as the technology eventually reaches the slope of enlightenment investors start to experience performance improvements and the technology becomes better understood. At this point, there is however still a very little part of the consumer base that has adopted the technology. After some additional time, the technology demonstrates to be successful in the marketplace and the adoption accelerates into the plateau of productivity (Steinert & Leifer, 2010). It is possible that a technology experiences more than one hype before reaching this plateau or that it does not reach the plateau at all (Fenn & Raskino, 2008).



Figure 6 - The 5 phases of the Gartner Hype Cycle (Steinert & Leifer, 2010).

When deciding whether and when to invest in a new technology, companies should avoid to invest in an innovation simply because it is hyped, as the expectations of the value of the technology are often exaggerated. At the same time, companies should also avoid to dismiss an innovation based on that it is not yet living up to early over-expectations (Linden & Fenn, 2003), see Figure 7. A key consideration also includes that some innovations never make it through the entire hype cycle and fail to ever reach the plateau of productivity. This could for example happen when an innovation is replaced by another technology, or when it becomes embedded in another technology. In these cases, the actual capabilities of the innovation tend to not fall off the cycle, but a specific technique to reach the capability may fall off the cycle in favour of another technique (Fenn & Raskino, 2008). Another reason that innovations do not progress beyond the trough is because they are fads, that is, when there turns out to not be enough physical or intrinsic value in the innovation for it to endure (Fenn & Raskino, 2008).



Figure 7 - Avoid basing investment decisions on the level of positive or negative hype (Linden & Fenn, 2003).

The scale of each technology's hype cycle depends on its overall perceived importance to businesses and society. Technologies that appeal to a large number of enterprises or consumers will attain much higher levels of exposure and therefore hype than those that affect only a limited amount of stakeholders (Linden & Fenn, 2003). Different technologies may also take different routes in the hype cycle, as illustrated in Figure 8 below. In addition, the time to go through the cycle may also vary between different technologies: some may take years and others take decades. Fenn and Time (2007) outline three different adoption speeds. Normal technologies usually take between five to eight years to go through the cycle. A fast-track technology goes through the cycle within two to four years because of a high value, ease to use, possibility to use an existing infrastructure and a quick transition from consumer to corporate use. An example of such a technology is Short Message Service that went through a negligible trough of disillusionment and reached maturity relatively quickly (Fenn & Time, 2007). A long-fuse technology on the other hand may take several decades, as it is often characterised by an unrealistic fascination that is far more advanced than the actual technology, high complexity, regulations of adoption and reliance on a new infrastructure and new business models. For example, object-oriented programmering took 10 to 15 years to become widely adopted because of barriers in the form of established development processes and skills (Fenn & Time, 2007).



Figure 8 - Different routes a technology may take, take special notice of the possibility of a hype ending up as a fad.

In order to position an innovation on the hype cycle, the level of hype and maturity may be quantitatively analysed by studying the visibility and user interest. Visibility, or expectations, may be assessed by extracting the number of newspaper articles that have been published on the topic over time. The user interest may be analysed by the number of search requests that users have made on the topic (Fenn & Raskino, 2008). The position in the hype cycle may also be assessed from a qualitative point of view, studying the tone and nature of media currently published on the topic. In the beginning of the hype cycle, media tends to focus on the innovation itself its the future possibilities, and in the end of the cycle focus instead lies on the applications, practicalities and results. Stories also tend to be overly positive at the peak whereas they turn negative and cynical towards the trough (Fenn & Raskino, 2008). Table 1 on the next page outlines the main characteristics of each phase in the hype cycle and may therefore be used to position an innovation in the hype cycle.

Innovation Trigger	Peak of Inflated Expectations	Trough of Disillusionment	Slope of Enlightenment	Plateau of Productivity
Suppliers funded by venture capital	Frequent positive stories in press	Negative press	Positive press, but more modest	High-growth adoption phase
Few sellers on the market	Many sellers	General cynicism is spread	2 nd & 3 rd generation products	20-30% adoption
Considerable customization needed	Phenomenon has a nick name	Consolidations and buy-outs from larger companies	Offer embedded into other tools or services	
High price	Suppliers use early adopters as references	Less than 5% of potential audience has adopted	Consultants offer solutions on how to adopt	
	Speculations of future impact		Reliable data on cost and value	

Table 1 - Characteristics of the different sections in the hype cycle (Fenn & Raskino, 2008).

Based on the above, the dilemma lies in attempting to predict what hypes will become megatrends in order to gain a competitive advantage, or to manage the gap between the hype and productivity without taking too large risks. There are three ways companies deal with the gap between the hype and the point where an innovation provides value (Fenn & Raskino, 2008). So-called type A companies are often lead innovators that deliberately adopt high-risk strategies for high potential rewards, thus invest in or before the peak. Type B companies are moderately willing to take risk and adopt new innovations in the through. These companies are both lead innovators and fast followers but tend to be relatively unsuccessful. Lastly, type C companies are neither willing nor have the capability to take large risks, and hence they invest at the slope of enlightenment. Type C companies are usually the most successful types of fast followers (Fenn & Raskino, 2008). Järrehult (2011) suggests that in order to cope with this, companies should start investing in hypes in small scale in the beginning of the cycle. This will enable firms to gain valuable experience that will lead to an advantage if the hype becomes a megatrend, while not taking too large risks if the hype becomes a fad.

The hype cycle is specifically developed to explain the advancement of technological innovations, but the phenomenon may also be observed in other industries and on other levels (Fenn & Raskino, 2008). Linden and Fenn (2003) argue that most technologies conform to the hype cycle because what is common in all cases is the human factor, i.e. how people react to a novelty, regardless of the nature of the technology. Fenn and Raskino (2008) furthermore highlight three reasons related to the human nature for why hype driven expectations interfere with the maturity curve. Firstly, people have a novelty preference, meaning they are inclined to be positive towards novelties and use imagination to overestimate new phenomenon to some degree. Secondly, humans are subject to social contagion, meaning that they are sensitive to what other people are doing and saying which can create the self-reinforcing effect of a hype. Lastly, decision heuristics play a large role, meaning that when somebody has become positive towards a phenomenon they tend to remain positively biased to this idea. Due to the relation between the hype cycle and the nature of human behaviour, the hype cycle may be highly applicable to innovations within less technology-intensive fields, such as the health food industry. The health food industry is furthermore naturally relevant to a large number of people and thus subject to extensive media attention, which is likely to fuel positive and negative hypes.

2.5 Relating the Diffusion Curve to Gartner's Hype Cycle

According to Fenn & Raskino (2008), the trough of disillusionment coincides with the chasm described by Moore (2001), as illustrated in Figure 9 below. As previously seen in Figure 6, the early adopters begin to investigate a new technology during the innovation trigger, indicating that both innovators and early adopters contribute to creating the hype. At the peak of inflated expectations, adopters beyond the early majority also begin to get involved. In the trough that follows, the adoption decreases in speed as previously mentioned, and in order to make it out of the trough the early majority needs to be reached, thus the chasm needs to be crossed. This is therefore where the chasm coincides with the hype cycle. Finally, given that the innovation successfully crosses the chasm between the early and the mainstream market, it also reaches early majority. As the adoption accelerates, the technology enters the plateau of productivity in the hype cycle.

The percentage rates denoted in Figure 2 and Figure 6 separately illustrating the diffusion curve and the hype cycle do however not coincide in the below figure. This could be due to that the adoption figures are estimations rather than precise guidelines. In addition, it should be noted that the two theories are of very different age. Thus, the differences may also be due to a change in industry dynamics over the years.



Figure 9 - The diffusion curve in relation to Gartner's hype cycle, figure created by the authors of this thesis.

3. Method

This chapter aims to outline the method applied to answer the research questions of this master's thesis, and thus to fulfil the purpose. The chapter will cover the research strategy, the process of the research and the data collection of the study. This will be followed by a description of how the data has been analysed and finally a discussion of the quality of this research.

3.1 Research Strategy

The aim of this study is to identify growth opportunities within the health food industry, and in doing so, discuss how the hype cycle may be applied in this setting. Since the key variables of the purpose, in this case referring to growth opportunities, are not completely defined, the design of the study is considered to be exploratory, in accordance to Ghauri and Grønhaug (2010). This requires a rather flexible approach (Ghauri & Grønhaug, 2010). The research strategy is inspired by a deductive approach, which according to Bryman and Bell (2011) uses existing theory to develop hypotheses, which then are confirmed or rejected by the findings of the data collection. Similarly, the hypothesis of this thesis is that the hype cycle could be used to explain the pattern of expectations in the health food industry, which is tested through applying the theory and analysing differences between health food attributes and technological innovations.

This study furthermore follows a mixed approach of qualitative and quantitative research, with a predominantly qualitative approach. According to Bryman and Bell (2011), a qualitative study emphasises words rather than quantification of data and includes the consideration that the reality is constantly shifting. Thus, this was chosen in order to be able to consider the complexity that follows from the undefined industry boundaries and complexity in defining growth opportunities. Qualitative research is also descriptive with focus on providing an understanding of the studied phenomena (Gillham, 2010), which was also essential in order to fulfil the purpose of this thesis. A quantitative approach in the form of a survey was also used to support and validate the analysis of the qualitative investigation.

3.2 Research Process

The research process of this study consists of four main parts. Firstly, a definition of the health food industry is developed through identifying what currently characterises health food. Thereafter, growth opportunities in the form of hypes and trends of health food characteristics are identified. This is followed by an analysis of how the hype cycle may be interpreted in the setting of health food. Lastly, appropriate strategies to manage hypes and trends are identified. In order to do this, the research followed a process as illustrated in Figure 10. The four parts are further described in the following sub-chapters.



Identify Growth Opportunities through Applying

Figure 10 - Research process illustrated in four steps, where the two last steps are derived from the second.

3.2.1 Definition of the Health Food Industry

In order to develop a broad definition of the health food industry, the history of dietary advice is outlined and analysed with the theory of scientific paradigms, to explain why consumers consider certain food more healthy than other today, and why their perceptions of healthy food changes over time. Thereafter, factors characterising health food are identified and investigated through secondary sources and a conducted survey, in order to set the scope of what characterises health food today. These factors are called *characteristics* or *attributes* throughout the report. All the identified attributes are related to contents in food, for example being low in some ingredient, free from some ingredient or high in some nutrient. The chosen attributes are presented in Chapter 4.4.3.

3.2.2 Positioning of Characteristics in Gartner's Hype Cycle

As previously mentioned, the health food industry is highly influenced by hypes and trends that affect consumers' perception of health food overt time. Thus, in order to identify growth opportunities within this industry, it is essential to analyse which of the identified characteristics of health food that are hypes versus megatrends, and which current hypes that are believed to result in megatrends. The identified characteristics are therefore positioned in and analysed using Gartner's hype cycle. Usually, Gartner's hype cycle is used in a technological context, but the health food industry has been observed to also

experience the phenomenon illustrated in the hype cycle. Due to the fact that it is the human behaviour that creates the hypes, as outlined in Chapter 2.4, it is likely that a similar phenomenon is occurring within the health food industry as well. Thus, Gartner's hype cycle theory was applied in the context of health food and this analysis resulted in an identification of characteristics that have the potential to provide long-term growth opportunities.

In order to assess where the investigated attributes may be positioned in the hype cycle, they are addressed both quantitatively and qualitatively. From a quantitative point of view, the visibility is illustrated through the number of newspaper articles published over time and the user interest through the relative change in search requests made on the topic over time. Thereafter, from a qualitative point of view, the articles are analysed in terms of focus and tone as proposed in Chapter 2.4, in order to determine the current level of hype. An attempt is also made to determine whether, or to what degree, the certain characteristic has a scientifically proven positive effect on health in order to find indicators for whether the hype has a possibility to become a megatrend. Lastly, in order to further analyse the long-term potential of the identified attributes, the study also includes how macro trends and changes in consumer behaviour may influence these.

3.2.3 Interpreting the Hype Cycle in the setting of the Health Food Industry

Due to the fact that the hype cycle is originally developed to explain a phenomenon related to technological innovation, an analysis of how the theory may be interpreted in this particular setting is conducted. More specifically, the main differences between a technology and a health food characteristic is discussed, followed by what implications these differences have for the application of the hype cycle on the health food industry. This is done based on the findings and what has been learned in the previous step of the research process.

3.2.4 Managing Hypes and Megatrends

The final part of the study aims to analyse how a firm could manage the hypes or megatrends identified in through the hype cycle analysis in order to enable long-term growth. This is done using the theory of Gartner's hype cycle about how to manage hypes and megatrends as well as applying the literature about crossing the chasm between the early and the mainstream market.

3.3 Data Collection

The data collection mainly consisted of qualitative methods, due to the exploratory and rather unstructured nature of this study. However, as previously mentioned, a quantitative survey has been used in addition to this in order to further support the qualitative analysis. According to Ghauri & Grønhaug

(2010), qualitative data is useful in order to provide insights and an understanding of concepts. Collection of data in qualitative research is usually conducted simultaneously as the analysis, often in an interactive manner, in order to enable new questions and further collection of data. This is often necessary due to the unstructured research problem that becomes more clarified as more data is collected, which in turn clarifies what new data is needed to collect (Ghauri & Grønhaug, 2010). This was the case in this master's thesis, especially since the data collection for the first part, i.e. the definition of the health food industry, set the scope of the following parts of the research. The data collection consisted of interviews, secondary sources as well as a survey, all described in further detail in the below chapters.

3.3.1 Interviews

Interviews are usually considered appropriate when conducting an exploratory study (Ghauri & Grønhaug, 2010), and were also used in this study in order to gain a deeper understanding of Healthy Inc. as well as insight into the health food industry and what characterises health food. Hence, both internal and external interviews have been conducted.

The internal interviews were conducted at Healthy Inc. in order to gain a basic understanding of the company and its market. Six employees were interviewed, who had positions as CEO, Head of Regulatory and New Product Development, Market Director and Brand Managers of the three largest brand categories. The interviews were all unstructured, which Ghauri and Grønhaug (2010) describe as interviews where the interviewee is given almost full liberty to discuss the particular topic, based on a few lead questions from the interviewer. Unstructured interviews are advantageous in the context of discovery (Ghauri & Grønhaug, 2010), as in this case.

To gain an understanding of health food and the health food market, several external interviews were also conducted. These followed a semi-structured approach, which according to Bryman and Bell (2011) is useful as it allows for deviation from the interview guide and enables follow-up questions when interesting answers have been given. Furthermore, the questions used were open, which is also useful when the aim is to get insights into an area where the researcher has limited knowledge (Bryman & Bell, 2011), as in this case. Firstly, an associate professor and lecturer in the area of nutritional sciences at the University of Gothenburg was interviewed regarding the evolution of dietary advice and preferences among consumers today. However, it was concluded that this type of expert did not have much to add to the information already collected from secondary sources, and when asking questions regarding preferences among consumers today, it became clear that nutritionists working more closely with people would be more appropriate. Therefore, three additional semi-structured interviews with nutritionists were conducted, due to the fact that they are working more closely to consumers. However, these interviews

only revealed general advices about healthy eating, such as eating a varied diet, and did not reveal much about specific characteristics of health food or health trends. Consequently, this was followed by a semistructured interview with a senior brand manager at ICA. ICA is currently investing in expanding their product range within health food (ICA Gruppen, 2014), and it was therefore considered interesting to understand how they characterise health food. Moreover, experts within the area of consumer behaviour were also contacted, which provided reports in the subject of health food consumption. All interviews were conducted over the phone. The interview guides may be found in Appendix 1.

3.3.2 Survey

A survey has been used to support the definition of the industry in its current state through looking at what characteristics Swedish millennials currently associate with health food. Millennials have in this case been defined as people that are currently between 21-34 years of age, i.e. born between 1980-1995, similar to the definitions made by Kavounis (2008) and Fromm & Garton (2013). The focus on this age group is due to the fact that millennials are said to set the trends in the consumption of health food today (Cuppett, 2014), which is further described in chapter 4.4.1. As suggested by Ghauri & Grønhaug (2010), a review of the current knowledge in terms of previous similar investigations was performed before constructing the survey, and an understanding of different health attributes was formed through studying reports covering the worldwide and the US market. However, as Nielsen (2015) states, it would be misleading for firms to assume that consumers in different regions have the same preferences, and thus, a similar descriptive survey of the perception of health attributes among some Swedish consumers has been performed. The 14 investigated attributes were chosen qualitatively as suggested by Ghauri & Grønhaug (2010), through studying and qualitatively analysing reports and previous research on the subject.

The researched population includes millennials currently living in Sweden. A survey should aim to access a representative and random sample of the researched population (Ghauri & Grønhaug, 2010). It is however resource- and time consuming to find a means that guaranteed the sample to be completely representative while at the same time managing to collect enough answers. Thus, this survey was conducted using convenience sampling. Convenience sampling is a non-probability sampling method used where entities in the population are included according to their ease of access rather than randomly (Easterby Smith, Horpe and Jackson, 2013). When using this type of sampling, inferences from the sample on the population cannot be drawn with the same level of confidence as for probability sampling methods (Easterby Smith et al., 2013). The results will therefore be analysed with particular attention drawn to the bias that this sampling method is likely to introduce. Bias is in this case introduced primarily in terms of geographic location and level of education, which is further discussed in chapter 3.5 *Research Quality*. The sample was collected through posting the survey on the Internet through Facebook, Twitter

and blogs. These channels were considered appropriate as they enable reaching a wide audience of millennials. The target minimum size of the sample was set to 100, and 147 people in total answered the survey out of which 137 were millennials.

The nature of the questions allowed for a respondent-completed questionnaire, which means respondents fill in the questionnaire without interference from the interviewee which allows for it to be distributed online (Easterby Smith et al., 2013). The survey was created through the online service SurveyMonkey and consisted of closed questions. In order to obtain as many answers as possible, the survey was kept short with only five questions covering the 14 characteristics, which was enough for the purpose of this investigation. The first two questions were background or qualifying questions, determining the gender and age group of the respondent. The third question aimed to determine to what degree the respondent made active decisions to buy and consume healthy food today, in order to be able to analyse the difference between different respondent groups. The two remaining questions asked the respondent to firstly grade the health importance of 14 attributes on an ordinal scale, and then answer whether they would be willing to pay more for the same 14 attributes. On an ordinal scale, the importance lies in the order of the possible answers, but the exact distance between every answer is not quantifiable but rather subjective (Cunningham & Aldrich, 2012), as in this case where the possible answers ranged from "very important" to "not at all important". The 14 characteristics were programmed to appear in a randomised order for every respondent in order to avoid bias.

The respondent also had the possibility to add additional comments on what food attributes they considered important. It was furthermore deemed necessary to offer respondents a possibility to choose "no opinion", as they may not know what they think of a certain attribute. Forcing the respondents to take a position would likely result in random and misleading answers when a respondent does not have an opinion. After constructing the questionnaire it was sent out to three people that were allowed to provide feedback, whereupon the questionnaire was revised. See questionnaire in appendix 2.

3.3.3 Secondary Sources

In order to answer the research questions of this master's thesis, the data collection also involved collecting data from secondary sources. In order to define the health food industry and what characterises health food, secondary sources in the form of market reports have been used in combination with books and articles. In addition, information from websites of health food organisations and nutritionists have also been used for this purpose. Thereafter, in order to identify macro trends and how consumers' behaviour has changed, trend reports from several consultancy firms as well as from market research organisations have been used.

Secondary sources have also been used to position attributes in the hype cycle. When assessing visibility in terms of the number of newspaper articles published over the last years, the Chalmers library database Summon has been used. The search made includes newspaper articles published between 1994 and 2014. There is an option to include results beyond the library's collection, which has been chosen in order to minimise bias in terms of the type of databases Chalmers provides. Newspaper articles have been chosen as they most accurately display the level of media attention at a certain point in time, whereas for example journal articles are often published with some delay. Different search phrases have been used in the searches in order to find the search producing most accurate results. It should be noted that the visibility does not necessarily directly reflect the level of hype, as the data include both positive and negative articles published on the particular subject. Thus, it is possible that a peak in the number of published newspaper articles actually represents the trough of disillusionment in the hype cycle, since the peak might reflect a high amount of negative articles getting published in the subject. This has been taken into consideration in the analysis through also qualitatively analysing the specific content and tone of published articles. Thus, also newspaper articles, both published internationally and in Sweden, have been analysed in order to position attributes in the hype cycle. These have been found through Google's search feature called News, where the most recently published news on the particular health food characteristics were found. Google News was chosen instead of Summon since this enabled searching for Swedish articles, which was not possible in Summon. Furthermore, the selection of the articles for the qualitative analysis was based on the relevance of the content, the publication date as well as the availability of the newspaper for consumers.

Furthermore, Google trends has been used in the assessment of user interest. Google trends include a feature that illustrates the relative search interest of a search term from 2004 to the present. The absolute number of searches is not available, but is not needed in this analysis as the interest primarily lies in how the search numbers have changed over the past years. Google trends also enables searching on topics, which means looking at the search interest on not only one phrase but for all related phrases. When such a topic has been available and appropriate, it has been used as it is deemed to be more comprehensive than only one specific search term. All graphs that are dashed indicate that a topic has been used instead of a specific search phrase.

3.4 Data Analysis

Below follows a description of the methods used to analyse the qualitative interview data and data from secondary sources as well as the quantitative survey data.

3.4.1 Interview and Secondary Data Analysis

As stated by Bryman & Bell (2011) one of the main difficulties with qualitative research is that it easily generates large amounts of data that is cumbersome to analyse. In order to facilitate this, the method of qualitative data analysis has been inspired by the Grounded Theory framework. This approach firstly includes theoretical sampling, meaning an iterative approach to data collection and analysis, where the emerging data constantly directs the process of data collection (Bryman & Bell, 2011). This enabled an iterative approach to data collection through interviews, where the findings directed the development of the research in terms of what further interviews to perform as described in Chapter 3.3.1. Secondly, grounded theory encompasses iterative and continuous coding of data, which entails breaking down the data into sections and give these specific names (Bryman & Bell, 2011). This has been done both when analysing macro trends, as seen in Table 5 and Appendix 3, as well as when analysing health characteristics, as seen in Table 2. The data has been coded along with its collection in line with this theory (Bryman & Bell, 2011). Grounded theory results in categories and properties of these categories (Bryman & Bell, 2011), where the properties in this case are the health attributes or characteristics as well as specific macro trends.

As previously mentioned, secondary data was also collected for every health characteristic in the form of visibility, search interest, content and tone of newspaper articles as well as scientific research. The analysis of these data followed the method proposed in the theory of Gartner's hype cycle, presented in Chapter 2.4.

3.4.2 Survey Analysis

The survey data has been analysed both in terms of all respondents and through separating the results between two different respondent groups. As the innovators and early adopters are those that adopt new trends earlier and therefore may be able to predict what the majority will adopt in the future, these formed a separate group from the rest of the respondents. The innovators and early adopters are in this instance defined as those who have claimed that they *always* make active choices to buy and consume healthy food. This group will through the rest of the report be referred to as *health enthusiasts* or simply *enthusiasts*. The rest of the respondents are considered as early and late majority or laggards. By dividing the results of these two groups, any large differences will be analysed and discussed in order to see whether some attributes are more important to one group than the other. However, as the survey has been

carried out using convenience sampling, no statistical methods evaluating whether the differences are statistically significant or not may be used (Cunningham & Aldrich, 2012). Thus, the result from the survey is only used to find indications of the preferences of Swedish consumers.

3.5 Research Quality

The research may firstly be evaluated in terms of its reliability and validity. According to Bryman & Bell (2011), reliability concerns whether a study is repeatable and the measures are stable, and therefore creates consistent results. However, qualitative research generally does not generate consistent results. This is due to a number of factors such as the specific situation the research is conducted in and the interpretation of the results. Thus, reliability is generally less applicable to qualitative research (Bryman & Bell, 2011). Consistently with this, the unstructured and semi-structured interviews and qualitative analysis in this study make it difficult to replicate precisely. The reliability has however been increased by thoroughly describing the research method to enable replication of the study to an as large degree as possible. Furthermore, there are different types of validity, out of which ecological validity is mostly applicable to qualitative research (Bryman & Bell, 2011). Ecological validity concerns whether the results of a study are not only technically viable but also hold in people's everyday actual social setting (Bryman & Bell, 2011). In this study, all interviews have been carried out in people's own social setting which implies high ecological validity. However, as Bryman and Bell (2011) states, surveys tend to have low ecological validity as answering a questionnaire is in itself an unnatural task.

There are several additional aspects of the quality of this study that are interesting to reflect upon. First of all, the studied characteristics of health food have been chosen based on two previously conducted reports. It is possible to argue that more references could be beneficial in this case, in order to get more trustworthy results. However, these were the only two comprehensive and recent reports found that were comparable and analysed characteristics on the same level of analysis. In addition, there are evidently more than the 14 chosen health attributes describing health food today. The 14 in this report are qualitatively chosen as most important, but can not be argued to represent a fully comprehensive view of health food. The time and resource constraints of this study however motivates choosing a limited number of attributes, and the methods used when analysing these may be used to analyse additional attributes of interest.

The use of the Chalmers library database may also not perfectly reflect all articles published in the subjects, even though including results beyond the library's collection. It however gives an indication of the change in interest in the topic over time, which is what is important for the analysis. Furthermore, the searches on Google Trend would preferably had been on searches in Sweden only, but unfortunately

many of the attributes had insufficient search quantities in Sweden and could therefore not be plotted. Thus, worldwide search interest has been used instead. This could reduce the quality of the findings as there may be cultural differences between countries, but the risk of this has been minimised through a qualitative analysis of Swedish articles as well.

In the conducted survey, a complete sample frame of the millennial population of Sweden was not possible to obtain due to time and resource constraints, and thus a random sampling method was not possible. The convenience sampling method used is however likely to have introduced bias. Most survey answers are likely to be from people within the networks of the two authors, and the result is therefore not a perfectly representative sample of the Swedish millennial population. The sample is expected to be skewed towards a specific geographic area as well as to a higher than average level and specific type of education. In addition to this, respondents may be prone to answer that they make active choices to be healthy to a larger extent than they actually do, as people tend to want to perceive themselves as healthy. Hence the measurement dividing enthusiasts and others is quite subjective. The measurement is however in line with AlixPartner's (2013) findings stating that people who spend more than 40% of their food budget on health food are 43% more likely to rate themselves as health-conscious customers. It is furthermore a simplified assumption that the ones stating that they always make active choices to eat healthy are necessarily innovators or early adopters for all types of health food. The assumption is however made based on that people that make active choices to eat healthy are more likely to be interested in finding new information and research on the topic and therefore also most likely to try new things early on.

4. Empirical Study

The empirical study will firstly outline a background of health food, which will be followed by a brief history of dietary advice, showing one example of how it may change over the years. Thereafter, the current dietary advice in Sweden will be presented in the form of the Nordic Nutrition Recommendations. The next part of the empirical study aims to firstly identify what attributes consumers actually perceive as healthy today, and these will then be further investigated in terms of their media exposure, search interest and research evidence. The final part of the empirical study will outline macro trends affecting the health food industry, and thereafter changes in consumer behaviour.

4.1 Health Food Background

Health is, according to World Health Organisation, defined as:

"Health is a state of complete physical, mental and social well-being and not merely the absence of illness or infirmity" (World Health Organisation, 2015).

In order to determine physical health, the following key areas are often considered: physical activity, alcohol and drugs, rest and sleep, medical self care and nutrition and diet (Koshuta, 2015). The diet, i.e. what we eat and how much of the different components we eat, is considered one of the most important determinants of health (Santich, 2005). A well-balanced diet should consist of carbohydrates, proteins, fats, vitamins and minerals (Koshuta, 2015). However, the proportions of these components depend on the particular individual's needs (Hälsosidorna, 2015), allowing society and media to continually discuss what food is beneficial in order to live a healthy life. Nevertheless, the interest in healthy eating is increasing among consumers. In a report published by AlixPartners (2013) the large interest in healthy eating among American consumers is clearly shown, where 92 % of the respondents claimed healthy eating was very important or somewhat important to them as seen in Figure 11 below. However, it could be argued that people are likely to claim healthy eating is important to them without actually incorporating it into their lifestyles.





Figure 11 - How important is eating healthy? (AlixPartners, 2013)

The primary difficulty in defining health food is the fact that health is individual, meaning what food will be perceived as healthy depends on the individuals' own needs, definition and perspectives of healthy living. Furthermore, consumers' perception of what is healthy to consume is also largely dependent on what society and media believes, i.e. the dietary advice they provide to consumers (Santich, 2005). According to Santich's (2005) study of dietary advice in Australia from the middle of 1800s until now, it is clear that the dietary advice has changed significantly during these years, which in turn also changes the consumers' perception of healthy eating. Even if the dietary advice is based on recommendations from medical and nutrition experts, which in turn base their recommendations on scientific studies, the understanding of what is healthy changes as new nutritional knowledge emerge and as the understanding of metabolic processes improves (Santich, 2005). Santich (2005) also states another important aspect in the article: even if the advice is based on scientific studies, the knowledge is nevertheless socially and culturally influenced, which is why dietary advices should be evaluated within the particular context, taking into account social, cultural, economic and practical aspects besides nutrition.

4.2 A Brief History of Dietary Advice

In order to understand what food is considered to be healthy today, it is interesting to understand how dietary advice has changed over the years. In the 1960s, health concerns from malnutrition had been overcome and instead the problem with over-nutrition arose (Santich, 2005). During the 1970s, heart diseases became a primary concern in the US, why the government decided to provide dietary recommendations to the public in order to prevent this type of disease (Harcombe, Baker, Cooper, Davies, Sculthorpe, Di Nicolantonio & Grace, 2015). Scientists developed two competing explanations to this phenomenon based on nutrition: one emphasised on that saturated fat was the cause of the problem, while the other theory stressed the effects of sugar (Eenfeldt, 2011). However, despite that the theory of saturated fat as the cause of the problem was lacking in evidence, it still got accepted by both the American, the British and the Australian government due to a strong consensus of opinion (Harcombe et al., 2015; Santich, 2005), while the latter theory was rejected (Eenfeldt, 2011). Based on this, in 1977 the US government released recommendations for a healthy diet, which involved reducing overall fat consumption to 30 % of total energy intake and saturated fat to 10 % (Harcombe, et al., 2015; Taubes, 2001). This was followed by the UK, which in 1983 provided the same recommendations to the British people (Harcombe, et al., 2015). However, by only focusing on reducing fat consumption, the public health team did not pay enough attention to other risks, such as increased intake of carbohydrates, which today is believed to be causing the increasing obesity and diabetes in the Western countries (The Guardian, 2015; Eenfeldt, 2011). Thus, experts are now rather encouraging consumers to reduce the intake of sugar and carbohydrates in order to improve their health (Hite, Goldstein Berkowitz & Berkowitz, 2011; Hu, 2010), which in turn has made governments change their dietary advice to the
public. The history shows that there is no clear definition of what constitute healthy food, and instead implies that the beliefs at any one time is dependent on the current scientific knowledge as well as the current circumstances in terms of political, economic and sociocultural values (Santich, 2005).

4.3 The Nordic Nutrition Recommendations

The Nordic Nutrition Recommendations (2012) is a report released every 8th year that provides guidelines for the nutritional composition of a diet in order to provide a basis for good health in the Nordic countries. It is developed by a Nordic expert group and published by the Nordic Council of Ministers (Folkhälsomyndigheten, 2015). The report states that Western-type dietary patterns are characterised by a high consumption of processed meats and red meats (i.e. beef, pork, and lamb), a high consumption of food products low in essential nutrients but high in added sugar and fat, and a high consumption of food products with high level of salt. This type of diet is, according to the Nordic Nutrition Recommendations (2012), associated with adverse health effects and chronic diseases. In the report, it is suggested that dietary patterns with high level of vegetables, including dark green leaves, fresh peas and beans, cabbage, onion, root vegetables, fruiting vegetables (e.g., tomatoes, peppers, avocados, and olives), pulses, fruits and berries, nuts and seeds, whole grains, fish and seafood, vegetable oils and vegetable oil-based fat spreads and low-fat dairy products reduce the risk of most chronic diseases. Thus, the Nordic Nutrition Recommendations (2012) are suggesting the consumption of food patterns illustrated in Figure 12 in order to eat healthy. It is however highlighted in the report that the recommendations should be reassessed when appropriate due to the emergence of new scientific knowledge. Thus, these recommendations are not definitive (Nordic Nutrition Recommendations, 2012) but represents what the government of Sweden currently believes constitutes health food (Folkhälsomyndigheten, 2015). These recommendations therefore set the foundation of what is perceived as healthy food today, which also the interview with the senior brand manager at ICA revealed, since she stated that they follow these recommendations and use them as a basis for which products they consider to be good for the health.

Increase	Exchange	Limit
Vegetables and pulses	Refined cereals \rightarrow Wholegrain cereals	Processed meat Red meat
Fruits and berries	Butter \rightarrow Vegetable oils Butter based spreads \rightarrow Vegetable oil based fat spreads	Beverages and foods with added sugar
Fish and seafood	High-fat diary \rightarrow Low-fat diary	Salt
Nuts and seeds		Alcohol

Figure 12 - The Nordic Nutrition Recommendations.

4.4 Attributes Currently Defining Health Food

This part of the empirical study aims to provide a more specific understanding of what characteristics consumers in Sweden currently associate with health food. This is done by firstly present and further describe the generation called millennials, often claimed to be driving trends within the health food industry. This is followed by a presentation of previous research on consumer preferences in terms of health food, focusing on two large investigations of consumers worldwide and superusers in the US. This will be followed by the results of the conducted survey of this study, with the aim to provide indications on which health food attributes Swedish consumers perceive as most important and which they are willing to pay a premium for. Thereafter, these attributes are investigated in terms of their media exposure, search interest and support by scientific research, to provide the underlying data for the forthcoming analysis.

4.4.1 Consumers Driving Importance of Health Attributes

The consumers currently driving trends within the food industry are the millennials (Cuppett, 2014): a generation that refers to people born roughly between 1980 and 1995 (Kavounis, 2008; Fromm & Garton, 2013). Millennials make up the largest generation of young people in history and are therefore a highly influential consumer group (Nielsen, 2015; French, 2014; Euromonitor, 2015). This generation is well educated but has scarce resources of capital (Food & Friends, 2014), and believe in meaningfulness in both the work they do as well as in the products they buy (Euromonitor, 2015). Hence, the millennials are savvy shoppers, especially since they have limited cash and are reluctant to spend what they do have (Euromonitor, 2015). They have also grown up with technologies enabling price and product comparisons as well as free services, games and media (Euromonitor, 2015). In addition, they use digital communication technologies to manage their lives and work (Mendelson, 2013).

Millennials are also driving development of the health and wellness industry (Food & Friends, 2014; Cuppett, 2014). It is clear that they are aware of environmental concerns, and they therefore value for instance recyclable packaging of the food they consume, or in the best scenario, no packaging at all (Food & Friends, 2014). They want to purchase products that contribute to a better world, but they are not prepared to pay much for it (Food & Friends, 2014). For instance, many of the millennials instead chose to eat less meat and processed food (Food & Friends, 2014; Cuppett, 2014).

4.4.2 Current Research on Classification of Health Attributes

Nielsen (2015) recently investigated what health attributes consumers in 60 countries worldwide are looking for and whether they are willing to pay more for these. Similarly, AlixPartners (2013) have investigated the health and wellness superuser in the food and beverage sector in the US, looking into what these consumers consider to be healthy food and to what degree they are willing to pay a premium

for certain features. The report by Nielsen (2015) was chosen due to the fact that Nielsen is a leading market research firm with access to comprehensive consumer data worldwide. The report by AlixPartners, investigating superusers in the US, was also of interest in terms of this study, since trends in the US often is adopted in Sweden some years later. According to both reports, the rapidly growing health awareness among consumers is going to lead to new opportunities and a larger market for consumer product firms.

Nielsen (2015) outline four major categories of factors characterising healthy food. Firstly, consumers worldwide go back-to-basics, meaning they want to consume natural food with certain health benefits. Such food include natural, fresh and minimally processed food with no GMO. Secondly, consumers look for functional food providing benefits that either reduce the risk of disease or promote good health. Functional food are for example high in fiber, protein, whole grain, or fortified with calcium, vitamins and minerals. A third category, less is more, includes food that are low in cholesterol, sugar and fat, and free from caffeine, gluten and high fructose corn syrup. The last category includes environmental and socioeconomic concerns, that is, whether the food is sustainably sourced, organic and produced with local herbs/ingredients.

The global average ranking of attributes and willingness to pay for these according to the Nielsen (2015) report is displayed in Figure 13 below. Considering how different age groups have rated importance, millennials (aged 21-34) rate health attributes highest, and percentages are lowest among the respondents aged 65 and older. When investigating whether consumers are willing to pay a premium for healthy attributes, Nielsen (2015) concludes that the percentage of respondents that consider an attribute very important when buying is consistently higher than the percentage that are very willing to pay a premium for the same feature. The only exception is organic food, having an equal percentage claiming it is very important as being very willing to pay a premium. Furthermore, the ones that are willing to pay most for health attributes are millennials and generation Z (aged under 20). Nielsen (2015) means that as the purchasing power of millennials increases over the coming years, companies within the health food industry making an effort to connect with this generation can increase their chances of success.



Figure 13 - Percentage of respondents worldwide ranking an attribute very important and the percentage that are very willing to pay a premium according to Nielsen (2015). Chart compiled by the authors of this thesis.

AlixPartners (2013) similarly outline the preferences of US consumers, focusing on the health and wellness superusers. Superusers are defined as those who spend more than 40% of their yearly food and beverage budgets on health products. These types of consumers are generally more willing to pay a premium for certain health and wellness features, and also have clear preferences in terms of retail channels that may be used by firms to target these customers. This type of consumer is also more likely to have a higher income, a graduate degree and are more likely to live in the west of the US (AlixPartners,

2013). Superusers constitutes 26% of the US population, but accounts for 61% of the national food and beverage spending related to health which gives them a disproportionate impact on the market. This makes superusers a highly relevant consumer group to investigate for firms within the health food industry. Figure 14 below illustrates the importance and willingness to pay among this type of user in the US market.



Figure 14 - The perceived importance of certain attributes and the willingness to pay a premium for these. Chart by AlixPartners (2013).

The importance of certain features commands for significant price premiums that may be utilized by consumer product firms. However, AlixPartners (2013) note that importance is not the only factor driving purchase decisions, but price and performance has a significant impact that cannot be overlooked by health food companies. AlixPartners (2013) therefore conclude that superusers are an attractive but complex target group, with high awareness of price and high demands on quality and convenience despite a willingness to pay more for certain health characteristics.

AlixPartners (2013) have also found significant confusion when it comes to health claims on product labels. For example, there is no consensus on what criterion define a product as "natural", and 31% of

survey respondents do not know what it means that a product is genetically modified. Consumer confusion is also created from the use of scientific names on labels, where for example 97% of consumers consider vitamin B_{12} "good for you" but only 9% say the same for cyanocobalamin, which is the exact same thing. AlixPartners (2013) therefore mean that the food companies that seek to increase growth by developing the right products also need to develop the right labelling that highlights the attributes for which consumers are willing to pay more.

4.4.3 Survey on Classification of Health Attributes

The conducted survey investigated the perceived importance of and willingness to pay for the below listed attributes among millennials. The attributes have been chosen based on the previously described reports by Nielsen (2015) and AlixPartners (2013) and the conducted interviews with representatives at Healthy Inc. as well as ICA. The identified attributes have further been categories, as seen in Table 2 below.

Table 2 - Attributes or characteristics chosen for quantitative investigation of importance and willingness to pay among millennials.

Back to Basics	ack to Basics Environmental and Socioeconomic Concerns		Functional Food	Free From	
Natural Ingredients	Organic	Fat free/low fat	High protein	Gluten free	
	Vegetarian	Sugar free/low	High fiber	Lactose free	
		sugar			
	Locally sourced	Low or no salt	Vitamin fortified	GMO free	
		Low cholesterol			

In total, there were 147 respondents to the survey, out of which 137 were millennials. 61% of respondents were women and 39% were men. Figure 15 illustrates the distribution of all respondents in terms of to what degree they claim to make active choices to buy and consume healthy food today.



Figure 15 - Distribution of the 137 millennial respondents.

Figure 16 below illustrates the accumulated results from all respondents in the performed survey. The attributes that were investigated are sorted in descending order by how many of the respondents that considered a characteristic to be "very important" when deciding whether a certain food is healthy. The black line illustrates what percentage of the respondents that answered that they would be willing to pay more for the certain attribute.



Figure 16 - The stacked bars illustrate the importance of an attribute and the black line represents the percentage of respondents that ate willing to pay a premium for the feature.

Figure 17 below illustrates the same attributes but sorted in descending order according to what percentages of the respondents that rated these either "very important" or "somewhat important". The chart therefore illustrates the percentage of the respondents that consider an attribute *at all* important. This produces a different ranking than only looking at respondents rating an attribute very important as in the previous chart.



Figure 17 - The percentage of respondents that have rated the attributes very or somewhat important in combination with the percentage of respondents that are willing to pay a premium for the feature.

The following illustrations divide the groups into enthusiasts and others in order to allow for an analysis of potential differences in the preferences of the two groups. Health enthusiasts are, as previously mentioned, defined as those who have answered that they *always* make active choices to buy and consume healthy food, which were about 16% of the respondents. Figure 18 below illustrates the importance of the different characteristics in terms of what percentage of respondents that rated these very important. The chart is sorted in descending order by the average value of *all* answering respondents.



Figure 18 - The percentage of enthusiasts, non-enthusiasts and all respondents that rated an attribute "very important".

Figure 19 below illustrates what percentage of the respondents that claim to be willing to pay more for a certain attribute, similarly separating enthusiasts from the other respondents. The chart is sorted in descending order according to the willingness to pay among *all* answering respondents.



Figure 19 - The percentage of respondents willing to pay a premium for a feature.

In order to further provide an indication of what attributes that both provide a high importance and the consumer is also willing to pay for, the importance and willingness to pay have been plotted against each other in Figure 20 below. The three attributes organic, locally sourced and natural ingredients stand out as the ones that are most important to all respondents in combination with a high willingness to pay.



Figure 20 - The weighted average of the importance of an attribute plotted against the percentage of respondents that are willing to pay more for the certain feature.

4.4.4 Exposure, Interest and Research on Health Attributes

In order to assess where the investigated attributes may be positioned in the hype cycle, they will be addressed both quantitatively and qualitatively. From a quantitative point of view, the visibility and user interest will be illustrated through the number of newspaper articles published and search requests made on the topic over time. Thereafter, the articles will be qualitatively analysed in terms of tone and focus in order to determine the current level of hype. Lastly, an attempt will be made to determine whether, or to what degree, the certain characteristic has a scientifically proven positive effect on health. Table 3 below illustrates the chosen attributes and the order in which they will be presented in this chapter.

Back to Basics	k to Basics Environmental and Socioeconomic Concerns		Functional Food	Free From	
Natural Ingredients	Organic	Fat free/low fat	High protein	Gluten free	
	Vegetarian	Sugar free/low	High fiber	Lactose free	
		sugar			
	Locally sourced	Low or no salt	Vitamin fortified	GMO free	
		Low cholesterol			

Table 3 - Overview of the below investigated health attributes.

4.4.3.1 Natural Ingredients

Considering the visibility of natural ingredients, the number of published newspaper articles has increased quite steadily over the studied period, as seen in Figure 21. A Google Trend search on "natural ingredients" and "natural food" reveals no significant increase in interest over the last few years, see Figure 22.







Figure 22 - Relative Search interest in "natural ingredients" (the lower line) and "natural food" (the upper line) from Google Trends.

Several recently published articles regarding natural ingredients in food raise the issue that there is no clear definition of natural ingredients, even though many consumers demand for it (Phillips, 2015; White, 2015; Whoriskey, 2015a). The US Food and Drug Administration (FDA) informal policy is that it includes food with no artificial or synthetic ingredients, including colours regardless of source (Phillips, 2015). Moreover, in an article written by Phillips (2015), Blair Brown, senior regulatory specialist with TIC Gums White Marsh, suggests defining natural ingredients as naturally occurring raw ingredients that are processed without changing the original chemical structure of any of the components. The issue of defining natural ingredients was also stated in the report published by AlixPartners (2013), who further investigated what their respondents considered to be included in natural food, see Table 4 below.

How closely do the following phrases fit		
your definition of a natural food product?		
Made of 100% natural ingredients	82%	
Free of artificial ingredients	82%	
Free of preservatives	78%	
Made of at least 95 % natural	64%	
Organic	61%	
Free of GMO ingredients	61%	
Sustainable	49%	
Locally produced	44%	
Needs to be certified by a third party	36%	

Table 4 - Phrases associated with organic food (AlixPartners, 2013).

Despite lack of a unified definition, many of the articles, for instance Phillips (2015), U.S. Newswire (2013) and White (2015), focus on the increased interest in natural ingredients among consumers and the increased demand for transparency about what food contains. Among Swedish published articles, it is difficult to find any regarding natural ingredients per se. However, some focus on natural ingredients in other application areas, such as makeup and skin care products (GP, 2014).

4.4.3.2 Organic

Considering visibility illustrated in Figure 23, the number of newspaper articles published on organic food appears to have increased until 2007 after which there has been a more modest increase. The search interest reveals peaks in 2006 and 2008, but has been quite constant over the recent years, see Figure 24.



Figure 23 - The visibility of "organic food" over the last 20 years.



Figure 24 - Relative search interest in "organic food" over time.

Several recently published articles indicate on an increased consumption of organic food, often due to the perception that it provides health benefits (see e.g. Jalonick, 2015; Smith, 2015; Stout, 2015). A study conducted by Smith-Spangler et al. (2012) indicates that previous literature lacks strong evidence that organic food would provide more nutrition than conventional food, but that organic food reduce the intake of pesticide residues. Another study, conducted by Baranski et al. (2014), also shows that organic food reduce the risk of pesticide exposure. However, in contrast to Smith-Spangler et al. (2012), the study by Baranski et al. (2014) shows that organic food actually provide additional health benefits to consumers. The study shows that organic food, across regions and production seasons, have on average higher concentration of several antioxidants than non-organic food, which are linked to reduced risk of several chronic diseases, such as certain cancers. Furthermore, organic food contain lower concentration of the toxic metal Cd (Baranski et al., 2014).

Even if research indicates on health benefits linked to consumption of organic food, some of the recent published articles have been sceptical. Several articles highlight the negative aspect of organic food, for instance as it spoils faster than non-organic food due to not containing any preservatives (Baria, 2015) and the fact that it can trigger food illness due to the usage of manure slurry as fertilizer (Yates, 2015). Also the Swedish media has different opinions: Anna Blücher, an nutrition expert interviewed in Sveriges Radio (2014), claims organic food does not provide any additional health benefits, which is also supported by Asp (2013), while Emanuelsson (2014) is of the opposite opinion. However, at the same time it appears that several Swedish schools have started to serve organic meals to students (Sveriges Radio, 2015a), which indicates on a shared positive attitude towards organic food. SCB's (2004) report regarding Swedish consumers' interest in organic food, shows that 3% of the respondents prefer organic food over non-organic in general, and 52% claimed to prefer organic over non-organic in some specific types of food. In addition, according to Hygstedt and Fagerberg (2014) the proportion of organic sales of food and beverages has increased from 2% in 2004 to 4.3% in 2013. The increased demand for organic food is further indicated by the fact that the Swedish supermarket chain Hemköp recently launched a new store that only sells organic products, inspired by the Whole Foods Market in the US (Veckans Affärer, 2015).

4.4.3.3 Vegetarian

The media attention of vegetarian food has seen an overall increase over the studied period with peaks in 1998 and 2013 as illustrated in Figure 25. The relative search interest in vegetarian and vegetarianism however shows no clear change over time as seen in Figure 26.



Figure 25 - The visibility of "vegetarian" over the last 20 years.



Figure 26 - Relative search interest in "vegetarian" (the lower line) and "vegetarianism" (the upper line) over time.

The focus in several articles is on the health benefits provided by a vegetarian diet (see e.g Castillo, 2015; Dennett, 2015). However, there are several different types of vegetarians: some refrain completely from all meat-based products, including eggs, while some refrain from red meat but eat chicken and fish (Castillo, 2015). Thus, the health benefits of vegetarian food can be difficult to investigate, which the research conducted by Dwyer (1988) also states. However, Dwyer (1988) still concludes that some health benefits can be related to a vegetarian diet, such as decreased risk of obesity, atonic constipation and type II diabetes. This is also supported by the study conducted by Mangels, Messina and Melina (2003), which further suggest that vegetarian food provide health benefits in terms of reduced risk for ischemic heart diseases, lower levels of cholesterol and lower rates of prostate and colon cancer. In line with this, the American Dietetic Association and Dieticians of Canada support the notion of vegetarian food providing additional health benefits (Mangels, Messina & Melina, 2003). However, other articles raise the issue that a vegetarian diet can result in lack of essential nutrients, for instance vitamin B₁₂, calcium and iron (Craig, 2010).

Vegetarianism has been around for several decades. Ingela Stenson, trend analyst at United Minds, claim that historically there has been a vegetarian trend emerging every 30 years. In 1940 health was in focus, in 1970 the message conveyed that the food needs to be sufficient to feed the planet, in 2000 the focus was on animal rights, and lately, since 2007 the focus has shifted to include the environmental impact of what we eat. Having followed the development of vegetarianism over some time, and seeing a clear increase in especially young people adopting a vegetarian diet, she believes this is a trend that is here to stay (Oskarsson Henckel, 2015). Furthermore, the Swedish media currently focuses on the health benefits in several recently published articles (see e.g Karvonen, 2014; Prage, 2015a), even if the occasional article is of the opposite opinion (see e.g Deasismont, 2015a). Many articles also mention how vegetarian food is becoming normalised, making it an expected part of the menu rather than an anomaly (see e.g. Åkesson, 2015; Oskarsson Henckel, 2015). From articles published in Sweden, it can be concluded that vegetarian food overall have been accepted as healthy, or at least not unhealthy, since also several schools serve

vegetarian meals (Rasmusson, 2014). According to the report published by Konsumentföreningen Stockholm (2015), the sales of frozen and fresh vegetarian products in Sweden have increased with 37 % from 2010 to 2014. The interviewed Senior Brand Manager at ICA also states that she believes in a continued increase in sales of vegetarian food at the "expense" of red meat. Moreover, according to the survey conducted by Demoskop on behalf of the organisation Djurens Rätt, 6% of the Swedish population is vegetarian and 4% is vegan (Dagens Nyheter, 2014).

4.4.3.4 Locally Sourced

The media visibility of locally sourced food has increased drastically over the studied 20 years as seen in Figure 27. The search interest is displayed in Figure 28, both in terms of the specific search term "locally sourced food" and the industry for "local food". The industry shows an increase until 2009 and a slight decrease thereafter. The term locally sourced food has a major increase in search interest from 2013 but relative to the search topic "local food" it is very small.



Figure 27 - The visibility of "locally sourced" food over the last 20 years.



Figure 28 – The relative search interest for local food industry (the upper line) and locally sourced food (the lower line).

Many of the published articles in the subject have a positive attitude towards locally sourced food (see e.g Bainbridge, 2015). However, the concept is often only mentioned, and is thus not the focus of the article per se. Therefore, it is unclear if the positive attitude is due to that it is considered healthy or if it is considered beneficial for the environment. In an article written by McQuaid (2015) the reason to buy locally sourced food is, among others, discussed with the claim that consumers do this in order to feel morally satisfied. Moreover, other articles claim that locally sourced food neither provide any health benefits nor is better for the environment (see e.g Goreham, 2015). However, despite the questionable benefits, PR Newswire (2015) claimed that the consumer demand in the United States for locally sourced products are now all time high, and the reasons they buy it are that the food is fresher, the food tastes better or to support local businesses.

Scientific research in the subject has shown that locally sourced food is not necessarily better for the environment, at least not when considering green house gas (GHG) emission. The study conducted by Weber and Matthews (2008) states that it is more advantageous to reduce the production of red meat than to switch to locally sourced products, if the aim is to reduce the GHG emissions. Moreover, it is difficult to find any articles studying how locally sourced products affect consumers' health.

Swedish articles are also positive towards locally sourced food (see e.g Längberg). However, some raised the issue that locally sourced lacks a clear definition, as locally means different to different consumers and companies (Pärsson, 2015; Schmidt, 2014; Lindström, 2014). Furthermore, very few covers any health benefits of locally sourced food, but it is rather associated with supporting local business or with benefits of the environment (see e.g Möller, 2015; Schmidt, 2014). Furthermore, several also mention locally sourced together with the concept organic food (see e.g Möller, 2015; Längberg, 2014).

4.4.3.5 Fat Free/Low Fat

The visibility of low fat and fat free follows a similar fluctuating pattern, as illustrated in Figure 29. The search interest peaks around 2006-2007 and shows an overall decrease in interest over the last 10 years, see Figure 30. The low fat pattern also clearly illustrates a large increase in the beginning of every year and a decrease during every year.



Figure 29 - The visibility of "low fat" (the upper line) and "fat free" (the lower line) over the last 20 years.



Figure 30 - Relative search interest in "low fat" (the top line at the start) and "fat free" (the bottom line at the start) over time.

Many of the recently published articles have a negative attitude towards a low fat diet in terms of improving health (see e.g Heid, 2015; Ketchiff, 2015; Mercola, 2015), often due to the fact that low fat products often instead contain additional sugar (Clift, 2015; Indo American News, 2015). Low fat is however often related to weight loss in the articles (see e.g Gallagher, 2015), which in turn may or may not be positively correlated with improved health. However, scientific research has shown that a low fat diet is not as effective as a low carbohydrate diet in terms of short-term weight loss (Brehm, Selley, Stephen & D'Alessio, 2013). Furthermore, scientific research has shown that a low fat diet does not significantly reduce the risk for cardiovascular disease (Howard et al., 2006) nor colorectal cancer (Wactawski-Wende et al., 2006).

Also the Swedish media is sceptical of low fat diets (see e.g Anter, 2014; Ahlborg, 2013; Gunnarsson, 2012), even though some articles highlight that there is a lack of studies showing the long-term effects of high fat diets (see e.g Lagercrantz, 2015). However, despite scepticism of low fat, there are still several recently published articles that provide recommendations for low fat products (see e.g Karlsson, 2015; Fjaervoll, 2014).

4.4.3.6 Sugar Free/Low Sugar

The visibility of sugar free and low sugar food has seen an overall increase in number of published newspaper articles over the studied period, with low sugar food peaking in 2011, see Figure 31. The search interest in sugar free appears to have increased during 2014, see Figure 32.



Figure 31 - The visibility of "sugar free" (the upper line) and "low sugar" food (the lower line) over the last 20 years.





In the studied articles, there is a common view that sugar is unhealthy. Consequently, several recently published articles focus on how to replace products high in sugar with other products, due to the unhealthy effects (see e.g Benedetto, 2015; Spector, 2015; Spencer, 2015). Many of the articles also focus on why sugar is unhealthy, providing explanations for how it affects the human body (see e.g Pacenti, 2015). Scientific research supports this notion: for instance, a study conducted by Howard and Wylie-Rosett (2002) found that high sugar intake is related to worsening of diabetes control and can lead to weight gain, due to increase in calorie consumption. Even if Howard and Wylie-Rosett (2002) states that there is a lack of long-term trial data in this subject, i.e. definitive evidence is absent, the authors still claim that sugar intake per se is not advantageous, and that high intake of sugar therefore should be avoided. Furthermore, a study conducted by Vartanian, Schwartz and Brownell (2007) shows how high intake of soft drinks, which usually are high in sugar, was positively correlated with obesity.

In Swedish media, several articles provide recommendations for how to decrease the intake of sugar and reduce sugar addiction (see e.g. Byqvist, 2015; Deasismont, 2014a; Gunnarsson, 2014; Sander, 2010). Several articles also raise different negative aspects of high intake of sugar, such as impaired memory (Prage, 2015b; Månström, 2014), dental cavities (Ennart, 2014a) and increased risk for cardiovascular disease (Ennart, 2014b). Furthermore, several articles also focus on the negative aspects of artificial sweeteners, which often is used as a substitute for sugar (Deasismont, 2014b; Prage, 2014a).

4.4.3.7 Low/No Salt

The number of published articles on low salt appear to have peaked during 2011 and 2012 after which they have almost returned to previous levels, see Figure 33. The search interest in Figure 34 of the same terms has been quite stable over the last 5 years.



Figure 33 - The visibility of "low salt" over the last 20 years.



Figure 34 - The search interest for low salt (top line at the start) and no salt (bottom line at the start).

Many of the recently published articles in the subject salt and health state that high intake of salt could be bad for the consumer's health (see e.g Dovey, 2015; Medical Express, 2015). However, some claim that it is actually not as bad for the consumer's health as previously thought (Zaraska, 2015). According to Whoriskey (2015b) there is a consensus that too much salt could be dangerous, especially for people with high blood pressure, but the researchers disagree on how much salt is too much. The article further claims that an appropriate amount of salt depends on the individual's own needs. Scientific research supports the notion that high intake of salt has negative impact on health (Brown et al., 2009). According to He and MacGregor (2009) high intake of salt results in raised blood pressure, which in turn is a major risk factor for cardiovascular disease. Another study, conducted by Strazzullo et al. (2009) concludes that the risk for cardiovascular disease and stroke increases significantly with high intake of salt, and they support substantial population reduction in salt intake in order to mitigate this risk.

The Swedish media also recommend consumers to reduce their intake of salt (see e.g Antonsson, 2015; Asp, 2014; Cardell, 2014; Kihlberg, 2015). However, according to the article written by Deasismont (2014c) the experts in Sweden have nevertheless different opinions about salt: Lena Hulthén, professor of clinical nutrition, claims that salt is bad for health and that the majority of the Swedish population eats too much salt, while Annika Rosengren, professor of medicine, states that there are no evidence for how much salt is too much, and that consumers should not worry about the salt intake unless they eat substantial amounts of processed food.

4.4.3.8 Low Cholesterol

The visibility of low cholesterol has seen an overall decrease over the studied period but peaked during 2011 as seen in Figure 35. The relative search interest in a low cholesterol diet appear to have decreased over the studied period, see Figure 36.



Figure 35 – Visibility of "low cholesterol" over the last 20 years.



Figure 35 - Relative search interest in "low cholesterol".

There seems to be a common view that high levels of cholesterol is bad for the health, which is indicated by several articles recommending food to reduce consumers' cholesterol levels (see e.g. Bunch, 2015; Kannan, 2015; Lynn, 2015). One of the articles recommend consumers to reduce their intake of red meat and dairy products in order to reduce cholesterol levels, claiming high cholesterol could lead to atherosclerosis, heart attack and stroke (Warner, 2014). Furthermore, an article published in Medical Daily stated that a diet high in saturated fat could increase the levels of bad cholesterol, which can damage arteries and increased production of beta-amyloid plaques in the brain, which in turn can cause Alzheimer's disease (Caba, 2015). However, the Dietary Guidelines Advisory Committee in the US excluded their recommendations of limiting the intake of cholesterol and high levels of cholesterol in the blood (Dietary Guidelines Committee, 2015).

Scientific studies also show different results in this regard. Some studies support the notion that cholesterol is a risk factor for coronary heart disease, i.e. one type of cardiovascular disease (Goldman et al., 1992). However, another study showed that there is not a strong association between high blood cholesterol and cardiovascular deaths among women (Hulley, Walsh & Newman, 1992). Furthermore, according to Stanley's (2010) review of previously studies in the subject, studies showing correlations between dietary cholesterol and risk of cardiovascular disease have been small and of questionable quality, while larger, better designed and more recent studies have not been able to find the same correlation. Moreover, Stanley (2010) states that dietary intervention trials have shown that the human body actually manages increased intake of cholesterol, through reducing the cholesterol absorption and inhibiting the endogenous cholesterol synthesis, which hence stabilises the cholesterol levels and minimises the risk of cardiovascular disease.

Nevertheless, most of the articles published in Sweden support the notion that high levels of cholesterol is bad for the health (see e.g Jannerling, 2010). However, one article discusses the fact that there are different opinions regarding if cholesterol actually is bad for the health, but concludes that there are strong evidence supporting the positive correlation between high cholesterol levels and cardiovascular disease (Wångersjö, 2008). The article further suggests that consumers might get confused as people with diabetes often risk cardiovascular disease despite low levels of cholesterol. Another article states that cholesterol in food and cholesterol in the blood is not necessary correlated for most people (Bojs, 2015).

4.4.3.9 High Protein

The visibility of high protein food has seen an overall increase over the studied period, and peaked during 2004 and 2012, see Figure 36. Considering the user interest in Figure 37, it appears to have increased steadily over the last 15 years, also with a clear increase in the beginning of every year similar to low fat.



Figure 36 - The visibility of "high protein" food over the last 20 years.



Figure 37 - Relative search interest in "high protein" (the upper line) and "high protein diet" (the lower, dashed line) over time.

The interest in a high protein diet appears to have increased lately both related to sports nutrition and other claimed health benefits. For example, the sales of quark and cottage cheese increased with 137% over the period 2010-2014. However, the sales of red meat, another source of protein, has decreased somewhat during 2014 which is a break in a long trend of consistently increasing consumption (Konsumentföreningen Stockholm, 2015).

Most recent media attention mainly claims that it is unnecessary and could be unhealthy to follow the popular high protein diet. For example, Strömberg (2015) means that high protein products is solely a way for manufacturers to sell products with higher margins, as experts mean it is completely unnecessary to consume products with added protein. There are also articles focusing even more on negative effects, claiming a high-protein diet causing kidney damage and harming the digestive system (Wilson, 2015) as well as increasing the risk of cardiovascular disease (Morgan, 2015; Reinberg, 2015) and causing weight gain (Saul, 2015).

Nutritionist Sundin (2015) discusses whether what she calls the "protein hype" is an actual need or a made-up concern. She concludes that it is easy to reach sufficiently high protein levels with a normal diet,

but also that a high protein diet is not likely to have a negative effect on healthy people. Gudiol (2014) additionally claims that there are theoretical benefits of a diet with protein intake far larger than recommended, but no positive effects have yet been proven.

4.4.3.10 High Fiber

As illustrated in Figure 39, the visibility of high fiber food peaked in 1999 and has seen a steady increase thereafter. The user interest appears to have been quite stable over the researched period, and seems to follow a similar pattern increasing in the beginning of every year after 2009, see Figure 39.





Figure 39 - Relative search interest in "dietary fiber" over time.

Many of the recently published articles have a positive attitude towards food with high fiber (see e.g. Amidor, 2015; Borreli, 2015; Gunnars, 2015; Kelland, 2015; Tomlinson, 2015). However, high fiber food is primarily related to a healthy diet, but is per se not the focus of the article (see e.g Kyraicou, 2015). Some articles state the health benefits of such diet, for instance in terms of reduced risk of developing chronic lung disease (Reuters, 2010), reduced levels of cholesterol and reduced risk of obesity (Carbone & Brown, 2015). This is also supported by scientific research: the study conducted by Lindström et al. (2006) shows that a high fiber and low fat diet is beneficial for long term weight loss and decreased risk

for type 2 diabetes. Furthermore, high intake of dietary fiber is associated with reduced risk of cardiovascular disease (Estruch et al., 2009) and colorectal cancer (Aune et al., 2011).

Swedish media has mostly a positive attitude towards fiber, both in recently published articles (see e.g. Sahl, 2014; Schults, 2014; Spross, 2014; Örnberg, 2014) and in older ones (Persson, 2010). However, there are also some articles that discuss negative aspects of too high fiber intake in terms of stomach problems (Forsberg, 2011; Östman, 2008).

4.4.3.11 Food Fortification (Vitamins)

The visibility of vitamin fortified food is below displayed in terms of four search phrases including food fortification, due to the low search results for vitamin fortification. Vitamin fortified peaked around 2006 and has declined somewhat since then. Vitamin fortification has remained steady over the period studied. Food fortification on the other hand has increased as illustrated in Figure 41 below. It should be noted that the absolute number of newspaper articles published are very low for all these phrases compared to other health attributes investigated. The relative search interest if vitamin fortified and fortification were too small to display, hence Figure 42 displays the search interest in the broader search topic food fortification instead.



Figure 40 - The visibility of vitamin and food fortification over the last 20 years, see specific search terms in the figure.



Vitamin fortification belongs to the category of food fortification. Food fortification is by the World Health Organisation (WHO) defined as "the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals (including trace elements) in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health" (WHO, 2006, pp xxvii). Fortification may be done both in purely commercial purposes as well as in line with a public health policy to decrease the number of people with a certain deficiency. Any product could be vitamin fortified and hence the sales of these types of products are difficult to display. Using an example, the sales of vitamin/energy/recovery/sports drinks have increased with 80% during 2010-2013 (Konsumentföreningen Stockholm, 2015).

There are few articles recently published on the topic of vitamin fortification. Many Swedish articles focuses on vitamin D, claiming people in the north often suffer from deficiency during the winter months due to little time spent in the sun and insufficient levels reached from their diets. Thus, many advocate for higher levels of vitamin D fortification in food (see e.g Bejerot & Humble, 2015; Nygren, 2014). Consequently, the Swedish Livsmedelsverket recently proposed an increase in the fortification of vitamin D in our food late last year. This has however also been criticised by some researchers, claiming that such fortification should be directed to specific risk groups, as there are studies indicating that too much vitamin D may be harmful (Wicklén & Merckx, 2014; Nygren, 2014).

4.4.3.12 Gluten Free

The visibility of gluten free has significantly increased over the last years as seen in Figure 43. The search interest also shows a significant increase, with what appears to be a peak in 2014 and a slight decline at the end of 2014 and 2015, see Figure 44.



Figure 42 - The visibility of "gluten free" over the last 20 years.



Figure 43 - Relative search interest in "gluten free" over time.

The interest in a gluten free diet has significantly increased over recent years, claiming to help against stomach problems as well as various other diseases. Nielsen (2014) report a 28% increase of gluten free product sales in Sweden during 2014. Christina Karlsson, nutritionist at ICA, similarly claims that their gluten free sales increased with 25% in 2014 and that they believe in a continued trend and are expanding their gluten free selection (Ennart, 2015b), which the interviewed senior Brand Manager at ICA also mentioned. United Minds has concluded that 1 out of 10 swedes already avoid gluten, and as much as 1/3 of Americans do the same (Ennart, 2015a). This in spite of the fact that only 1 percent of the Swedish population are diagnosed with gluten intolerance, i.e. Celiak disease, and even fewer are allergic to wheat (Livsmedelsverket, 2015).

Scientists have recently raised several risks with a gluten free diet that many articles bring attention to, including that people self diagnose themselves incorrectly and fail to seek help for what could be more serious problems (Ennart, 2015b). There are also articles highlighting how gluten free diets are not healthy for everyone, and that it is preferable to avoid such a diet unless it is necessary due to intolerance (Prage, 2014b; Vox, 2015). The Swedish Livsmedelsverket has also put out warnings about this type of diet, claiming that there is scientific proof that almost everyone benefits from eating whole grains, as it has been proven to reduce risks of cardiovascular disease (Ennart, 2015c). Many current articles refer to the gluten free diet as a fad and to the underlying scientific evidence as being in an early stage with no actual proof of whether the diet is good or bad for people without Celiac disease or wheat allergy (see e.g. Prage, 2014b).

4.4.3.13 Lactose Free

As seen in Figure 45 and Figure 45 below, lactose free has increased both in terms of visibility and user interest, primarily since 2009.



Figure 44 - The visibility of "lactose free" over the last 20 years.



Figure 45 - Relative search interest in "lactose free" over time.

In line with the free-from movement, the interest in a lactose free diet has also increased and is used as a claimed remedy for stomach problems. Nielsen (2014) report a 14% increase of lactose free product sales in Sweden during 2014. The interviewed Senior Brand Manager at ICA also states that they believe in increasing sales of lactose free products. However, only 4-10 % of the Swedish population is lactose intolerant, which is relatively few compared to other regions in the world (Hernell, 2015).

Many recent articles highlight the unnecessary aspects of changing to a lactose free diet. For example, Asplund (2014) claims that lactose free products are expensive and often unnecessary, as most dairy products contain a very small percentage of lactose. The author means that manufacturers have much higher margins on lactose free products and hence promote these types of products to an unnecessary extent. Demred (2015) also highlights that people not suffering from lactose intolerance does not gain anything from a lactose free diet. In addition, this article claims that even most people with lactose

intolerance can consume small amounts of lactose every day, and that it is often enough to exclude products with a very high lactose contents.

Despite indications that a lactose free diet does not benefit people without intolerance, there is also recent media attention promoting a reduced intake of milk products. Deasismont (2015b) claims that the role of milk as a base in everyone's kitchen should be questioned, as experts claim there is actually nothing unique in milk that cannot be obtained from other sources. In the same tone, Örwall Lovén (2014) means that new studies show that a high consumption of milk among women can increase the risk of fractures and lead to an early death.

4.4.3.14 GMO Free

GMO free has significantly increased both in terms of visibility and search interest since 2012, as seen in Figure 46 and Figure 47 below.



Figure 46 - The visibility of "GMO free" over the last 20 years.





GMO stands for Genetically Modified Organisms. The European Commission (2015) defines Genetic modification as the use of modern gene technology to artificially modify genetic material to breed plants with desirable characteristics. Such characteristics may for example include an improved quality, nutritional value or resistance against certain diseases, insects or drought (European Commission, 2015).

The environment and health effects of genetic modification are quite controversial, and there are numerous very recent newspaper articles published on the topic of GMO free food. Most articles focus on the possibilities and necessity of GMO to save the environment and reach sufficient effectiveness of production, and often emphasise the fact that some kind of genetic modification has been going on for centuries, simply using different techniques (see e.g. Sempler, 2015; Jakobsson, 2014; Miller, 2015). Articles also emphasise that in the EU there are currently very thorough controls of plants that are artificially genetically modified, and that the inconsistency lies in that only some types of breeding techniques are being controlled (Ektander, 2014; Sempler, 2015). The European commission recently issued a proposal of new rules enabling members of the European Union to stop their import of genetically modified products. Dagens Nyheter (2015) among others claims that the proposed regulations are overly cautious, as the very extensive research that the EU has invested in does not back up such strict regulations. Instead, some articles claim that environmental organisations have politically forced regulators to use unnecessary caution that does not benefit the farmers or the environment (Dagens Nyheter, 2015; Sempler, 2015).

There are however also a variety of articles advocating for taking great caution when legislating genetic modification as the effects are not yet fully explored, and the environmental and health effects could be very difficult to stop if genetic modification turns out to be more hazardous than expected (see e.g. Schylter, 2015). Research on GMO and the effects of such manipulation has been extensive, especially research initiated by the EU (Dagens Nyheter, 2015) but much more research is also claimed to be needed to fully understand environmental and health effects of genetic modification (Sveriges Radio, 2015b). Considering the consumers, a trend analysis by United Minds (2014) concludes that consumers in general are prone to favour natural food, but as millennials are more pro-science than earlier generations, they are likely to embrace the new techniques of genetic modification in the future.

4.5 Trends Influencing the Health Food Industry

In order to further understand the development of the health food industry, also trends in general will be identified and further explained in this chapter. This is done by firstly outlining the largest global macro trends as they may directly or indirectly influence and shape consumers' perceptions of what food are considered healthy today as well as will be in the future. Thereafter, the effects these trends have on consumers' behaviour will be outlined.

4.5.1 Macro Trends

This chapter outlines the current largest macro trends that could have impact on the health food industry, divided into trends within technology, demography, economy and environment as illustrated in Table 5 below. The full data of current macro trends coded into categories may be found in Appendix 3.

Tab	le .	5 -	A	summary	of	^r macro	trends	expected	to .	have impact	on th	he	health	food	indus	try.
-----	------	-----	---	---------	----	--------------------	--------	----------	------	-------------	-------	----	--------	------	-------	------

Macro Trends	
Technology a continued large role in growth	Ubiquitous connectivity
Shift in global demographics	A growing middle class in emerging countries
	An ageing population in developed countries
Increasing resource demand while handling	Intensified competition for finite natural resources
environmental concerns	
	Increasing strain on the environment

Within the field of technology, the overall trends point towards objects and people being increasingly connected, which will produce large amounts of data and possibilities to analyse and act upon acquired knowledge in real-time. One strong trend driving this development is the ubiquitous connectivity, meaning that internet connectivity to an increasing extent is available anywhere and at any time (Bain & Company, 2011; BCG, 2012; Euromonitor International, 2012; Gartner, 2014; Global Trends, 2014; McKinsey & Company, 2010). This has for example changed how consumers shop and pay, and most purchases are predicted to have some online aspect by 2020 (BCG, 2012).

Looking at the global demographics, a strong trend includes the emerging middle class in developing countries that will form an entirely new and larger consumer base with different needs than the existing consumer base (Euromonitor International, 2012; MCE, 2012; Bain & Company, 2011; McKinsey & Company, 2010). In developed countries the trend is on the other hand moving towards an increasingly older population that will demand new types of services and goods (Euromonitor International, 2012; McKinsey & Company, 2010). Hence, companies will need to adapt to a changing and expanding consumer landscape over the coming years.

The world's emerging middle class, population growth and increasing prosperity will fuel an intensified competition for finite resources (Bain & Company, 2011; MCE, 2012; Global Trends, 2014; Wagner, 2015). Without any radical new innovations or findings, the supply of primarily oil but also other commodities is unlikely to keep up with the demand (Wagner, 2015) and the constraints on the usage of natural resources are likely to increase (McKinsey & Company, 2010). Combining this intensified competition with environmental concerns is expected to become increasingly difficult (Euromonitor International, 2012; Global Trends, 2014; Wagner, 2015). This has resulted in efforts such as working towards a circular economy (Global Trends, 2014) and changes in consumer behaviour including a wish to consume more sustainably (BCG, 2012).

4.5.2 Consumer Behaviour

New technologies, demographic changes and the climate change have fundamentally affected consumer behaviour. Technologies have made consumers empowered and discriminating, due to the possibility of comparing, scrutinizing and reviewing products. Consumers can therefore make more informed decisions and are more used to share their complaints openly and widely, which makes companies increasingly pressured to add meaningful value to products (BCG, 2012). This trend is apparent in the food industry, where consumers are increasingly aware of ingredients (Food & Friends, 2014; Bruce, 2014) and require proof for companies' initiatives (French, 2014). This is both related to proof of product outcomes, where consumers are seeking scientific support to a larger extent (Zacka, 2014), as well as related to the fact that consumers are seeking a deeper meaning for purchasing a particular product, which makes the companies required to find and communicate a meaningful purpose of their business (French, 2014).

The climate challenge and scarce resources has increased the interest in sustainable and responsible consumption, and products are to an increasing extent required to be organic and locally produced with limited waste (BCG, 2012; MCE, 2012; Euromonitor, 2015, Canadean, 2013). In terms of food consumption, the Natural Marketing Institute (2014) states that consumers in America consider locally produced and organic food as more healthy, which also is supported by Goetzke & Spiller (2014). Thus, the research suggests that there is a trend in the US that food produced more closely to Mother Nature is perceived as healthier than conventional processed food. This is also supported by United Minds (2014), that states that there is a trend towards externalising health, implying that health food are not only related to the individual health but also with the health of the environment.

Looking at retail trends to 2020, BCG (2012) predicted a new age of targeted marketing derived from an increasing availability of data on consumer behaviour. Ubiquitous connectivity has given rise to a fundamental shift from store to online retail of goods, posing a large challenge to the traditional retailers. At the same time, the power of the retailers is increasing as the market matures and consolidates (BCG, 2012). However, the power may shift to large online retailers as their growth may outperform that of the traditional retail stores. Looking at the food industry, consumers are starting to dislike mass production to a larger extent, and instead they desire smaller, more unique brands (Food & Friends, 2014; Bruce, 2014, Canadean, 2013).

5. Analysis

The analysis begins with outlining a definition of health food. Thereafter, the specific characteristics of health food outlined in the empirical study will be analysed in terms of where they are positioned in the hype cycle. This is followed by an analysis regarding how to interpret the hype cycle when applied on health food attributes, and how this may differ from traditional application of Gartner's hype cycle. Finally, this is followed by an analysis of how to manage the current hypes and trends within the health food industry in order to create long-term growth.

5.1 Analysis of the Health Food Industry

The first chapter in the analysis aims to analyse the empirical data and answer the first research question: *what characteristics currently define health food*? Thus, the first section aims to analyse what influences consumers' perceptions of health food and develop a broad definition, which then will be followed by an analysis of the survey in order to discuss what characteristics currently are associated with health food.

5.1.1 Definition of Health Food

The empirical study has revealed the difficulty in developing a clear definition of health food. This is due to the shifts in underlying scientific paradigms over time, the extensive attention in media fuelling hypes and the individual nature of health and what is perceived as healthy. The definition of health food is therefore dynamic rather than static and will need to be revised over time. The definition in this report will thus be based on the current scientific paradigm, while taking into consideration that these common beliefs will change when new findings are made.

The history of dietary advice clearly displays that the health food industry is strongly influenced by scientific paradigms. In accordance to Kuhn's (1962) theory, two pre-paradigmatic schools seemed to appear within health food during the 1970s. After competing against each other, one got widely accepted, which resulted in dietary advice in the form of reducing fat consumption in general and trans-fat consumption in particular. However, the historical summary also illustrates how inaccuracies within the scientific paradigm, i.e. the fact that obesity and diabetes increased as the dietary advice got widely accepted and trusted, finally reached the point where they no longer could be ignored. Hence, there appears to currently be a shift in paradigms in dietary advice, where the focus has shifted towards the negative effects of sugar and carbohydrates. However, it is unknown for how long this new paradigm will persist, as dietary advice is likely to change over time as new scientific knowledge emerges.

The new scientific paradigm in health food is visible in the Nordic Nutrition Recommendations described in Chapter 4.3, as they recommend limiting food and beverages with added sugar, as well as exchanging

refined cereals with whole grain cereals. However, it is still suggested to replace butter with vegetable oils and high fat dairy with low fat dairy, which is in line with the paradigm of reducing fat consumption. Hence, it appears that the Swedish government is cautious when changing their suggestions of what food is healthy to consume. It can be argued that it is their role to be careful when recommending new dietary patterns, especially before the effects of a particular diet has been thoroughly researched. Thus, the government needs to be slow when adapting to new trends and research, making these recommendations often lag behind new research findings on what is healthy to consume. However, these recommendations appear to most likely still set the foundation of what the Swedish population believes constitute health food, and could therefore provide an indication on what could be associated with health food.

The empirical study also reveals that social, cultural and economic aspects play a major role when defining health food. Not only does scientific knowledge about nutrition impact the consumers' beliefs of what constitutes health food but also media and other social aspects. Thus, the health food industry is not only difficult to define due to the emergence new scientific knowledge and shifts in scientific paradigms, but also since the consumers' perceptions of health food are influenced by their social context. Thus, as Figure 48 below illustrates, what constitutes health food is influenced by several aspects, making the definition of health food dynamic.



Figure 48 – Influences on consumers' health food perception.

Due to the dynamic nature of health food, health food will in this report be broadly defined as food that is *perceived* as healthier than other food, and thus providing some kind of *perceived* health benefit to the consumer. What food that is perceived as healthy is individual but affected by the current scientific paradigm, such as the Nordic Nutrition Recommendations, the social context and what is highlighted by media. Thus, the definition of health food will change over time.

The attributes currently associated with health food has been divided into the following categories as presented in the empirical study and Table 6 below. These categories can be used to provide a more specific definition of what currently defines health food. As the categories may include several specific health characteristics, they can be assumed to persist for longer than specific attributes. However, it is important to still keep in mind that the definition of health food is dynamic, meaning that these categories may also change in the future.

Back to Basics Environmental and Socioeconomic Concerns		Less is More	Functional Food	Free From	
Natural Ingredients	Organic	Fat free/low fat	High protein	Gluten free	
	Vegetarian	Sugar free/low	High fiber	Lactose free	
		sugar			
	Locally sourced	Low or no salt	Vitamin fortified	GMO free	
		Low cholesterol			

Table 6 - Overview of the health characteristics identified as most important, as presented in the empirical study.

5.1.2 Survey Analysis

The rating of importance has been presented in terms of how many users rated an attribute very important, somewhat important (i.e. at all important) and also with regards to how segmented the overall answers are in Chapter 4.4.3. Firstly, considering the stacked bars in Figure 6, natural ingredients, GMO-free and organic are the attributes that most respondents have rated very important, while low cholesterol and gluten free are at the bottom. On the other side of the spectra, the attributes that most respondents rated very unimportant are lactose and gluten free products, where more than 50% of the respondents consider these very unimportant as health attributes. When instead rating the characteristics according to whether they are at all considered important, as in Figure 7, natural, sugar free and organic tops the list of importance and GMO-free is only the 8th most important attribute, because the answers are more fragmented for this attribute compared to the others. Regarding the willingness to pay more for an attribute, the ones that are ranked highest are natural ingredients, organic and locally sourced. More than 80% of the respondents have claimed to be willing to pay a premium for these three attributes. Locally sourced stands out with a much higher willingness to pay than importance, which may be due to that people do not consider this attribute important for the health, but may still be willing to pay more due to for example perceived environmental benefits.

The results from the conducted survey among Swedish millennials differ from the AlixPartners (2013) report of US superusers and Nilesen's (2015) report on worldwide consumers in terms of the overall results. Firstly, the survey performed in this report has resulted in higher overall percentages of
respondents considering an attribute very important and percentages willing to pay more. This could be related to that this survey was made on millennials only, and these rate importance of healthy attributes the highest. In addition, in the survey the percentage willing to pay more is consistently higher than the percentage rating an attribute very important, which is not the case in the two other investigations. This is most likely due to how the willingness to pay is defined. The question in the survey had only a yes or no answer, and did not consider to what degree the respondent would be willing to pay a premium for the feature. Nielsen (2015) for example instead let the respondent choose between very willing, slightly willing and not willing to pay a premium.

Considering Figure 50 below where all characteristics have been plotted against the willingness to pay; the three attributes organic, locally sourced and natural ingredients stand out as the ones with the highest willingness to pay in combination with a high importance. The willingness to pay is however relatively higher than the importance rating, seen by the fact that they are positioned above the line. That could imply that there are other reasons than health that make these customers willing to pay more. As stated by United Minds (2014), there is a trend towards externalising health, meaning it is no longer enough to eat well for one's own health but also improving the climate should be considered when choosing what to eat. This may be the reason for attributes related to environmental impact having a higher willingness to pay than health importance. This also implies that firms within the health food industry may consider products with both environmental and health benefits in order to charge a premium for their products.



High Value Attributes

Figure 49 - Importance of all characteristics plotted against the willingness to pay for these.

5.2 Hype Cycle Analysis

This chapter of the analysis aims to analyse where the health food attributes are positioned in Gartner's hype cycle. As stated in Chapter 2.4, some innovations fall off the hype cycle and become replaced with other technologies aiming to achieve the same goal. Hence, in some cases, an underlying issue or need could be considered a long-term trend, while the means to achieve it may vary. This is also likely to be the case of the health food industry, where the need for better health or to live longer can be considered an underlying megatrend among consumers, whereas the means to achieve this in terms of food attributes or diets may vary over time, which thus makes it interesting to identify where the attributes are currently positioned. Thus, the first part of this chapter will position each health food attribute, which will then be followed by a summary of identified short- and long-term growth opportunities. The positioning of health attributes will also provide an understanding of how Gartner's hype cycle could be applied on health food characteristics, which will further be discussed in chapter 5.3.

5.2.1 Analysis of Health Attributes

This part of the analysis aims to position the different health characteristics in the hype cycle, in order to identify which are hypes and which are megatrends, as well as what hypes that are expected to become fads versus megatrends. The attributes are plotted as different symbols in the hype cycle, according to whether they provide growth opportunities or not. The circular symbols illustrate long-term growth opportunities, the triangular refer to short-term growth opportunities and the cross indicates on limited future growth opportunities.

5.2.1.1 Natural Ingredients

The perceived importance of natural ingredients when consuming healthy food varied between the three compared surveys, where it was ranked in the middle according to AlixPartners (2013) but second highest in Nielsen's (2015) and highest in the survey of this study among Swedish consumers. Since the latter two were conducted two years later, these results might indicate that natural ingredients have become more important among consumers in recent years.

The number of published articles in the subject has steadily increased between the years 1994 to 2005, and has since then increased even more significantly. The search interest the past ten years has been rather stable, except from a short peak in 2006. However, it is not clear what implications may be drawn from these data, as the definition of natural ingredients is in itself unclear. The unclear definition was also the focus in many of the articles on the topic. The fact that there is a lack of common definition of natural ingredients also make it unclear how to interpret the survey results: it is possible that the majority of the respondents perceive the word natural as healthy, but that they in reality have different opinions what the

concept natural food actually means. This is likely to have contributed to the high ranking, as the attribute can be interpreted in any way the respondent likes. The unclear definition is also supported by AlixPartners (2013) that have investigated what phrases consumers associate with natural food. Both organic, GMO-free and locally sourced make the list of phrases defining natural food. This implies that the future of these attributes will contribute to dictate whether natural food becomes a megatrend or a fad.

The lack of an established definition of natural ingredients leads to a difficulty in determining whether or not it is actually healthy, and also leads to media speculating widely about its benefits. Such speculations usually indicate on a hype. It is also difficult finding scientific studies on the subject of natural ingredients and health, which further suggests that this is a rather new subject that is hyped among consumers and media. Intuitively, natural ingredients is a concept that is easily perceived as healthy, and is difficult to question it in terms of health benefits: how could natural ingredients *not* be healthy? This implies that this health attribute may become a more long-term trend, simply because it is difficult to argue against. However, natural food may on the other hand not necessarily be healthier than other food.

Even though natural ingredients currently is a hyped concept, lacks a common definition and hence also lacks in scientific studies proving clear health benefits, there are still indicators of long-term opportunities in this regard. The macro trend of ubiquitous connectivity enables consumers to obtain information wherever they are located, and consumers have become increasingly aware of the ingredients in food and wants to understand what they actually eat. This speaks in favour for natural ingredients, as they are easy for consumers to understand. Combining this with the fact that the survey and the previously conducted reports have shown that a large proportion of consumers are willing to pay a premium for such characteristic as well, indicates that this may be a lucrative attribute with long-term potential. The high willingness to pay could however also be affected by the fact that natural food is currently hyped.

As illustrated in Figure 51 below, natural ingredients is positioned on the peak of inflated expectations. Based on the analysis above, the concept is believed to have the possibility of becoming a future megatrend, and is therefore also believed to provide long-term growth opportunities within the industry.



Figure 50 - Positioning of natural ingredients in the hype cycle.

5.2.1.2 Organic

In the reports by AlixPartners (2013) and Nielsen (2015), organic food seems to be somewhat important to the respondents, but was not ranked among the most important characteristics. This is different from the survey results in this thesis among Swedish millennial consumers, where organic was ranked the third most important attribute both among enthusiasts and other consumers. This may indicate on cultural differences or differences between millennials and other generations. Moreover, the survey results are not very fragmented in terms of importance, i.e. many rated organic very important, somewhat important or neither important nor unimportant, and thus only a few considered it unimportant, which further speaks in favour for that there could be a general positive attitude towards organic food.

The number of published articles in the subject organic food increased significantly in between 2005 and 2007, whereupon it has somewhat stagnated. The search interest was around its highest between 2006 and 2008 and has decreased somewhat thereafter. The drop might be an effect of the financial crisis in 2008, which may have resulted in lower interest in organic food due to the fact that it is more expensive than non-organic. However, the lower interest after 2008 also seems to follow the same pattern as the published articles in the subject. The visibility and user interest indicates that there may have been a hype of organic food around 2007. Furthermore looking at the consumption of organic food in Sweden, 52% of the respondents in SCB's report claimed to prefer organic, at least in particular food. These data were retrieved in 2004, but the fact that the proportion of organic food sales has increased by 115% from 2004 to 2013 implies that this number is currently the same or has increased. According to the diffusion curve, the first 50% of the potential adopters refer to the groups called innovators, early adopters and early

majority. Hence, the concept organic food appears to have reached at least the group early majority, which indicates that it also has reached the plateau of productivity in the hype cycle. Thus, organic food has probably become a megatrend.

The empirical study reveals that there are several scientific studies showing health benefits of organic food, in terms of reduced intake of pesticide residues, higher concentration of antioxidants and lower concentration of Cd. This indicates on scientific support for that organic food actually provides health benefits, which in turn suggests that this could be a long-term trend. However, as the history of dietary advice has shown and in accordance to the theory of scientific paradigms, scientific claims might change in the future. Another indicator of organic food as a long-term trend is the macro trend of an ongoing environmental concern, which has increased the interest in sustainable and responsible consumption often related to organic production methods.

Based on the analysis above, organic food are suggested to have reached the plateau of productivity in the hype cycle, see Figure 51 below. Thus, it has become a megatrend, and it is also considered a high value attribute enabling premium prices.



Figure 51 - Positioning of organic food in the hype cycle.

5.2.1.3 Vegetarian

According to the survey conducted in this thesis, the characteristic vegetarian was overall not considered very important as a health characteristic. The opinions were however highly fragmented, which indicates that vegetarian food may be considered controversial to some extent. It should also be considered that

vegetarian food may not be primarily associated with health benefits for some consumers, but rather with other aspects such as environmental concerns and animal welfare.

Vegetarian food seems to have gained new media attention in recent years. Furthermore, the number of published articles is approximately 50 000, which is a very high number compared to the other investigated attributes. The search interest on the other hand appears to have been relatively stable over the past ten years. Analysing the vegetarian articles qualitatively, most articles have a positive attitude towards vegetarian food but some are of the opposite opinion, which is similar to the fragmented survey results. The 37% increase in sales of vegetarian products in Sweden however indicates on an increased interest in vegetarian food, even though only approximately 6% of the population currently claim to be vegetarians. The number of vegetarians are however increasing, especially among younger generations, also indicating on an increase in adoption. In addition, there are several different types of vegetarians, some simply decreasing their intake of meat. This implies the adoption of a vegetarian or semi-vegetarian diet is higher than 6% and increasing.

A vegetarian diet is partially consistent with the Nordic Nutrition Recommendations, as these suggest reducing the intake of red meat and processed meat and increasing the intake of vegetables. However, decreasing the intake of meat is evidently not the same as completely excluding meat, and the Nordic Nutrition Recommendations also suggest increasing the intake of fish and seafood, which is not in line with a vegetarian diet. Moreover, even if some scientific studies indicate on health benefits linked to a vegetarian diet, others have shown that such a diet might lack in particular nutrients. Hence, there are different opinions also in this regard. However, the health benefits combined with the increasing availability of supplements and fortified products that may solve the issue regarding lack of nutrients suggest that vegetarian food may hold up as a healthy alternative in the future. Furthermore, the concept of vegetarian food is also related to the macro trend regarding environmental concerns, indicating on further growth potential.

Vegetarianism has gone through several hypes over the last decades, and the latest hype seem to have followed from an increased interest in environmental concerns around 2013. The different waves of vegetarianism have been induced by several different underlying concerns, such as health, environment and animal welfare. The recent increasing sales and adoption among younger people in combination with vegetarian options becoming an expected part of the menu indicate that the number of consumers choosing a partial or full vegetarian diet is growing. There also appears to be evidence of health related benefits from a vegetarian diet, and there are several reasons apart from health benefits that may make people adopt a vegetarian diet, indicating long-term growth potential. As the tone of articles is moderately

positive, and they focus on results and applications of a vegetarian diet, this is not deemed to be a hype, but rather be rising in the slope of enlightenment towards becoming a megatrend, see Figure 53.



Figure 52 - Positioning of vegetarian food in the hype cycle.

5.2.1.4 Locally Sourced

Locally sourced food was not considered as one of the most important attributes in the survey conducted by Nielsen (2015), and only somewhat important in the survey by AlixPartners (2013). Similarly, locally sourced was ranked seventh most important in the survey of this study among Swedish millennials. However, despite the moderate beliefs of its importance in terms of health food, more than 80 % of the respondents of the survey were willing to pay a premium for locally sourced food. One reason for this could be other perceived benefits associated with locally sourced food, such as supporting local farmers or reducing negative impact on the environment. This could also explain the fact that this was the only characteristic in the survey that was considered more important among non-enthusiasts compared to enthusiasts, indicating on other reasons for importance than health benefits.

The number of published articles on the subject locally sourced has increased drastically since 2006. The search interest has also increased between 2006 and 2009, although not with a curve as steep as the number of publications. After 2009 it has however seen a slight decrease. Considering the tone of recent articles, there appears to be an overall positive attitude towards locally sourced food, indicating it is hyped. It is however unclear whether this is due to health benefits, environmental concerns or other reasons. Moreover, the difficulty in finding scientific articles studying locally sourced food and its impact on consumers' health indicates that this is not generally associated with health benefits. This may not seem very surprising: why would food be healthier simply because it is produced in the local area? In this

regard, some articles refer to locally produced food as more fresh, which thus might be perceived as healthy. Furthermore, the idea that consumers might consume locally produced food in order to feel morally satisfied is also highly interesting, and could explain why so many were willing to pay a premium for such characteristic according to the survey.

It is possible that some consumers purchase locally produced food because they believe it has better quality and as they are familiar with how it has been produced or in order to reduce their GHG emissions, meaning they attempt to purchase food with less impact on the environment. Thus, locally sourced is related to the macro trend regarding environmental concerns. However, it has been shown that locally sourced food does not necessarily have a beneficial effect on the environment, which thus implies the underlying substance of this hype is low and that it is likely to become a fad. Locally sourced food could also be related to the trend that consumers are starting to dislike mass production, and instead prefer small and unique brands. Hence, it is possible that locally sourced food will continue to attract consumers in the future, especially if the consumers also believe they are supporting local businesses.

The increasing number of positive articles with a speculative tone indicate that the characteristic locally sourced is positioned on the peak of inflated expectations in the hype cycle as seen in Figure 54. The question is whether this will become a fad or a megatrend in the future. Media is focuses on the environmental benefits of locally sourced food that scientific research has however not shown any evidence of, which implies that this will become a fad. It is however possible that this will not happen yet, and that it may gain a lot more attention in the short term due to that it is associated with smaller unique brands as well as with the health attributes organic and natural food.



Figure 53 - Positioning of locally sourced food in the hype cycle.

5.2.1.5 Fat Free/ Low Fat

The previously conducted studies show different results regarding low fat as a health attribute. In Nielsen's (2015) study, low fat could be found in the least important half and in AlixPartners' (2013) study it was ranked top four. The results from the conducted survey of this thesis is in line with Nielsen's (2015) results. This could be due to that the reports and this survey have targeted different geographic markets and different users, or due to that consumers' perception of this attribute has started to change recently.

The number of published articles in newspapers is high in the subject low fat, with a peak in 2012 of approximately 25 000 articles. However, the concept has gained less media attention since then. In addition, the search interest has declined during the investigated years, except for a peak for "fat free" in 2006. Based on this, it seems that the interest in low fat products is decreasing among consumers. This might be due to the shift in scientific paradigm, which is indicated by the historical summary of dietary advice and the fact that several recently published scientific studies have been sceptical towards a low fat diet. However, since there is lack of research regarding long-term effects of high fat diets, it is questionable if a high fat diet actually is more beneficial or just a hype in itself.

In line with the sceptical scientific articles, Swedish media also seem sceptical towards low fat as a health attribute. Several also associate it with weight loss, which is not necessary equal to healthy. It is furthermore interesting that despite the fact that the perception of a low fat diet as healthy is declining, there are still several articles providing recommendations for products containing low fat, which is somewhat contractive. However, high fat consumption might so far be a hype or trend that has only reached some of the potential population. Laggards, late majority and even early majority might still consume low fat products in accordance to the previous perception of healthy food, which is also to some extent supported by the Nordic Nutrition Recommendations. Hence, it might still be profitable selling products containing low or no fat, but it is questionable if it will continue to be profitable in the long-term.

Positioning low fat in the hype cycle is difficult due to the fact that it actually previously has been a widely accepted megatrend, and hence reached the plateau of productivity, but due to a shift in scientific paradigms, it is now perceived as less healthy. Hence, in order to position this attribute, the hype cycle is extended, and low fat is thus positioned on a decreasing megatrend, as Figure 54 illustrates below.



Figure 54 - Position of low or no fat in the hype cycle.

5.2.1.6 Sugar Free/ Low Sugar

Both in the survey conducted by AlixPartners (2013) and the one conducted by Nielsen (2015) the attribute sugar free or low sugar has been in the middle of the investigated attributes. This was different from the survey in this study, where the respondents ranked sugar free the fourth in terms of very important, and second when taking somewhat important into consideration as well.

The number of published articles has increased significantly during the studied years. Moreover, the search interest has been stable for several years but appears to have increased lately, which further indicates on a growing interest in the subject. In media, there appears to be a common view that high intake of sugar is unhealthy, since many articles discuss sugar's negative effects on the human body or provide recommendations for how to replace sugar with other ingredients. Hence, there seems to be a growing interest in low sugar or sugar free products. Moreover, several articles also raise the issue with artificial sweeteners, which indicates that these are not either perceived as healthy.

Even though scientific research lacks long-term trial data for low sugar diets, there seems to be a common view that sugar at least does not provide any health benefits per se. Furthermore, the conducted scientific studies still indicate on a positive correlation between high sugar intake and obesity, which implies that high intake of sugar should be avoided. The Nordic Nutrition Recommendations also support low sugar consumption, as they recommend to limit beverages and food with added sugar. Thus, low sugar consumption appears to be widely accepted.

There seems to be a common view that sugar is unhealthy, implying that the characteristic sugar free or low sugar is positioned in the plateau of productivity in the hype cycle, see Figure 55. Media is frequently discussing the subject but the focus is rather on its actual effects than on speculations. Research results have also started to indicate on the unhealthy effects of a high intake of sugar, which further strengthen the assumption that it is positioned in the plateau of productivity.



Figure 55 - Positioning of low/no sugar in the hype cycle.

5.2.1.7 Low/ No Salt

In the survey conducted by Nielsen (2015), low salt was considered somewhat important to the consumers, as it was ranked as the eleventh most important attribute of the 27 investigated. Furthermore, in the survey conducted by AlixPartners (2013) it was ranked on seventh place of the 19 investigated attributes, which is relatively high. The results of the study in this report however differ, as low salt was ranked the third least important characteristic of healthy food. Furthermore, few were willing to pay a premium for it. However, the difference may be due to that the surveys have targeted different groups of people, with the older generations being more prone to rank low salt as important.

The number of publications of newspaper articles in the subject low salt were quite stable until 2011 and 2012 when they increased significantly. In 2013 until now, the number of published articles has however decreased significantly again. This significantly increased media attention implies that there was some kind of hype in 2011 and 2012. The search interest in the subject has however been rather stable over the studied period.

There appears to be general consensus that too much salt is bad for the health, but what too much actually means is debatable. The lack of research findings on how much salt is too much might result in confusion about how unhealthy salt actually is. The confusion might be further enhanced as the effects, in terms of raised blood pressure, might not be as apparent for consumers as for instance increased body weight. It is therefore possible that the effect of salt on health is rather fuzzy for the consumers, which could explain the low rank of low salt in the conducted survey. However, since the experts highlighted the high amount of salt in processed food, it could be important to consider lowering the levels in such products in order for the food to be perceived as healthy.

According to the above, researchers seem to have reached consensus about the negative impact of salt on health, while there is so far a limited interest in the subject among consumers. Also, the number of newspaper publications indicate on having passed a hype recently. It is therefore likely that low salt is positioned in the slope of enlightenment, with the possibility that the adoption will eventually increase to become a megatrend, as seen in Figure 57. However, as salt affects the taste of food the question is to what degree consumers are willing to sacrifice taste for the benefits that a low salt diet provides. Thus, it is possible that this attribute may only reach a lowland plateau.



Figure 56 - Positioning of low/no salt in the hype cycle.

5.2.1.8 Low Cholesterol

The survey conducted by AlixPartners (2013) did not include low cholesterol, but in the survey by Nielsen (2015) low cholesterol was ranked the sixth most important health characteristic. The survey in this report however revealed less importance, which might be due to cultural differences or different targeted generations. The willingness to pay for this attribute was low among investigated millennials.

Both the number of published articles and the search interest in the subject low cholesterol indicates that the interest in low cholesterol and health is slowly decreasing. It is possible to assume that food with high levels of cholesterol are not necessarily associated with high levels of blood cholesterol, which is why consumers are not willing to pay more for such characteristics. Instead, they might choose to change their diets in general, for instance by increasing their intake of vegetables, in order to lower their cholesterol levels. Hence, this would result in less interest in food with low cholesterol, even if the consumers care for their levels of blood cholesterol. Furthermore, the fact that is was difficult finding studies supporting the notion that cholesterol is bad for the health was highly interesting, especially since it appears to be an "accepted truth" that high levels of cholesterol is unhealthy according to media. Thus, there appears to be a shift in scientific paradigms, where recent studies now claims that the body actually regulates a high intake of cholesterol by itself. The fact that the Dietary Guidelines Committee in the US also excluded their recommendations for limiting the intake of dietary cholesterol further reinforces this notion.

Since high levels of cholesterol previously have been publically accepted as unhealthy, it can be assumed that low cholesterol has previously been a megatrend, and thus positioned in the plateau of productivity in the hype cycle. However, since it appears to be a shift in scientific paradigm in this regard, it could be assumed that low cholesterol follow the same pattern as low fat, i.e. it is positioned on the extended hype cycle and is thus decreasing, as illustrated in Figure 58 below.



Figure 57 - Positioning of low cholesterol in the hype cycle.

5.2.1.9 High Protein

High protein has been similarly rated in the upper middle of all attributes in the survey and the investigations made by Nielsen (2015) and AlixPartners (2013). In total, 22% of the respondents in the survey consider high protein to be very important as a health attribute. In this case however, the difference between enthusiasts and others was very large, as 17% of non-enthusiasts and 45% of enthusiasts rated the attribute very important. The fact that more health interested individuals value this attribute higher indicate on a possible hype, with a so far low adoption. The significant sales increase of certain high-protein products over the last four years illustrates an increased interest in high protein products, also indicating on a hype. It should however be considered that those products may have been selling in very low quantities from the beginning. The decrease in sales of red meat as a source of protein is interesting in relation to this, and may indicate in a change in attitudes towards where to derive protein intake from.

The media attention of high protein appears to have had two peaks, with the number of articles doubling from 2002-2004 and then returning to previous levels and thereafter again increasing threefold from 2009-2012. The search interest has increased more steadily, and appears to follow a pattern of higher interest in the beginning of every year and a declining interest during the year. This pattern may be derived from an overall increased interest in health and diets in the beginning of every year. Moreover, recent media attention focuses primarily on possible negative effects of a high protein intake, and as a marketing means used to sell products with higher margins. There also seems to be evident that there are not yet any proven positive effects of a high protein diet, and seems not to be difficult to obtain sufficient levels of protein from eating normally.

A particularly strong interest from enthusiasts along with peaks in visibility and increasing search interest indicate that the high protein diet is or has recently been at the peak of its hype cycle. The number of published articles also indicates that the topic may have been hyped around 2004, possibly making this the second hype. Most media attention has turned negative, both focusing on drawbacks of the diet and claiming it is expensive and may very well be unnecessary. This indicates that the high protein hype is moving towards the through.

The positive effects of a high protein diet are yet to be proven, and unless this diet proves to have generally applicable benefits it is unlikely to become a long-term trend becoming adopted by the wide mass. The innovators and early adopters are in this case likely to be people involved in heavy training, who are likely to be the ones benefitting from this type of diet. When the trend has now reached a point where it can be spread to the mass market, attention has been drawn to that this type of diet does not benefit all and may possibly have harmful consequences. Thus, the current high protein hype is likely to become a victim of the through of disillusionment, as illustrated in Figure 59 below.



Figure 58 - Positioning of the high protein diet in the hype cycle.

5.2.1.10 High Fiber

The relative ranking of the importance of high fiber is different in the two investigations and the survey. In the survey, the attribute ranks in the middle, whereas it is the second most important one in AlixPartner's (2013) report, and in the upper half of Nielsen's (2015) report. The difference could both be due to differences in regional preferences and likely also the fact that AlixPartners has only investigated superusers, who may consider this attribute more important than others. Such an indication of a difference in preferences could also be seen among the respondents in the survey, where 27% of enthusiasts rated the attribute as very important whereas only 14% of other respondents did the same.

The newspaper articles related to dietary fibers show a clear peak in 1999, followed by a slight decrease and then a quite steady increase thereafter. The relatively large interest in 1999 indicate on a possible hype at that point in time. However, the search interest on the other hand appears to have been quite stable over the last 10 years.

Most of the studied articles in the subject dietary fibers have a positive tone and currently focus on the benefits of such a diet, and also primarily focus on applications and actual results. A high fiber diet currently appears to be associated with a wide number of positive effects on health out of which many are supported by scientific research over longer periods of time. Consuming high fiber food are also included in the Nordic Nutrition Recommendations, indicating that the positive effects are, at least currently, considered scientifically proven. There are therefore indications on that a high fiber diet has tangible and

verifiable benefits, making it more likely to stay a long-term trend and form an opportunity for long-term growth in the health food industry. The high fiber diet shows no signs of currently being hyped neither negatively nor positively. The tangible benefits and media tone rather suggest that high fiber food is an ongoing trend positioned at the plateau of productivity, see Figure 60 below.



Figure 59 - The positioning of high fiber in the hype cycle.

5.2.1.11 Food fortification (Vitamins)

Vitamin fortification has been rated in the lower middle in terms of importance among the investigated attributes, both in the two reports as well as in the survey. The opinions in the survey were however quite fragmented and quite evenly distributed from very important to very unimportant. The large increase in sales of energy/vitamin/recovery/sports drinks indicates an increased interest in vitamin and mineral fortification in drinks.

Studying the visibility of vitamin fortification, the number of articles published on this topic are very low compared to the other health characteristics investigated. None of the four different search terms result in more than 400 articles in any of the years studied. The available data however indicates an increased media attention in vitamin fortification around 2005, and a continuously increasing attention to the broader category of food fortification. Similarly to the visibility, the relative search interest in vitamin fortification has been very low, why the search interest for food fortification was used instead. This interest appear to have been largest around 2005 but has been more stable over all subsequent years. The vast differences between vitamin and food fortification in terms of visibility curves however indicates that food fortification does not accurately represent the search interest in vitamin fortification specifically. The search interest in food fortification has been unchanged over the last years.

The very few number of recently published articles indicates a low interest in discussing the overall need of vitamin fortification. There appears to be no controversy when it comes to concluding that vitamin fortification may be good in many cases to improve the health of a certain population, thus the current discussion in media touches more upon to what extent such fortification of some specific vitamins should be made. For example, while it is apparent that many people in Sweden suffer from Vitamin D deficiency, there is no consensus about at what degree an increased vitamin D intake becomes harmful.

Media attention and search interest does not indicate on a hype of the term vitamin fortified food. Certain vitamin fortified products however appear to be increasing in sales and there may be a hype that is more related to specific products or more narrow categories rather than vitamin or food fortification in its broad sense. As vitamin fortification has provided insufficient data and food fortification is a very broad category, none of these will be placed in the hype cycle. A more thorough analysis of specific vitamins or sub-categories needs to be made in order to place these on the hype cycle.

5.2.1.12 Gluten Free

Gluten free products are rated with the lowest importance among consumers both in the performed survey and in other reports presented. Only four percent of the respondents rated this attribute very important, which should however be put in relation to the one percent of the population that is gluten intolerant. Gluten free was also the characteristic that most respondents, 55%, rated as very unimportant as a health attribute. The low ratings of importance indicate that the mass has not adopted the view of a gluten free diet as beneficial for the health. However, the share of enthusiasts rating the attribute as very important in the survey were twice as many as non-enthusiasts, possibly indicating on a low overall adoption but a higher interest among innovators and early adopters. This is further supported by the fact that there are more enthusiasts in the survey that claim to be willing to pay more for gluten free products.

Despite the low ratings, there is a steep increase in visibility and also an increase in search interest, where the latter however appears to have stagnated somewhat over the last year. In addition, the substantial 28% increase in gluten free product sales in Sweden during 2014 indicates on an increasing interest in a gluten free diet. This is also supported by that one out of 10 people are avoiding gluten in Sweden, and as many as a third of Americans. Such a wide interest is evidently not due to that more people have been diagnosed with gluten intolerance, but is rather likely to be related to a belief among consumers that a gluten free diet is beneficial for anyone's health.

The increasing sales and claimed benefits despite no referrals to scientific evidence indicates that the gluten free diet is or has recently been at the peak of its hype. However, the tone of the articles published on the topic lately have turned primarily negative, pointing out the risks with misconceptions that has

spread about the gluten free diet. The positive claims are not either connected to actual scientific proof but rather to certain people such as celebrities claiming to have had a wide variety of positive effects of a gluten free diet. The negative tone and current lack of substantial evidence suggest that the gluten free diet is a hype that has begun heading towards the trough, as illustrated in Figure 60. This is not contradicted by the fact that the visibility is increasing, as increased media attention can be both in a positive and negative sense.

The question is whether the gluten free diet will survive the trough and become a long lasting trend or whether it will end up as a fad. The current lack of scientific evidence of claimed benefits implies that the hype will become a fad at some point in the future. The gluten free diet is hence not deemed to be a long-term growth opportunity. Further research could however reveal the accuracy of current health claims and more specifically direct the future of this hype. The high adoption rates in the US compared to Sweden also indicate that the diet has potential to be much further adopted and hyped in Sweden before actually becoming a fad, possibly making it a growth opportunity in the shorter term.



Figure 60 - The positioning of the gluten free diet in the hype cycle.

5.2.1.13 Lactose Free

Lactose free products have relatively low importance as a health attribute among consumers in the survey, with 8% of respondents rating it as very important. This number seems expected in relation to the 4-10% of the population that is lactose intolerant. However, similarly to the case of gluten free food, 53% of respondents rated this very unimportant which makes this the second most unimportant attribute in the study. Enthusiasts in the survey rate the attribute twice as important compared to other respondents, possibly indicating on a higher interest among innovators and early adopters. The willingness to pay is

however very low for both the respondent groups. Thus, there appears to be both a low interest and willingness to pay for lactose free food. There was however a sales increase of 14% in 2014, but it should be considered that these products may have been sold in very low quantities from the beginning. Again, the sales increase is unlikely to be due to more people being diagnosed with lactose intolerance, but rather due to an increased interest among non-intolerant consumers for different reasons. This could both be due to perceived health-related benefits as well as for example a wish to avoid animalistic products due to environmental concerns.

The number of published articles on a lactose free diet peaked during 2011 and 2012, after which they have decreased somewhat. The absolute number of articles is however significantly lower than for example gluten free, where this one peaks at around 1000 and gluten free at almost 29 000 which indicates on a lower relative importance of lactose free products. This is also likely due to that gluten free has a high interest worldwide, being considered in both of the two investigated reports, while lactose free was not included in these and was chosen as it appears to be important specifically for Swedish consumers. Furthermore, considering the search interest, it has doubled over the studied 20-year period with most of the increase occurring between 2011 and 2013. The increase after 2013 has however been modest. This indicates on that the peak of hype has passed.

Recent media mainly highlights lactose free products as expensive and unnecessary for those without lactose intolerance. However, there are also articles promoting a reduced intake of milk and claims negative effects of consumption. This indicates that the lactose free movement is or has recently been hyped but has begun moving towards the through, as illustrated in Figure 61.

Considering evidence of possible benefits of this type of diet, there are very few, 4-10%, that are in actual need of a lactose free diet due to intolerance. Also taking into account that a small amount of lactose can be consumed also by those that are intolerant indicate on that the actual need for lactose free products is very low. Despite this, sales are increasing as consumers seem to believe there are positive effects on health. The lack of substantial evidence or scientific claims of such benefits however indicates that the lactose free movement is not likely to become a megatrend and hence not a growth opportunity in the long-term.



Figure 61 - Positioning of lactose free in the hype cycle.

5.2.1.14 GMO Free

GMO free has been rated very differently as a health characteristic in the two reports presented, where consumers worldwide has rated GMO free as the *most* important attribute whereas US superusers in the report by AlixParners (2013) have rated it much lower compared to other attributes in the investigation. In the survey conducted in this study, GMO free was the characteristic that second most people considered very important. The opinions were however very fragmented, with 19% considering the attribute very unimportant. The fragmented opinions could be due to the controversy around GMO. The knowledge about what GMO means also seem to be limited, which is mirrored by the fact that GMO-free was the attribute that most respondents, 9%, answered that they had no opinion about. In addition, when both considering very and somewhat important, the attribute suddenly does not appear to be as comparatively important. The number of articles published about GMO free food has increased significantly since 2011, and the search interest has also seen a large relative increase since 2013. The very rapid change in media exposure and interest indicates on that GMO free food may be hyped.

Genetic modification of plants is without any doubt a very controversial topic, highly influenced by political decision making on an EU level. Whereas there are many organisations and movements promoting a GMO free world, most recently published articles focus on the benefits and need of GMO for the environment and efficiency in production in combination with the lack of evidence that GMO would be bad for the health or environment. However, these articles often do not differentiate between natural selective breeding and using modern gene technology, which is the WHO definition of GMO, and mean that the two are merely different techniques to achieve the same results. These articles also claim that the

research needs to be much more extensive in order to conclude what the effects are. It is possible that, as long as there is considerable doubt of the effects of GMO, there are going to be people and organisations advocating for being very cautious. In addition, the GMO-free movement relates to for example natural ingredients, as people perceive natural products as healthier than others.

The significantly increased visibility and search interest along with an overall high importance rating among certain users indicates on that the GMO free movement could currently be a hype. Most media attention has however started to question the legitimacy of the extensive caution taken around GMO products, especially in the EU. They claim that research so far indicates on no harm for the health nor environment, and that caution is taken solely to please environmental organisations from a political standpoint. This cynical tone indicates on a negative hype of the topic, meaning GMO-free is moving towards the trough as seen in Figure 63. The research so far indicating on no harm for health and environment in combination with that millennials are likely to embrace genetic modification indicates that GMO-free is not going to be a trend in the longer term. However, until genetic modification is proven to be safe for environment and people, there are likely to be people promoting cautiousness. As it also affects many people and involves environmental organisations and decisions on a political and EU level, this hype is likely to take longer time to move through the hype cycle and possibly become a fad than other health characteristics.



Figure 62 - Positioning of GMO free in the hype cycle.

5.2.2 Short- and Long-term Growth Opportunities

The hype cycle analysis reveals some health attributes expected to provide long-term growth opportunities for a firm in the health food industry, illustrated as circles in Figure 63 below. Organic, low sugar and high fiber products are currently positioned on the plateau of productivity and are hence becoming increasingly adopted by a wider audience. Low salt and vegetarian characteristics are positioned at the slope of enlightenment, due to evidence of health benefits and a so far low but continuously increasing adoption. Furthermore, natural ingredients is currently positioned at the peak of inflated expectations, and is deemed to be likely to survive the trough and become a long-term growth opportunity. This is primarily due to an unclear definition that is difficult to argue against, a high perceived importance and willingness to pay among consumers and the fact that consumers are prone to perceive natural food as healthy.

Some of the other health attributes investigated are also positioned at the peak or moving towards the trough, including locally sourced, high protein, gluten free, lactose free and GMO free food illustrated as triangles in Figure 63. These are not expected to become megatrends, primarily due to lack of current substantial evidence that they actually do provide health benefits to the consumer. Hence, these hypes are not expected to provide long-term growth opportunities, but rather to a varying degree provide opportunities in the shorter term. Locally sourced and GMO free food are both related to the natural food trend, and are hence likely to have some growth potential before potentially becoming fads, and therefore they may provide a short-term opportunity. Also gluten free seems to have short-term potential when looking at the American market, where as many as one third avoid gluten compared to the 10% in Sweden. Lactose free and high protein products have however only proven to be beneficial for specific, small, consumer groups and are hence not deemed to provide any large growth potential within this industry.

Lastly, low fat an low cholesterol, illustrated as crosses in Figure 63, appear to have been megatrends but started to move downwards in adoption again as other theories have made these obsolete. These two attributes are therefore not considered to provide any opportunities for growth within this industry.



Figure 63 - Positioning of all 13 analysed attributes in the hype cycle. Vitamin fortified has not been positioned due to lack of sufficient data.

Table 7 below concludes a definition of the health food industry derived from the above, including what attributes or characteristics that are considered long- and short-term growth opportunities. As previously mentioned, circle means long-term trend, triangle means short-term and crosses are not considered to provide any growth opportunity.

Table 7 -	Characteristics	defining the	health food	l industry	coloured	according t	o their lon	g-term	potential.
						67	(

Back to Basics	Environmental and Socioeconomic Concerns	Less is More	Functional Food	Free From
Natural ingredients	Organic	Sugar free / Low sugar	High fiber	Gluten free
	Vegetarian	Low / no salt	High protein	Lactose free
	Locally sourced	Fat free / Low fat Low cholesterol	Vitamin fortified	GMO free

5.3 Interpreting the Hype Cycle in the Setting of Health Food

The following section includes a discussion of the application of Gartner's hype cycle on the health food industry in general, and on health food characteristics in particular. As previously stated, it is human expectations that create the phenomenon illustrated in the hype cycle, and human expectations are highly present in this industry why the hype cycle has been applied in this context. In addition, the data for positioning attributes in the hype cycle were also possible to obtain and analyse. However, it may be interesting to discuss how this industry and its characteristics differ from technologies, and thus what parts of the hype cycle are less applicable or may be interpreted in different ways than traditionally.

There are some differences between a technology and health food attributes that may be discussed in relation to the hype cycle analysis. Firstly, the hype cycle is related to the technology S-curve, and hence assumes technological advancements as a function of R&D investments. This does not necessarily hold true for health food characteristics. On the one hand, it could be assumed that due to improvements in for instance production methods or findings of new ingredients, certain health characteristics might become more acceptable. For instance, low salt might not be adopted simply because consumers believe low salt products do not taste good enough, making them less prone to adopt it. If the industry could produce low salt products with the same, or even better, taste as today's salted products, it could lead to more consumers adopting a low salt diet. Thus, in this case it could be assumed that the s-curve could be similar in terms of health food characteristics. On the other hand, it is also possible to assume that all attributes do not necessarily improve in performance over time or along with investments in the same way as a technology. Rather, performance improvements may in this case be illustrated by an increase in perceived health impact among consumers, due to scientific research or other influences on consumers' perception of health food, as discussed in chapter 5.1.1. For example, even though no R&D efforts are put into improving the performance of low sugar, consumers might, despite loss of good taste, still adopt the notion that low sugar is associated with health food characteristics, due to that media highlights the negative effects of sugar. Thus, in the case of health food characteristics, the s-curve that the hype cycle to some extent builds on is not necessarily represented by cumulative R&D investments, but may in some cases instead be interpreted in terms of an increase in perceived health impact.

Media attention is also an area where health food differs from many technologies. As health food is naturally relevant to a lot of people, arguably all people, the level of media attention becomes much higher than for many technologies. Thus, the hype levels may be even higher for health food than certain technologies. Similarly, health food may be more widely scrutinised and hence also receive higher levels of negative hype as well, making the trough deeper. This could lead to increased complexity when qualitatively analysing the content of published newspaper articles, since there might be a vast number of them to take into consideration. However, it could also make it easier to interpret them since there could be large number of articles with the same focus. Also the quantitative analysis could be more easily interpreted due to more data. In addition, the trend of ubiquitous connectivity could lead to trends spreading faster. Trends beginning in the US that previously might have reached Europe years later, might today spread within a couple of months. This may however be the case for both health food trends as well as technology trends.

Another difference between a hype cycle analysis of health food characteristics and many technologies is the fact that there are very low switching cost when adopting to new health food, compared to when investing in a new technology. Consumers adopting a certain type of health food could in theory actually switch to another the next day, which indicates that the duration of hypes within the health food industry are shorter compared to more technology intensive industries. Furthermore, the low switching costs and ease to try out new types of health food may also result in that the adoption of certain health characteristics in the hype phase may momentarily be a much larger percentage than for a technology. Thus, it is possible to assume that a hype within the health food industry could imply wider adoption than 5%, which also seems to be the case for some of the investigated factors. However, the low switching costs are also likely to lead to a more substantial decrease of the adoption in the trough. Based on the this reasoning, it may be difficult to define the level of adoption of health food, which complicates the hype cycle analysis. An attribute can be adopted by a consumer to a small or large degree and may also, as previously mentioned, be adopted one day but not the other. Hence, the adoption of health food characteristic may vary one day to another, making it difficult to draw any conclusion of where to position an attribute based on its diffusion.

It is furthermore possible that the fact that health is individual also affects the hype cycle analysis. For a technology, it is usually possible to illustrate its benefits in a general sense. Different consumers will to a a large extent receive the same type of benefits since the functionality of the technology is the same for every consumer. It is thus relatively easy to reach consensus regarding whether the technology has intrinsic value or not. However, in terms of health food attributes, it is possible that the functionality is not the same for all consumers, due to the fact that health is individual. For instance, lactose free products might be very effective for some consumers in regards to improved health, while others do not experience any difference. Thus, this could imply that speculations and debates are more frequent and long lasting in this type of context, due to the difficulty of reaching a consensus whether the attributes actually benefit the consumers or not. This inherent ambiguity may lead to difficulties in determining the level of the plateau. Furthermore, as consumers today have quick access to large amounts of information, including complaints and reviews of products, it is becoming increasingly important to have scientific support of

the benefits of the particular products. If the benefits are not supported, consumers are likely to at some point question the capabilities of a certain product. Without any underlying substance behind health claims, they are more likely to end up as fads.

5.4 Managing Hypes and Megatrends

The following section includes an analysis of how to manage hypes and trends within the health food industry in order to create long-term growth. In general, it may be concluded that it is very difficult to foresee whether a hype will become a long-term trend or become a victim of the trough. As only the future will tell for sure, firms need to adopt strategies that let them invest in hypes in order to gain the benefits of a potential megatrend while at the same time avoid to take too much risk as the hype may end up as a fad. In addition, even if megatrends could be predicted, only investing in long-term opportunities and completely ignoring hypes would lead to firms in this industry failing to meet customers' short-term demand, especially given the previous argument that hypes in this industry still could imply wide adoption and thus capture substantial growth in the hype. As scientists have not, and may never, reach consensus regarding what food is healthy, the industry is likely to continually be characterised by relatively short-term hypes. Thus, firms need to consider different strategies to deal with hypes and longterm trends. Whereas megatrends may be incorporated in the brand strategy and when considering new investments, hypes may for example be incorporated into versions of existing products using labelling and marketing in order to take advantage of hypes without a very large investment. Such a strategy would be in line with Järrehult's (2011) recommendations of investing in hypes in small scale in the beginning, in order to avoid the risk if they will become fads. Moreover, an interesting view is also that megatrend characteristics could be what the consumer expects health food products to contain, whereas hyped characteristics is what makes the consumer choose the product in favour of another one, similarly to the concepts order qualifiers and an order winners. This also implies that it would be beneficial to incorporate hypes in marketing and labelling in different forms.

Furthermore, as the trough of disillusionment in the hype cycle coincides with the chasm in the diffusion curve, both Fenn and Raskino's (2008) and Moore's (2001) methods may be considered when creating a strategy for managing the gap between the hype and megatrend. However, these two theories have somewhat different perspectives on this type of phenomenon: the hype cycle relates to the expectations of a new technology while the diffusion curve refers to the consumers' actual adoption of it. In addition, it appears as the hype cycle theory views this phenomenon as external to the firm. Thus, the theories regarding how to manage it rather focus on how companies can adapt to hypes or megatrends in society. In contrast, Moore's (2001) theory regarding how to cross the chasm, assumes that firms actually have impact on the outcome of the diffusion of an innovation. This difference could also be related to the pull

and push perspectives: the hype cycle theories assume the firms need to adapt to the development of the market, while Moore's (2001) means that the company needs to push out new technologies. Nevertheless, one of the criteria for a new concept to be considered a megatrend is that it has reached the early majority. Thus, in order for a concept to actually become a megatrend, it has to cross the chasm, indicating on that companies do have impact on the outcome of a hype. However, becoming a megatrend requires that the innovation actually has enough intrinsic value. Hence, based on this it could be assumed that companies may have impact on the outcome of a hype, but only if it actually has enough value to the consumers.

Looking at the strategies that may be used to cope with the hype cycle, a key consideration includes when in the hype cycle to invest, i.e. whether to act as a type A, B or C type organisations as outlined in Chapter 2.4. This choice depends on whether a company considers itself lead innovator or a fast follower and to what degree they are willing to take risk, i.e. investing around the peak of inflated expectations or investing in the slope of enlightenment. However, it also possible to assume that the same company could act as a type A firm in one situation, and in another benefit from acting as a type C, depending on the context. However, type B companies, neither being successful innovators nor fast followers, are according to Fenn and Raskino (2008) rather unsuccessful, indicating on the importance of actually choosing one of the two strategies when considering investing in a new concept. However, suggesting that it is not beneficial to invest in the plateau of the hype cycle may not always be true. Even though an attribute is positioned in the plateau and there are not any first mover advantages to benefit from, it could still be critical to invest if a characteristic is considered an order qualifier for the consumers. A health food company not selling for instance low sugar products may possibly still benefit from investing in such business, since the attribute may be required in order for the consumers to perceive the food as healthy overall. Furthermore, another option in terms of strategy could be to leave the initial risk externally until a trend is established, and then acquire smaller firms in the slope or plateau much has been learned about the innovation. This would imply getting the same type of first mover advantages as type A companies, without the same risk. However, this strategy is dependent on that there exists potential firms to acquire.

Furthermore, Moore's (2001) method may be applied to facilitate the move from the early to the mainstream market. This is relevant to consider for type A companies, since these have invested in the new concept before it has actually reached the mainstream market. When crossing the chasm, Moore (2001) has outlined four steps to consider (see Chapter 2.2). However, in terms of health food characteristics, it is difficult to outline general strategies relating to Moore's (2001) four steps. This is due to the fact that the different characteristics are highly different from each other and may have different early adopters as well as reasons for early majority to adopt. For instance, considering the characteristic

high protein, early adopters could be people such as body builders, highly in need for additional protein in order to build muscles, while early majority consist of ordinary people exercising relatively often. However, in terms of organic food, early adopters and early majority are probably not the same type of people at all, which is why firms need to reflect upon these differences for each of the different characteristics. Nevertheless, the final part of Moore's (2001) strategy to cross the chasm, could to some extent be generalised for firms within the health food industry. In accordance to the theory, it is important to secure a channel that the early majority is comfortable using, and use a pricing strategy that motivates this channel. In the case of health food, the main channel reaching the early majority is likely to be supermarket chains, while the channels reaching the innovators and early adopters are rather specific health stores and online stores. Hence, in order to cross the chasm between the early and the mainstream market, it could be of importance to secure the channel through supermarket chains.

Finally the accuracy of Moore's (2001) theory today may be discussed, at least in the context of health food. Since the theory origins from a time where for instance blogs and Youtube were not widespread, it is possible that the gap between early adopters and early majority is not as large today. According to Moore (2001), early majority does not consider early adopters as a well-established reference. However, considering for example blogs today, the most successful bloggers especially in terms of health, can often be referred to as early adopters. These can be argued to inspire the early majority to adopt to new trends as well. It is therefore questionable whether, or to what degree, the chasm actually exists in this type of industry today.

6. Conclusion

The purpose of this master's thesis was to identify growth opportunities within the health food industry, and in doing this, discuss how the hype cycle may be applied in this setting. In order to accomplish that, four research questions were developed that together answer the purpose. Consequently, these will be covered in the conclusion below.

Due to shifts in scientific paradigms, high levels of media attention and the individual nature of health, it could be concluded that the definition of health food is dynamic rather than static. Hence, health food can be broadly defined as food that is *perceived* as more healthy than other food, and thus providing some kind of *perceived* health benefit to the consumer. Furthermore, the Nordic Nutrition Recommendations are likely to set the foundations of what the majority of the Swedish consumers and firms consider constitute health food, but these may change as new knowledge emerge. This study has focused on attributes most likely to currently be associated with health food, and the following areas have been identified as important: back to basics, environmental and socioeconomic concerns, less is more, functional food and free from. Understanding these categories therefore provides a more precise understanding of the current definition of health food.

The identified megatrends that are concluded to currently provide long-term growth opportunities are organic, low sugar and high fiber attributes. Hence, for a company within the health food industry, these ought be invested in or incorporated into current product offerings if possible, in order for consumers to perceive the products and the overall brand as healthy. Moreover, the attribute natural ingredients is positioned on the peak of inflated expectations in the hype cycle, but is expected to become a megatrend. Hence, in order to take advantage of this trend, type A firms should start to invest in small scale now, in order to gain first mover advantages while still reducing the risk if it turns out to be a fad. Type C companies may wait to invest until this characteristic has entered the slope of enlightenment in the hype cycle, and thus continue acting as fast followers.

Moreover, low salt and vegetarian food are positioned in the slope of enlightenment in the hype cycle, and are therefore also likely to become megatrends and thus to provide long-term growth opportunities. Hence, these provide opportunities for companies classified as type C, i.e. fast followers, since investing in the slope of enlightenment often is most beneficial for such companies. Since these characteristics are likely to provide growth opportunities in the long-term, it is essential for firms to consider not only how to incorporate these in their product offerings but also in their overall brand strategies.

Furthermore, locally sourced, high protein, and free from gluten, lactose and GMO are positioned in the peak of inflated expectations or moving down towards the trough of disillusionment in the hype cycle,

according to this research. Since these are not deemed likely to survive the trough of disillusionment and become megatrends, these are concluded to not provide long-term growth opportunities. Nevertheless, these attributes still present what consumers currently perceive as healthy, and could therefore still provide lucrative growth opportunities in the short term. Hence, in order to take advantage of these, firms ought to incorporate such attributes in their existing product offerings. It is however essential to be able to exit these characteristics quickly, since they are likely to at some point become fads, which could happen relatively quickly in this type of industry.

Not all of the investigated attributes indicated on future growth opportunities. Low fat and low cholesterol food appear to be moving downwards in terms of adoption, since new knowledge have emerged. Thus, firms within the health food industry ought to not invest in such characteristics in the future.

It should be noted that actors need to consider the opportunities suggested above as implications derived from this specific analysis. In addition, firms need to consider whether the suggestions align with their business and be aware of the associated risks. As concluded from the analysis, it will never be possible to tell with certainty whether an attribute will succeed or become a fad, thus, firms need to adopt flexible strategies allowing them to benefit from hypes while at the same time avoiding to take too large risks.

Considering the application of Gartner's hype cycle on the health food industry, some implications for the interpretation of this analysis may be concluded. Firstly, the s-curve on which the hype cycle is built is not necessarily represented by cumulative R&D investments, but may in some cases instead be interpreted in terms of an increase in perceived health impact. Moreover, the media attention covering health food is more extensive than for many technologies, leading to higher levels of positive and negative hype, which may qualitatively complicate the analysis while also quantitatively facilitating it. Furthermore, due to low switching costs, the adoption of a health attribute may be higher in the hype than for a technology, and consequently also lower in the trough. Lastly, the individual nature of health makes it difficult to illustrate the absolute benefits of a health attribute, hence it may be difficult to determine the level of the plateau.

This study applied Gartner's hype cycle on a number of health food attributes in order to identify growth opportunities within the studied industry. This has provided a new perspective on how to find and when to invest in growth opportunities within an industry highly influenced by hypes and trends. In the future, taking into consideration the differences between technologies and health attributes, the hype cycle may be applied to more health food attributes to continuously provide an up-to-date definition of the industry scope. It would furthermore be interesting to apply the same theory to other levels of analysis, such as to specific health food trends or to the industry as a whole.

7. References

Ahlborg, K. (2013) Glöm lätt - nu frossar vi i fett. Aftonbladet, 2nd of February.

AlixPartners (2013) Eat well, Drink well: Capturing the Health and Wellness Superuser in the Food and Beverage Sector.

http://www.alixpartners.com/en/Publications/AllArticles/tabid/635/articleType/ArticleView/articleI d/862/Eat-Well-Drink-Well.aspx#sthash.klpWdL9F.eNnpXQQh.dpbs (2015-04-07)

- American Society for Nutrition (2013) Changing the Paradigm: A History of Dietary Guidance and Recommendations in the U.S. http://www.nutrition.org/asn-blog/2013/12/changing-the-paradigm-ahistory-of-dietary-guidance-and-recommendations-in-the-us/ (2015-03-15)
- Amidor, T. (2015) Healthy recipes featuring high-fiber food. Shape, 16th of April.
- Anter, F. (2014) 5 magproblem och hur LCHF kan hjälpa. Expressen Hälsoliv, 9th of February.
- Antonsson, S. (2015) Vad ska jag äta mot högt blodtryck? Expressen Hälsoliv, 20th of April.
- Asp, K. (2013) Ekologiskt och närodlat är det hälsosammare? Göteborgs Posten, 28th of November.
- Asp, K. (2014) Mindre stress, fett och salt. Göteborgs Posten, 29th of April.
- Asplund, M. (2014) Laktosfritt: Dyrt och ofta helt onödigt. Aftonbladet, 26th of June.
- Aune, D., Chan, D. S. M., Lau, R., Vieira, R., Greenwood, D. C., Kampman, E. & Norat, T. (2011) BMJ: British Medical Journal, vol. 343, no.7833, pp. 1082-1082.
- Bain & Company (2011) The great eight: Trillion-dollar Growth Trends to 2020. http://www.bain.com/Images/BAIN_BRIEF_8MacroTrends.pdf (2015-03-16)
- Bainbridge, K. (2015) Celeb chef's new recipe for success: health fast casual. CNBC, 10th of April.
- Baranski, M., Srednicka-Tober, D., Volakakis, N., Seal, C., Sanderson, R., Stewart, G. B., Benbrook, C., Biavati, B., Markellou, E., Giotis, C., Gromadzka-Ostrowska, J., Rembiałkowska, E., Skwarło-Son, K., Tahvonen, R., Janovska, D., Niggli, U., Nicot, P. & Leifert, C. (2014) Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: a systematic literature review and meta-analyses. *British Journal of Nutrition*, vol. 12, no. 5, pp. 794-811.
- Baria, Z. (2015) A simple guide to organic food. *The Times of India*, 10th of April.
- BCG (2012) Ten Trends That Are Reshaping the Retail Industry. https://www.bcgperspectives.com/content/articles/retail_digital_economy_retail_2020_ten_trends/ (2015-03-16)
- Bejerot, S. & Humble, M. (2015) Brist på D-vitamin måste tas på allvar. *Svenska Dagbladet*, 23rd of January.

Benedetto, C. D. (2015) 4 low-sugar food swaps. Time, 18th of April.

- Bojs, K. (2015) Nya vurmen för nyttigt halkar lite snett. Dagens Nyheter, 22nd of February.
- Borreli, L. (2015) Benefits of oatmeal: why you should add the power food to your high-fiber diet. *Medical Daily*, 9th of April.
- Brehm, B. J., Selley, R. J., Stephen, R. D. & D'Alessio, D. A. (2013) A randomized trial comparing a very low carbohydrate diet and a calorie-restricted low fat diet on body weight and cardiovascular risk factors in healthy women. *The Journal of Clinical Endocrinology & Metabolism*, vol. 88, no. 4, pp. 1617–1623.
- Brown, R. (1992) Managing the "s" curves of innovation. *Journal of Business & Industrial Marketing*, vol. 7, no. 3, pp. 41-52.
- Brown, I. J., Tzoulaki, I., Candeias, V. & Elliott, P. (2009) Salt intakes around the world: implications for public health. *International Journal of Epidemiology*, vol. 38, no. 3, pp. 791-813.
- Bruce, B. (2014) Top five trends that will influence consumer behaviour in 2015. http://www.foodbev.com/news/top-five-trends-that-will-influence-cons#.VR42LTusW0n (2015-04-03)
- Bryman, A., & Bell, E. (2011) Business research methods. Oxford: Oxford University Press.
- Bunch, T. J. (2015) This high-fat food can lower your cholesterol. *Everyday Health*, 31st of March.
- Byqvist, L. (2015) "Jag var en klassisk sockermissbrukare". Expressen Hälsoliv, 24th of January.
- Caba, J. (2015) Earing healthy lowers risk of declining memory, thinking skills by 24%. *Medical Daily*, 7th of May.
- Canadean (2013) Global functional food survey: trends and insights 2014-2016. http://www.rnrmarketresearch.com/global-functional-food-survey-trends-and-insights-2014-2016market-report.html (2015-04-02)
- Carbone, E. & Brown, M. (2015) With new dietary guidelines in the works, what exactly are we supposed to eat? *The Conversation UK*, 30th of April.
- Cardell, J. (2014) Forskarnas varning vi äter för mycket salt. Expressen Hälsoliv, 13th of January.
- Castillo, S. (2015) Vegan vs. vegetarian diets: how each will impact your health. *Medical Daily*, 15th of April.
- Clift, K. (2015) Your say: beware of hidden sugar trap in popular food. *The Queensland Times*, 28th of April.
- Craig, W. J. (2010) Nutrition concerns and health effects of vegetarian diets. *Nutrition in Clinical Practice*, vol. 25, no. 6, pp. 613-620.

- Creswell, J. W. (2003) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* Second edition. Thousand Oaks: Sage Publications.
- Cunningham, J., B. & Aldrich, J., O. (2012) *Using SPSS: An Interactive Hands-On Approach*. California: SAGE Publications, Inc.
- Cuppett, D. (2014) Millennials drive food trends despite lag in spending. *Supermarket News*. 17th of November.
- Dagens Nyheter (2014) Var tionde svensk vegetarian. 22nd of March.
- Dagens Nyheter (2015) Feghet är inte försiktighet. 26th of April.
- Deasismont, D. (2014a) 7 sätt att slippa sötsuget för gott. *Expressen Hälsoliv*, 11th of December.
- Deasismont, D. (2014b) Därför blir du tjock av din light-läsk. Expressen Hälsoliv, 21st of August.
- Deasismont, D. (2014c) Saltpanik! Hur mycket salt klarar kroppen? Expressen Hälsoliv, 28th of October.
- Deasismont, D. (2015a) Rött kött hur farligt kan det vara? Expressen Hälsoliv, 5th of January.
- Deasismont, D. (2015b) Mjölk ifrågasätts av experter världen över. *Expressen*, 16th of March.
- Demred, J. (2015) Dietist varnar för glutenfria maten. Aftonbladet, 24th of February.
- Dennett, C. (2015) New science on cholesterol, eggs and vegetarian diets. The Seattle Times, 5th of April.
- Dietary Guidelines Committee (2015) Scientific report of the 2015 dietary guidelines committee. http://www.health.gov/dietaryguidelines/2015-scientific-report/PDFs/Scientific-Report-of-the-2015-Dietary-Guidelines-Advisory-Committee.pdf (2015-05-09)
- Dovey, D. (2015) Too much salt: how a diet too high in sodium can affect your heart, brain, and even bone health. *Medical Daily*, 28th of April.
- Dwyer, J. T. (1988) Health aspects of vegetarian diets. *American Journal of Clinical Nutrition*, vol. 48, no. 3, pp. 712-738.
- Easterby-Smith, M., Thorpe, R., Jackson, P., R. (2013)
- Eenfeldt, A. (2011) *Matrevolutionen: ät dig frisk med riktig mat.* Second edition. Stockholm: Bonnier Fakta.
- Emanuelsson, E. (2014) Köp ekologiskt det är nyttigare. Aftonbladet, 13th of July.
- Ennart, H. (2014a) Redan liten mängd socker gör hål i tänderna. Svenska Dagbladet, 16th of September.
- Ennart, H. (2014b) Industrins egna studier avslöjar risker med socker. Svenska Dagbladet, 21st of May.
- Ennart, H. (2015a) Risk att glutenfritt avsljöjas vara vanlig skräpmat. Svenska Dagbladet, 23rd of February.

Ennart, H. (2015b) Läkare dömer ut modediet. Svenska Dagbladet, 23rd February.

- Ennart, H (2015c) Livsmedelsverket Fullkorn är bra för nästan alla. *Svenska Dagbladet*, 23rd of February.
- Estruch R., Martinez-González, M. A., Corella, D., Basora-Gallisá, J., Ruiz-Gutiérrez, V., Covas, M. I., Fiol, M., Gómez-Garcia, E., López-Sabater, M. C., Escoda, R., Pena, M. A., Diez-Espino, J., Lahoz, C., Lapetra, J., Sáez, G. & Ros, E. (2009) Effects on dietary fibre intake on risk factors for cardiovascular disease in subject at high risk. *Journal of Epidemic and Community Health*, vol. 63, no. 7, pp. 582-588.
- Euromonitor International (2012) 10 Global Macro Trends for the Next Five Years. http://www.euromonitor.com/10-global-macro-trends-for-the-next-five-years/report (2015-03-16)
- Euromonitor International (2015) *Top 10 Global Consumer Trends for 2015*. http://go.euromonitor.com/rs/euromonitorinternational/images/WP-TP10CT15_EMI.pdf (2015-04-02)
- European Commission (2015) *Genetically Modified Organisms*. http://ec.europa.eu/food/plant/gmo/new/index_en.htm (2015-05-07)
- Fenn, J., & Raskino, M. (2008). *Mastering the hype cycle: how to choose the right innovation at the right time*. Harvard Business Press.
- Fenn, J., & Time, M. (2007). Understanding Gartner's hype cycles, 2007. *Gartner ID G*, 144727. http://lib-resources.unimelb.edu.au/gartner/research/138400/138430/138430.pdf
- Fjaervoll, K. (2014) Frusen yoghurt en hälsosam succé. Göteborgs Posten, 19th of March.
- Folkhälsomyndigheten (2014) Fler har fetma och övervikt. http://www.folkhalsomyndigheten.se/nyheteroch-press/nyhetsarkiv/2014/februari/fler-har-fetma-och-overvikt/ (2015-05-15)
- Folkhälsomyndigheten (2015) Näringsrekommendationer. http://www.folkhalsomyndigheten.se/amnesomraden/livsvillkor-ochlevnadsvanor/matvanor/naringsrekommendationer/ (2015-03-16)
- Folkhälsomyndigheten (2014) Fler har fetma och övervikt. http://www.folkhalsomyndigheten.se/nyheteroch-press/nyhetsarkiv/2014/februari/fler-har-fetma-och-overvikt/ (2015-03-04)
- Food & Friends (2014) Trendspotting 2015. http://www.foodfriends.se/files/7314/0965/0158/Trend_Weird_2015_webb.swf (2015-04-03)
- Forsberg, J. (2011) Så blir du av med din svullna mage. Expressen Hälsoliv, 21st of September.
- French, S. (2014) Trends in health and wellness. Natural Products Insider, 19th of September.
- Fromm, J. & Garton, C. (2013) *Marketing to millennials: reach the largest and most influential* generation of consumers ever. New York City: Amacom/American Management Association.

Gallagher, J. (2015) Low-fat diet 'burns more fat', study finds. BBC News, 6th of March.

- Gartner (2014) *Gartner Identifies the Top 10 Strategic Technology Trends for 2015*. http://www.gartner.com/newsroom/id/2867917 (2015-03-16)
- Ghauri, P. & Grønhaug, K. (2010) *Research Methods in Business Studies*. 4th Edition. Harlow: Pearson Education Limited.
- Gillham, B. (2010) Case study research methods. London: Continuum International Publishing.
- Global Trends (2014) *GT briefing December 2014 10 trends to watch for 2015*. http://www.globaltrends.com/monthly-briefings/60-monthly-briefings/216-gt-briefing-december-2014-10-trends-to-watch-for-2015 (2015-03-16)
- Goetzke, B. I. & Spiller, A. (2014) Health-improving lifestyles of organic and functional food consumers. *British Food Journal*, vol. 116, no. 3, pp. 510-526.
- Goldman, L., Gordon, D. J., Rifkind, B. M., Hulley, S. B., Detsky, A. S., Goodman, D. W., Kinosian, B. & Weinstein, M. C. (1992) Cost and health implications of cholesterol lowering. *Circulation*, vol. 85, no. 5, pp. 1960-1968.
- Goreham, S. (2015) 'Buy locally': horse and buggy advice from the green movement. *The Daily Caller*, 21st of April.
- GP (2014) Farliga ämnen i "naturliga" hudkrämer, 28th of January.
- Gudiol, J. (2014) Extra protein behövs det verkligen?. Svenska Dagbladet, 23rd of October.
- Gunnars, K. (2015) 22 delicious high-fiber food. The Epoch Times, 24th of April.
- Gunnarsson, E. (2014) Så blir du detoxad från socker på en vecka. *Expressen Hälsoliv*, 28th of April.
- Gunnarsson, E. (2012) Ät fett för hälsan. Expressen Hälsoliv, 30th of January.
- Harcombe, Z., Baker, J. S., Cooper, S. M., Davies, B., Sculthorpe, N., Di Nicolantonio, J. J. & Grace, F. (2015) Evidence from randomised controlled trials did not support the introduction of dietary fat guidelines in 1977 and 1983: a systematic review of meta-analysis. *Open Heart*, vol. 2, no. 1, e000196.
- He, F. J. & MacGregor, G. A. (2009) A comprehensive review on salt and health and current experience of worldwide salt reduction programmes. *Journal of Human Hypertension*, vol. 23, no. 6, pp. 363-384.
- Healthy Marketing Team (2015) The game has changed: food=health. http://www.thehmt.com/the-gamehas-changed-food-health (2015-05-16)
- Heid, M. (2015) Why full-fat dairy may be healthier than low-fat. *Time*, 5th of March.

- Hernell, O. (2015) Laktosintolerans. *1177 Vårdguiden*. http://www.1177.se/Vastra-Gotaland/Fakta-och-rad/Sjukdomar/Laktosintolerans/?ar=True (2015-04-29)
- Hite, A. H., Goldstein Berkowitz, V. & Berkowitz, K. (2011) Low-carbohydrate diet review: shifting the paradigm. *Nutrition in Clinical Practice*, vol. 26, no. 3, pp. 300-308.
- Howard, B. V. & Wylie-Rosett, J. (2002) Sugar and cardiovascular disease. *Circulation*, vol. 107, no. 7, pp. 523-527.
- Howard, B. V., Van Horn, L., Hsia, J., Manson, J. E., Stefanick, M. L., Wassertheil-Smoller, S., Kuller, L. H., LaCroix, A. Z., Langer, R. D., Lasser, N. L., Lewis, C. E., Limacher, M. C., Margolis, K. L., Mysiw, W. J., Ockene, J. K., Parker, L. M., Perri, M. G., Phillips, L., Prentice, R. L., Robbins, J., Rossouw, E. J., Sarto, G. E., Schatz, I. J., Snetselaar, L. G., Stevens, V. J., Tinker, L. F., Trevisan, M., Vitolins, M. Z., Anderson, G. L., Assaf, A. R., Bassford, T., BeresfordS. A. A., Black, H. R., Brunner, R. L., Brzyski, R. G., Caan, B., Chlebowski, R. T., Gass, M., Granek, I., Greenland, P., Hays, J., Heber, D., Heiss, G., Hendrix, S. L., Hubbell, F. A., Johnson, K. C. & Morley Kotchen, J. (2006) Low fat dietary pattern and risk of cardivascular diease: the Women's Health Initiative randomized controlled dietary modification trial *The Journal of the American Medical Association*, vol. 295, no. 6, pp. 655-666.
- Hu, F. B. (2010) Are refined carbohydrates worse than saturated fat? *The American Journal of Clinical Nutrition*, vol. 91, no. 6, pp. 1541 1542.
- Hulley, S. B., Walsh, J. M. & Newman, T. B. (1992) Health policy on blood cholesterol. Time to change directions. *Circulation*, vol. 86, no. 3, pp. 1026-1029.
- Hygstedt, E. & Fagerberg, T. (2014) Allt mer pengar läggs på ekologiska livsmedel. http://www.scb.se/sv_/hitta-statistik/artiklar/okad-forsaljning-av-ekologiska-livsmedel/ (2015-05-02)
- ICA Gruppen (2014) Annual Report 2014. http://www.icagruppen.se/globalassets/3.-investerare/5.rapporter/arkiv---finansiellt/engelska/2015/02.-annual-report-2014/ica-gruppen-annual-report-2014.pdf (2015-04-13)
- Indo American News (2015) Harvard scientist urges people to stop drinking "low-fat" milk immediately. 24th of April.
- Jakobsson, J. (2014) Minskat motstånd mot GMO. Svenska Dagbladet, 17th of August.
- Jalonick, M. C. (2015) Consumers buying more organic products, new data show. *Associated Press*, 18th of April.
- Jannerling, L. (2010) Nötter sänker ditt kolesterol. Expressen Hälsoliv, 11th of May.
- Järrehult, B. (2011). Hypes, fads and Megatrends. Dr Beng's Innovation blog, vol. 2, no. 52, pp. 1.
- Kannan, R. (2015) Cheese to lower cholesterol levels and reduce risk of heart problems. *The News Reports*, 13th of April.
Karlsson, J. (2015) Nya smala osten - succé på pizzan. *Expressen*, 7th of February.

Karvonen, J. (2014) Grönare är skönare. Aftonbladet, 6th of November.

ars2015.pdf (2015-04-29)

Kavounis, Y. (2008) Millennials: the millennial effect. Brand Strategy, pp. 49-51.

Ketchiff, M. (2015) How a low-fat diet sabotages weight loss. Shape, 13th of April.

Kihlberg, J. (2015) Ny taktik ska få oss att äta sundare. Dagens Nyheter, 28th of April.

- Konsumentföreningen Stockholm (2015). Mat, piller och pulver på menyn! Försäljningstrender och attitydundersökning.
 http://www.konsumentforeningenstockholm.se/Global/Konsument%20och%20Milj%C3%B6/Bilde r%20KochM/Mat%20piller%20och%20pulver%20p%C3%A5%20menyn_Rapport_KfS_16%20m
- Koshuta, J. (2015) *What is physical health? Definition, components & examples.* http://educationportal.com/academy/lesson/what-is-physical-health-definition-components-examples.html (2015-03-02)
- Kuhn, T. (1962) *The structure of scientific revolutions*. 2nd Edition. Chicago: The University of Chicago Press.

Kyraicou, E. (2015) It's never too late: five simple changes to help you live longer. Express, 12th of April.

Lagercrantz, V. (2015) Bör diabetiker äta LCHF-kost? *Expressen Hälsoliv*, 1st of April.

- Linden, A., & Fenn, J. (2003). Understanding Gartner's hype cycles. *Strategic Analysis Report N° R-20-*1971. Gartner, Inc.
- Lindmark, S. (2006) *Techno-Economic analysis an introduction*. Göteborg: Chalmers University of Technology.
- Lindström, L. (2014) Närproducerat är en bluff. Folkbladet, 1st of August.
- Lindström, J., Peltonen, M., Eriksson, J. G., Lougeranta, A., Fogelholm, M., Uusitupa, M. & Tuomilehto, J. (2006) High-fibre, low-fat diet predicts long-term weight loss and decreased type 2 diabetes risk: the Finnish diabetes prevention study. *Diabetologia*, vol. 49, no. 5, pp. 912-920.
- Livsmedelsverket (2015) Gluten http://www.livsmedelsverket.se/matvanor-halsa--miljo/sjukdomarallergier-och-halsa/allergi-och-overkanslighet/gluten/ (2015-04-28)

Lynn, A. (2015) 6 super food that will lower your cholesterol. Charisma News, 5th of April.

- Längberg, B. (2014) Lunchlådan visar kollegorna att du har koll. Dagens Nyheter, 5th of October.
- Mangels, A. R., Messina, V. & Melina, V. (2003) Position of the American dietetic association and dietitians of Canada: vegetarian diets. *Journal of the American Dietetic Association*, vol. 103, no. 6, pp. 748-768.

Maza, C. (2015) As millennials demand better meals, big food shifts to keep up. Yahoo News, 1st of May.

- MCE (2012) Macro-Trends. http://www.mce-ama.com/strategy-implementation-issues/macro-trends/#section8 (2015-03-16)
- McKinsey & Company (2010). Five forces reshaping the global economy: McKinsey Global Survey results. http://www.mckinsey.com/insights/globalization/five_forces_reshaping_the_global_economy_mck insey_global_survey_results (2015-03-20)
- McQuaid, J. (2015) The science why people prefer organic, natural, and non-GMO food. Forbes, 5th of April.
- Medical Express (2015) Reducing salt in food good for the heart and health budgets, 5th of May.
- Mendelson, M. (2013) The millennial generation: receiving a fair exchange? *Journal of Intergenerational Relationships*, vol. 11, no. 3, pp. 324-328.
- Miller, H., I. (2015) Chipotle: The Strangest Restaurant Menu Ever. Forbes, 27th of April.
- Mercola (2015) Why you need to avoid low-fat milk and cheese. The Epoch Times, 28th of April.
- Moore, G. A. (2001) Crossing the Chasm: Marketing and Selling High-tech Products to Mainstream Customers. [Electronic] New York City: Harper Collins Publisher.
- Morgan, T. (2015) High-protein, Atkins-style diets increases death risk for heart sufferers, study claims. *Express*, 7th of May.
- Månström, P. (2014) För mycket socker kan ge sämre minne. Svenska Dagbladet, 17th of October.
- Möller, L. (2015) I Klippan är endast det bästa gott nog. Helsingborgs Dagblad, 11th of February.
- Natural Marketing Institute (2014) Health and Wellness Trends for 2014. 19th of March.
- Natural ingredients gaining ground. (2013). U.S. Newswire, 5th of August. Retrieved from http://search.proquest.com/docview/1417473034?pq-origsite=summon
- Nielsen (2014) Kraftig ökning av gluten- och laktosfritt. http://www.nielsen.com/se/sv/pressroom/2014/kraftig-oekning-av-gluten--och-laktosfritt.html (2015-04-24)
- Nielsen (2015) We are what we eat: Healthy eating trends around the world. http://www.nielsen.com/us/en/insights/reports/2015/we-are-what-we-eat.html (2015-03-07)
- Nygren, P. (2014) Ingen sol då ska vi äta D-vitamin. GöteborgsPosten, 24th of October.

Oskarsson Henckel, T. (2015) Det våras för den gröna matlagningen. Svenska Dagbladet, 11th of May.

Pacenti, J. (2015) It's sugar and carbs - not physical inactivity - that's behind obesity epidemic, study says. *Palm Beach Post*, 27th of April.

- Phillips, D. (2015) What is 'natural' food? Choosing ingredients carefully and working with supplies can make natural food formulation a cleaner proposition. *Food Processing*, 26th of May.
- Persson, K. (2010) Här är allt du behöver veta om fibrer. *Expressen Hälsoliv*, 4th of March.
- Prage, N. (2014a) Lightläsk: här är fem obehagliga effekter. Expressen Hälsoliv, 19th of September.
- Prage, N. (2014b) Forskaren: 4 myter om att äta glutenfritt. Expressen Hälsoliv, 17th of November.
- Prage, N. (2015a) Att äta vegetarisk mat kan skydda mot cancer. Expressen Hälsoliv, 10th of March.
- Prage, N. (2015b) 4 otäcka fakta: det gör sockret med hjärnan. Expressen Hälsoliv, 15th of April.
- Prage, N. (2015c) Lightläsk: 6 anledningar till varför du inte ska dricka den. *Expressen Hälsoliv*, 23th of March.
- PR Newswire (2015) Packaged facts: local food trend naturally close to consumers' purchase preferences. http://www.prnewswire.com/news-releases/packaged-facts-local-food-trend-naturally-close-toconsumers-purchase-preferences-300068598.html (2015-05-07)
- Pärsson, E. (2015) Närodlat saknar tydlig innebörd. Svenska Dagbladet, 8th of February.
- Rasmusson, M. (2014) Vegetariskt på matan lockar mest i Landskrona. *Helsingsborgs Dagblad,* 28th of September.
- Reuters (2010) High fiber diet linked to lower lung disease risk, 9th of March.
- Reinberg, S. (2015) High-protein diet may be dangerous for those at risk of heart disease. *MedicalXpress*, 9th of May.
- Rogers, E. M. (2003) *Diffusion of Innovations*. 5th Edition. New York City: Free Press.
- Sahl, M. (2014) Ta kål på tallriken. Aftonbladet Wellness, 11th of December.
- Sander, L. (2010) Bli sockerfri med telefonen. Aftonbladet, 2nd of December.
- Santich, B. (2005) Paradigm shifts in the history of dietary advice in Australia. *Nutrition & Dietetics*, vol. 62, no. 4, pp. 152-157.
- Saul, H. (2015) Bad news for fans of the Atkins diet: High-protein diets increase risk of weight gain, study finds. *Belfast Telegraph*, 8th of May.
- SCB (Statistiska Centralbyrån) (2004) Attityder till ekologiska livsmedel. http://www.scb.se/statistik/ publikationer/JO9999 2005A01 BR JOFT0502.pdf (2015-05-02)

Schults, M. (2014) Grattis potatisälskare - det är en nyttig knöl. Expressen Hälsoliv, 22nd of August.

Schmidt, B. (2014) 100 procent ekologiskt I skolmaten på Byskolan. Sydsvenskan, 14th of November.

Schylter, C. (2015) Mycket svårt rätta felaktigt GMO-beslut. Svenska Dagbladet, 17th of January.

Sempler, K. (2015) Växtförädling och genförändrade grödor. Ny Teknik, 29th of April.

- Smith, D. (2015) As Americans scan their food choices, will they choose to purchase organic? *Michigan State University Extension*, 29th of March.
- Smith-Spangler, C., Brandeau, M. L., Hunter, G. E., Bavinger, J. C., Pearson, M., Eschbach, P. J., Sundaram, V., Liu, H., Schirmer, P. Stave, C. Olkin, I. & Bravata, D. M. (2012) Are organic food safer or healthier than conventional alternatives? A systematic review. *Annals of Internal Medicine*, vol. 157, no. 5.
- Spector, D. (2015) The evolutionary reason you always want to eat sugar. Business Insider, 29th of April.
- Spencer, B. (2015) A glass of cranberry juice is packed with more sugar than cola: Officials warn some fruit drinks have more than a day's recommended intake in a single serving. *The Daily Mail*, 5th of April.
- Spross, Å. (2014) Fiberrik frukt sänker stroke-risk. Uppsala Nya Tidning, 17th of December.
- Steinert, M., & Leifer, L. (2010, July). Scrutinizing Gartner's hype cycle approach. Technology Management for Global Economic Growth (PICMET), vol. 10, pp. 1-13.
- Stout, S. (2015) Consumers are buying more organic food than ever before. *The Times*, 23rd of April.
- Strazzullo, P., D'Elia, L., Kandala, N. & Cappuccio, F.P. (2009) Salt intake, stroke, and cardiovascular disease: meta-analysis of prospective studies. *BMJ: British Medical Journal*, vol. 339, no. 7733, pp. 1296-1296.
- Strömberg, L. (2015) Expert: tillsatt protein helt onödigt. GöteborgsPosten, 22nd of January.
- Sundin, A. (2015) Proteinhajpen behov eller påhitt?. Konsumentföreningen Stockholm. http://www.konsumentforeningenstockholm.se/Global/Konsument%20och%20Milj%C3%B6/Dok umentation%20seminarier/Proteinhajpen_behov%20eller%20p%C3%A5hitt_Anki%20Sundin.pdf (2015-04-29)
- Svensk Egenvård (2014) Försäljningsstatistik för egenvårdsprodukter i Sverige. http://www.svenskegenvard.se/images/stories/statistik/2013/frsljningsstatistik%20svensk%20egenv rd%202013.pdf (2015-02-05).
- Svensk Egenvård (2015) Branschen. http://www.svenskegenvard.se (2015-02-05).
- Svensk Handel (2014) Hälsotrender styr konsumenternas val. http://www.svenskhandel.se (2015-05-16)
- Sveriges Radio (2015a) Snart kan det serveras mer ekologiska och närproducerade livsmedel i skolor, förskolor och äldreomsorgen runt om i Sörmland. http://sverigesradio.se/sida/artikel.aspx?programid=87&artikel=6118944 (2015-04-28)
- Sveriges Radio (2015b) Satsning för att öka kunskapen om GMO. http://sverigesradio.se/sida/artikel.aspx?programid=415&artikel=6150367 (2015-05-07)

- Sveriges Radio (2014) Ekologiskt bra men inte bevisat bra för hälsan. http://sverigesradio.se/sida/artikel.aspx?programid=86&artikel=5845282 (2015-04-27)
- Taubes, G. (2001) The soft science of dietary fat. Science, vol. 291, no. 5513, pp. 2536-2545.
- The Guardian (2015) Fat guidelines lacked solid scientific evidence, study concludes. 10th of February.
- Tomlinson, A. (2015) A healthy diet means sticking to a nutritionally balanced routine. *The National*, 23th of April.
- United Minds (2014) Food change 2014 framtidens mattrender. http://www.unitedminds.se/blogg/foodchange-2014-framtidens-mattrender (2015-05-16)
- Vartanian, L. R., Schwartz, M. B. & Brownell, K. D. (2007) Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *American Journal of Public Health*, vol. 97, no. 4, pp. 667-675.
- Veckans Affärer (2015) Matjätten tar efter amerikanska succén lanserar ekobutik. 6th of May.
- Vox (2015) The gluten free craze is out of hand. Here are 8 facts to counter the madness. http://www.vox.com/2015/4/30/8517749/gluten-free-diet-nutrition-celiac-disease (2015-05-02)
- Wactawski-Wende, J., Jackson, R. D., Parker, L. M., Beresford, S. A. A., Van Horn, L., Hendrix, S. L., Stefanick, M. L., Wallace, R. B., Hubbell, F. A., Hays, J., Black, H. R., Robbins, J., Whitlock, E., Kotchen, J. M., Ritenbaugh, C., Perri, M. G., Harrigan, R. C., Mossavar-Rahmani, Y., Anderson, G. L., Manson, J. E., Bassford, T., Bowen, D., Gass, M., Margolis, K. L., Kuller, L. H., Heiss, G., Ockene, J. K., Rossouw, J. E., Vitolins, M. Z., Brzyski, R. G., Caan, B., Brunner, R. L., Prentice, R. L., Hsia, J., Assaf, A. R., Sarto, G. E., Snetselaar, L. G., Chlebowski, R. T., Lasser, N. L., Johnson, K. C., Heber, D., Lewis, C. E., Howard, B. V., Lane, D. S., Phillips, L., LaCroix, A. Z. & Langer, R. D. (2006) Low-fat dietary pattern and risk of colorectal cancer: the Women's Health Initiative randomized controlled dietary modification trial. *Journal of the American Medical Association*, vol. 295, no. 6, pp. 643-654.
- Wagner, H. (2015). Cashing In On Macroeconomic Trends. *Investopedia*. http://www.investopedia.com/articles/07/global trends.asp (2015-03-16)
- Warner, J. (2014) How to follow a low-cholesterol diet. *Everyday Health*, 20th of November.
- Weber, C. L. & Matthews, H. S. (2008) Food-miles and the relative climate impacts of food choices in the United States. *Environmental Science & Technology*, vol. 42, no. 10, pp. 3508-3513.
- White, V. (2015) Consumer pressure for clearer definition of "natural" food. *New Food Magazine*, 23rd of April.
- Whoriskey, P. (2015a) Even some who make 'natural' food aren't sure. *The Washington Post*, 21st of April.
- Whoriskey, P. (2015b) More scientists doubt salt is as bad for you as government health guidelines say. *The Washington Post*, δ^{th} of April.

Wicklén, J. & Merckx, J. L. (2014) Ny D-vitaminberikning kritiseras. SVT Nyheter, 25th of November.

- Wilson, B. (2015) Why high-protein diets could do more harm than good. *The telegraph*, 6th of May.
- Woodside, A. (2010) *Case study research : theory, methods and practice.* Bradford: Emerald Group Publishing Ltd.
- World Health Orgnaization (2006) Guidelines on food fortification with micronutritients. http://www.who.int/nutrition/publications/guide_food_fortification_micronutrients.pdf (2015-05-08)
- World Health Organisation (2015) *WHO Definition of heath* http://www.who.int/about/definition/en/print.html (2015-02-29)
- Wångersjö, M. (2008) Så farligt är kolesterolet. Aftonbladet Hälsa, 3th of November.
- Yates, D. (2015) Thousands of illnesses linked annually to organic food. *The Western Producer*, 13th of April.
- Zacka, M. (2014) Functional food: health and marking potential. *Food Processing*, 14th of May.
- Zaraska, M. (2015) Pass the salt, please. It's good for you. The Washington Post, 4th of May.
- Åkesson, J. (2015) Kära krögare, ni måste sluta server gårdagens mat. Veckans Affärer, 8th of May.
- Örnberg, C. (2014) Här är den nya nyttiga pastan 10 alternativ. Expressen Hälsoliv, 18th of August.
- Örwall Lovén, A. (2014) Mjölkdrickande kan öka dödlighet. Svenska Dagbladet, 29th of October.

Östman, K. (2008) Så slipper du svullen mage. *Aftonbladet*, 6th of October.

Appendix 1 - Interview Guides

Questions for professors at University of Gothenburg:

- 1. How have the dietary advices changed over the years?
- 2. Why do they change?
- 3. What influences the dietary advices to change?
- 4. Do you believe we at some point will know what is healthy to consume?
- 5. Are there other reasons, besides dietary advice, that affects consumers' perceptions of health food?

Questions for nutritionists and the senior brand manager at ICA:

- 1. What does good health mean?
- 2. What drives the great interest in health that is present today?
- 3. What is health food?
- 4. What factors determine whether food is considered healthy today?
- 5. What health trends in terms of food do you believe will persist?
- 6. Where do new trends derive from?
- 7. Which new trends do you believe will grow the coming year?

Appendix 2 – Survey

Vad är hälsosam mat för dig?

Tack för att du tar dig tid att svara på vår korta undersökning om dagens syn på hälsosam mat!

* 1. Kön			
Kvinna			
O Man			
Annat			
* 2. Ålder			
0-20			
21-34			
35-49			
50-64			
65+			

* 3. Till vilken grad gör du idag aktiva val för att köpa och konsumera hälsosam mat?

Aldrig	Sällan	Ibland	Ofta	Alltid	Det är inte jag som väljer
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

* 4. Hur viktiga är följande faktorer för att du ska uppfatta ett livsmedel som hälsosamt?

	Varken viktigt eller										
	Inte alls viktigt	Mindre viktigt	oviktigt	Ganska viktigt	Mycket viktigt	Ingen åsikt					
Ekologisk	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Fri från genmodifiering (GMO)	\bigcirc	0	\bigcirc	\bigcirc	0	\bigcirc					
Närproducerad	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Vitaminberikad	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Högt fiberinnehåll	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Fettsnål	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Låg salthalt	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Hög proteinhalt	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Naturliga ingredienser (d.v.s. inga artificiella ingredienser)	0	0	0	0	0	0					
Sockerfri	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Glutenfri	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Vegetarisk	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Låg kolesterolhalt	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Laktosfri	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
Fri från konserveringsmedel	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					

Fler faktorer som är viktiga (valfritt)

* 5. Skulle du vara villig att betala mer för en produkt som har följande egenskap jämfört med en likvärdig produkt utan den egenskapen?

	Ja	Nej	Ingen åsikt
Ekologisk	\bigcirc	\bigcirc	\bigcirc
Fri från genmodifiering (GMO)	\bigcirc	\bigcirc	\bigcirc
Närproducerad	\bigcirc	\bigcirc	\bigcirc
Vitaminberikad	\bigcirc	\bigcirc	\bigcirc
Högt fiberinnehåll	\bigcirc	\bigcirc	\bigcirc
Fettsnål	\bigcirc	\bigcirc	\bigcirc
Låg salthalt	\bigcirc	\bigcirc	\bigcirc
Hög proteinhalt	\bigcirc	\bigcirc	\bigcirc
Naturliga ingredienser	\bigcirc	\bigcirc	0
Sockerfri	\bigcirc	\bigcirc	\bigcirc
Glutenfri	\bigcirc	\bigcirc	\bigcirc
Vegetarisk	\bigcirc	\bigcirc	\bigcirc
Låg kolesterolhalt	\bigcirc	\bigcirc	\bigcirc
Laktosfri	\bigcirc	\bigcirc	\bigcirc
Fri från konserveringsmedel	\bigcirc	\bigcirc	0

Appendix 3 - Macro Trends

Technology	Count	Euromonitor	GlobalTrends	MCE	BCG	Investopedia	Bain	Gartner	McKinsey	Frederic Meyer
Ubiquitous Connectivity - A more connected world	6	X	X		X		X	X	X	
Internet of Things	4		X	X				X		X
Big Data & Big Data analytics	4			X	X			X		X
Technology development large role in growth	2			X			X			
Virtual & Augmented reality	2		x							X
Wearable technology - the end of data privacy	2		X							X
The technology inside you	2		x							X
Artificial intelligence	1						X			
Demography										
An emerging middle class (emerging economies)	6	х		Х		X	X		X	X
An ageing world	3	х							x	х
Urbanization	1									X
Environment										
Intensified competition for finite natural resources	5		х	Х		X	X			X
The climate challenge	3	х	х			X				
Think zero - towards a circular economy	2		х							X
Sacrificing for a better world	1		х							
Economy										
Increasingly global labour market	2					x			x	
Intensified war for talent	2					x				X
Driving the entrepreneurial economy	1		x							
Old infrastructure require new investments	1						X			
Multi-sided business models	1			x						
Consumer behaviour										
Sustainible and ethical consumption	4			x	x				x	X
Empowered and discriminating consumers	1				x					
Retail, brand & marketing trends										
New age of targeted marketing	1				x					
Growing power of retailers	1				x					
Blurred boundaries of channels	1				x					
From store to online retail	1				x					

	Count	Euromonitor	GlobalTrends	MCE	BCG	Investopedia	Bain	Gartner	McKinsey	Frederic Meyer
Helath										
Health and wellness concerns	1								X	
Consumers going green	1								X	
Other										
China goes global	1	X								
The rise of "soft" innovation	1						X			

References

Bain & Company (2011) The great eight: Trillion-dollar Growth Trends to 2020. http://www.bain.com/Images/BAIN_BRIEF_8MacroTrends.pdf (2015-03-16)

BCG (2012) Ten Trends That Are Reshaping the Retail Industry. https://www.bcgperspectives.com/content/articles/retail_digital_economy_retail_2020_ten_trends/ (2015-03-16)

Euromonitor International (2012) 10 Global Macro Trends for the Next Five Years. http://www.euromonitor.com/10-global-macro-trends-for-the-next-five-years/report (2015-03-16)

Gartner (2014) Gartner Identifies the Top 10 Strategic Technology Trends for 2015. http://www.gartner.com/newsroom/id/2867917 (2015-03-16)

Global Trends (2014) *GT briefing December 2014 10 trends to watch for 2015*. http://www.globaltrends.com/monthly-briefings/60-monthly-briefings/216-gt-briefing-december-2014-10-trends-to-watch-for-2015 (2015-03-16)

MCE (2012) Macro-Trends. http://www.mce-ama.com/strategy-implementation-issues/macro-trends/#section8 (2015-03-16)

McKinsey & Company (2010). *Five forces reshaping the global economy: McKinsey Global Survey results*. http://www.mckinsey.com/insights/globalization/five_forces_reshaping_the_global_economy_mckinsey_global_survey_results (2015-03-20)

Wagner, H. (2015). Cashing In On Macroeconomic Trends. Investopedia. http://www.investopedia.com/articles/07/global_trends.asp (2015-03-16)