



**Faculty of Business Administration**  
School of Economics & Management  
**LUND UNIVERSITY**

Spring 2007

# Profiling the Fortified Health Food Consumer

-a study of Swedish margarine

**International Marketing and Brand Management**

Spring 2007

**Authors:**

Orin Hickerson  
Mikael Larsson  
Anders Nilsson

**Supervisor:**

Johan Anselmsson

## Abstract

- Title:** Profiling the Fortified Health Food Consumer
- Date of Seminar:** May 29, 2007
- Course:** Bus 809 Master Thesis in Marketing
- Author:** Orin Hickerson, Mikael Larsson, Anders Nilsson
- Supervisor:** Johan Anselmsson
- Key words:** Fortified Food, Health, Segmentation, Purchase Loyalty, Margarine
- Aim of the Thesis:** The aim is to gain a holistic understanding of who are the consumers of fortified health food products; moreover to highlight *what are the characteristics of the consumers who are likely to purchase these products.*
- Method:** This thesis employed a quantitative strategy with an inductive and a grounded theory approach. The data was collected from a research company.
- Theoretical Perspective:** Existing theories in the area of functional food were not possible to find. Considering that the area is new this seems plausible; however, previous studies provided insight for substantive framework. As for the theoretical framework, it was built upon existing segmentation variables.
- Empirical Foundation:** GFK, world's 4<sup>th</sup> largest Research Company, provided us with data which converted to information. This company specialises in information on Custom Research, Retail and Technology, Consumer Tracking, Media and HealthCare.
- Conclusion:** Distinguishing trademarks among the segments of margarine could be found. Difference in terms of demographic, geographic, psychographic and most interesting behavioural aspects could be found among the product segments. By the approach of backward segmentation and incorporating further knowledge could be gained as to further give fruitful information of typifying the fortified food consumer.

## **Acknowledgements**

Our sincere thanks goes to our supervisor Johan Anselmsson at Lund University, for his outstanding support, guidance and assistance throughout the thesis. Without his supervision this thesis would not be possible.

We would like to thank Johan Anselmsson and Niklas Persson for providing us with data for our first study. We would also like to thank Gfk for their contribution of extensive data about household purchases.

Orin Hickerson, Mikael Larsson, Anders Nilsson  
*Lund 29 May*

# TABLE OF CONTENTS

<b>1. Introduction.....</b>	<b>6</b>
1.1 Background.....	6
1.2 Theoretical Concerns .....	8
1.3 Research purpose .....	9
<b>2. Conceptual framework.....</b>	<b>10</b>
2.1 Introduction .....	10
2.2 Formal framework of segmentation .....	10
2.2.1 The process of target marketing .....	10
2.2.1.1 Demographic .....	11
2.2.1.2 Geographical segmentation.....	12
2.2.1.3 Psychographic segmentation.....	12
2.2.1.4 Behavioural segmentation .....	12
2.3 Substantive framework of segmentation .....	12
2.3.1 Demographics.....	12
2.3.1.1 Gender .....	13
2.3.1.2 Age .....	13
2.3.1.3 Education & Income .....	14
2.3.1.4 Household.....	14
2.3.2 Geographics.....	14
2.3.3 Psychographics.....	14
2.3.3.1 Attitudes towards health .....	14
2.3.3.2 Lifestyle.....	16
2.3.4 Behaviour .....	17
2.4 Analytical framework .....	18
<b>3. Methodology .....</b>	<b>19</b>
3.1 Research design .....	19
3.2 Research strategy .....	20
3.3 Research Approach.....	21
3.4 Case study .....	22
3.4.1 Limitations .....	22
3.5 Data Collection .....	23
3.5.1 Data Collection Company .....	23
3.6 Validity, Reliability, Generalisability .....	24
3.6.1 Reliability .....	24
3.6.2 Validity.....	24
3.6.2.1 Secondary data .....	24
3.6.3 Generalisability .....	25
<b>4. Results.....</b>	<b>26</b>
4.1 Analysis of our first study.....	26
4.1.2 Behaviour .....	26
4.1.3 Summarizing test of Behaviour .....	26
4.2 Analysis of our second study .....	27
4.2.1 Demographics.....	27
4.2.1.1 Descriptive results .....	27
4.2.1.1.1 Gender.....	27
4.2.1.1.2 Age.....	27

4.2.1.1.3 Martial status.....	27
4.2.1.1.4 Living.....	27
4.2.1.1.5 Members within the household.....	28
4.2.1.1.6 Women in the households.....	28
4.2.1.1.7 Number of children under 18 years of age.....	28
4.2.1.1.8 BMI – group.....	28
4.2.1.1.9 Education.....	28
4.2.1.1.10 Occupation.....	28
4.2.1.1.11 Working household members.....	29
4.2.1.1.12 Household Income.....	29
4.2.1.2 Summarizing test of demographics.....	29
4.2.2 Geographics.....	30
4.2.2.1 Results of geographics.....	30
4.2.2.1.2 Region and city size.....	30
4.2.2.2 Summarizing test of geographics.....	30
4.2.3 Psychographics.....	31
4.2.3.1 Results of psychographic.....	31
4.2.3.1.1 Price consciousness.....	31
4.2.3.1.2 Health and spending.....	31
4.2.3.2 <i>Summarizing test of demographics</i> .....	32
4.2.4 Behaviour.....	33
4.2.4.1 <i>Results of purchase loyalty</i> .....	33
4.2.4.2 <i>Summarizing test of Behaviour</i> .....	33
<b>4.2.4 Discriminant analysis.....</b>	<b>34</b>
4.2.4.1 Results of discriminant analysis.....	34
4.2.4.1.1 Demographic variables.....	34
4.2.4.1.2 Geographic variables.....	34
4.2.4.1.3 Psychographic variables.....	34
4.2.4.1 <i>Summary of discriminant analysis</i> .....	35
<b>5 Discussion and conclusion.....</b>	<b>36</b>
<b>5.1 Demographics.....</b>	<b>36</b>
5.1.1 Gender.....	36
5.1.2 Age.....	36
5.1.3 Martial status.....	37
5.1.4 Children under 18 years of age.....	37
5.1.5 Education & Household income.....	37
5.1.6 Occupation.....	38
5.1.7 BMI group.....	38
5.1.8 Members within the household.....	38
5.1.9 Women in the households.....	38
5.1.10 Living.....	39
5.1.11 Working household members.....	39
<b>5.2 Geographics.....</b>	<b>39</b>
<b>5.3 Psychographics.....</b>	<b>39</b>
<b>5.4 Behaviour.....</b>	<b>40</b>
<b>5.5 Profile of the consumers.....</b>	<b>40</b>
<b>5.6 Practical and theoretical contributions.....</b>	<b>42</b>
<b>5.7 Further research.....</b>	<b>42</b>
<b>References.....</b>	<b>43</b>
<b>Appendix.....</b>	<b>48</b>

## Tables and figures

FIGURE 1: SCHEMATIC FOR CLASSIFYING THE CONSUMER.....	11
FIGURE 2: PICTORIAL PRESENTATION OF RESEARCH AREA (CONSULTED).....	18
FIGURE 3: METHODOLOGICAL APPROACH.....	19
TABLE 1: MEAN VALUE OF ATTITUDE TOWARDS SELECTED BRAND.....	26
TABLE 2: COMPARISONS OF LIKEABILITY AMONG PREFERRED BRAND.....	26
TABLE 5: GEOGRAPHIC DESCRIPTION OF HOUSEHOLD IN TERMS OF REGION AND CITY SIZE.....	30
TABLE 6: SUMMARY OF TEST STATISTICS OF GEOGRAPHIC VARIABLES.....	30
TABLE 7: CROSS TABLE OF PRICE CONSCIOUSNESS AMONG HOUSEHOLDS.....	31
TABLE 8: SUMMARY OF AVERAGE RATE OF HEALTH AND SPENDING.....	32
TABLE 9: SUMMARY OF HEALTH AND TEST.....	32
TABLE 10: COMPARISON OF PURCHASE LOYALTY.....	33
TABLE 11: COMPARISON OF PURCHASE LOYALTY.....	33

# 1. Introduction

---

*This section of the thesis will give an introduction to the research area, what the practical and theoretical relevance is found and the purpose of our work.*

---

## 1.1 Background

*“According to the Food Act (SFS 1971:511), the term food refers to any foodstuff, beverage, stimulant or other product intended for human consumption, with the exception of products to which the Act of Medicinal Product (SFS 1992:859) is applicable. The term medicinal product refers to products intended for administration to humans or animals, to prevent, detect, palliate or cure disease or disease symptoms, or other similar purpose (SFS 1992:859)” (Health Claims in the Labelling and Marketing of Food Products, 2004 p.5).*

With constant focus on health in society, people have during the recent decade been overwhelmed with health messages of unhealthy living; this can be seen from reports and messages from the government and the media. Ubiquitously in the modern society of the west world, people are showered with advice, information and products regarding health trends, healthy living and lifestyles (Urala et al., 2004). The healthy society, mega trends of health, convenience and pleasure are the key words to keep up with, (Business Insights, 2000). Health is steadily being encompassed by the food industry. The border between medicine and food is diminishing more and more as the food industry strives to provide healthier food options for consumers. Consumers demand for functional health products is motivated by two key elements, the trend towards overall health and an aging population concerned with long-term health, (Business Insight, 2005), but also given the fact that the population across the globe are aging and nations are incurring increased health care cost, (Cash et al., 2006). We will use two definitions for functional health product, more specifically functional food in our research paper. The first definition, more scientific, from the Functional Food Centre at Lund University states that:

*“Functional foods are foods designed to provide a specific and beneficial physiological effect on health, performance and/or well-being extending beyond the provision of simple nutrients. The effect should be documented scientifically. The functional food concept stretches the borders of nutrition. Whereas classical nutrition focuses on essential nutrients and their significance regarding diseases due to deficiency, functional food science focuses on the physiological effects. These effects may be mediated by nutrients, but also by non-nutrients such as dietary fibre and various bioactive compounds, as well as by probiotics and other food qualities, e.g. structural properties”.*

Regarding the second definition, non-scientific, of functional food, it is as follows:

*“Any modified food or food ingredient that may provide a health benefit beyond traditional nutrients it contains” (American Dietetic Association, 1995.)*

Amongst all the changes in the food industry today, two factors which heavily influence consumers' choice of food, whether consumed at home or away from home, are convenience and taste. It is reasonable to say that, in our day and age, convenience determines a great extent when, where, what, how and even with whom we eat (Costa et al., 2005). Also, Gray,

Armstrong and Farley (2003) observed that functional foods have to answer the consumers' needs for convenience, health and good taste (Urala et al., 2005). There is considerable growth in the conventional health food products and functional foods in the food industry, (Heasman et al., 2001). In the Swedish food market, the variations of food, milks, frozen vegetables, corn flakes and others, with the Nyckelhålsmärkt/Green Keyhole is wide thus allowing consumers more freedom to eat, healthier ([www.slv.se](http://www.slv.se)). We consider the conventional health food products to be those with the Nyckelhålsmärkt/Green Keyhole label. According to the National Food Administration's (NFS):

*The keyhole symbol is there to help consumers identify the healthiest options when buying food or when eating in restaurants. Foods labeled with the keyhole symbol are leaner and contain less sugars and salt and more fibre than food products of the same type not carrying the symbol" (<http://www.slv.se>).*

Unlike the wide range of Nyckelhålsmärkt/Green Keyhole products in the Swedish market, there is limited range of products which are considered to be functional food. Even worse, there is no concrete definition for functional foods which creates confusion on the part of the consumers. This confusion stems from the different health associations which have different definitions for functional foods. We observed that Proviva drink, which is a functional food is not labeled with the Nyckelhålsmärkt/Green Keyhole. Considering that functional food is the next stage after conventional healthy food, it creates confusion on the consumers' part as a result of not being labeled with the Nyckelhålsmärkt/Green Keyhole. Another interesting observation is the Zeta's 10% whole-grain pasta which gradually leads consumers towards healthier choices. This indicates that some food companies are willing to meet customers half of the way, or at least 10 % of the way, regarding healthier food products. Nowadays in the Swedish market, some of the key players in functional food market are Unilever, Proviva, Skånemejerier, Rasio and Danone.

The National Institute of Public Health, the Swedish society cost for unhealthy eating habits and lack of physical activity is 233 USD per person every year ([www.foodoresund.com](http://www.foodoresund.com)). The health changes in the food industry are occurring throughout the supply chain, from the manufacturers to the retailers – restaurants and supermarkets. Manufacturers like retailers, being able to understand the needs and motives of the customers signals an alertness to and understanding of the trends that are emerging, sustaining and/or waning in society (McGoldrick, 2002). For instance, the National Restaurant Association's 2006 Restaurant Industry Forecast states that 72% of restaurant customers say they are trying to eat healthier these days (Cobe, 2006). These demands in the marketplace have created ongoing opportunities for companies' functional products such as ProViva, Hjärtans Lust, PrimaLiv, (Skånemejerier), Becel (Unilever), Flora (Unilever) to win the hearts of consumers. In 1994, the world's first probiotic fruit drink, ProViva, was launched, ([www.skanediary.com](http://www.skanediary.com)). Furthermore, in 2002 PrimaLiv becomes Sweden's first Functional Food, ([www.skanediary.com](http://www.skanediary.com)); this was followed by ProViva, as the first probiotic drink in Europe, which was approved as Functional Food product, ([www.skanediary.com](http://www.skanediary.com)). Food retailers and manufacturers are yet to fully capture the healthy hearts of Swedish consumers. A research carried out by Sifo 2001 showed that only a few percent of the Swedish customers buy functional food and only every third knows the term, ([www.sifo.se](http://www.sifo.se)). The functional food trend started in Japan and in the beginning of the 90's the food industry in USA and Western Europe started to develop several products. In the US the functional food market grew from \$15 billion in sales in 1997 to more than \$18.2 billion in 2001. The market for functional food, although relatively small, has been growing steadily in Europe, and in the USA grew



between 15 to 20 per cent and holding a share of 3.7 per cent of the market in UK, and functional beverages having a market share from 4.3 (UK) to 9.81 (USA) per cent in 1999, (Frewer et al., 2003). These figures show that functional foods grew ten times faster than food products in general. Furthermore, in 2001, functional beverages represented another \$7 billion in sales with growth rates reaching 12 % (Leighton, 2002). 65% of the functional food market is dairy products. The leading countries in Europe are France where 11% (1997) of the yoghurt is probiotic and Germany where it is 13% (1997). The biggest players on the food market today are Nestle followed by Campina Melkunie and Arla Foods.

The healthy life style is an area that food industry companies have rather high expectations on. They are focusing more and more on trying to meet the consumers' demand for eating and living healthy. In this context, functional food has a pivotal role. These purpose of functional food is not only to satisfy hunger and provide people with necessary nutrients, but also to prevent diseases that are nutrition-related and increase both the physical and mental well-being of the consumers. There are already a lot of consumers who choose Nyckelhåls-labelled alternatives on the food market today. To view functional food as an extension of Nyckelhålsmärkt can provide an understanding of those who buy functional food today. The study might show that there is a linear relationship between, for example age and eating healthy, i.e. older people tend to prefer healthy food. If that is the case, then older people are the prime target for functional food marketing. The development of functional foods does not only regard to the production of new kinds of products. It requires new knowledge, new processes, new companies and a new way to market these products from a management perspective (Gilbert, 2000). The food market is seen as a mature market which is characterized by efficiency- and volume-oriented performance. Food products are of the basic genre, and development of new products means in general, a modification of already existing products. Increasing globalization has further ignited competition between companies; a good way to strengthen the Swedish companies' position on the European market is to produce food products with additional value for the consumer (Mark-Hebert, 2002; Menrad et al., 2000). Proprietary high-end products can give these companies an additional value by a price rise on products, profitable license agreements and a strengthened image.

In spite of growth prospects in the health food industry and consumers interest in healthier products, there is still an underlying issue of pinpointing who are the Nyckelhålsmärkt – Green Keyhole – and functional food consumers. In terms of knowledge, the food industry is aware that Danish consumers in particular were suspicious that functional foods, which they judges as unnatural and impure, (Verbeke, 2004). The typical profile of healthy consumers includes their attitudes and other segmentation variables. Clearly, it is pivotal to the success of manufactures, retailers and marketers in the food industry, that consumers are segmented in order to suffice their needs and maintain the positive growth prospects of the industry.

## **1.2 Theoretical Concerns**

A Swedish market research has shown that the customers have difficulties in understanding the use of functional food, (Jälminger, 2001). Even though the positive effects on health may be well documented, consumers are not purchasing the healthier but expensive products. The study indicates that the customers are sceptical to health statements (ibid); this similar finding was discovered about Danish consumers. In Sweden, health statements were experienced as hard to comprehend and consumers became scared of the unknown ingredients of the products, (ibid). Miscommunication has contributed to the poor acceptance of healthier foods.

Despite the communication issue, it should be first priority of the food industry to know “who is their market for healthier foods”.

In the area of healthy foods , some of the previous studies that were conducted are as follows: 1) functional food investigation on how much healthier a product must be to justify a higher price premium (Kilsby et al., 1998); 2) looking at consumer attitudes whether adding certain substances beneficial to health will increase consumers’ value perception of a product (Poulsen, 1999); 3) experimentally testing how nutritional information is processed by consumers (Corney et al., 1994; Mazis et al., 1997); 4) evaluating how consumers’ react to messages about unhealthy ingredients in food (Chipman et al, 1995); 5) and looking at how trends in nutrition information have affected overall spending patterns (Ippolito et al., 1994).

On an overall, consumer characteristics have been given on a general basis; studies regarding consumer background characteristics regarding age, gender, income and education as well as cognitive and attitudinal factors determining the acceptance of functional food acceptance. Even the investigation of consumer purchasing regular non-modified consumer goods have been conducted out in previous studies, especially within the area of economics, (Andersson, 1994) with regards to socioeconomic and demographic variables.

With a focus on Sweden, studies of attitudes towards health and functional food among Swedes are known, although they are general in the sense; one common research area is the perceived value of functional food, (HealthFocus International, 2003; 2005). These studies provide input about the background of the consumers and their consumers view certain products or product features, and it is not clearly explored in research what is the actual difference between consumers of various consumers segments, i.e. made an in-depth analysis of the consumer characteristics. Jälminger (2001) has investigated about Swedish consumer’s attitude towards functional food in terms of what knowledge and acceptance. Furthermore, attitudes were mostly measured upon consumer’s perception of functional food and its not always clear whether the consumer actually buys fortified products, hence consumer buying intentions are mostly taken into consideration, not per se actual purchasing of products. In essence, there is a knowledge gap to be fulfilled pertaining to consumer segmentation of the fortified health food market. Previous studies contribute to the fragments necessary for profiling the healthy consumer; however, these studies do not present a holistic profile of the typical healthy consumers. For instance, functional food users can be labelled as being more innovative and more educated; still this is not significant information for segmenting the market; understanding the market from a segmentation view is important for both theoretical and practical reasons. Only with a grasp of consumer knowledge, which includes holistic view of the healthy consumer and the health consumption connected to their distinct character, will industry be able to better position healthy foods thus fulfil there high expectations.

### **1.3 Research purpose**

Our aim is to gain a holistic understanding of who are the consumers of fortified health food products; moreover to highlight *what are the characteristics of the consumers who are likely to purchase these products.*

## 2. Conceptual framework

---

*This chapter will introduce the theoretical selection. The analytical framework will also be presented, derived from presented theory and previous research.*

---

### 2.1 Introduction

Depicting from segmentation and health with regards to functional food our framework is divided into general (formal) versus more empirical (substantive) research and theory as proposed by Glaser & Strauss (1967 cited in Saunders, 2003) in their ideas about grounded theory development. Our aim for the conceptual framework is to put emphasis on the formal and substantive theory with regards to the segmentation of the health food market. The conceptual framework of segmentation will reveal how much information we are capable of achieving with the chosen approach of segmentation. Through the formal framework, a general description of the logic behind segmentation and the process of how it is conducted will be presented. The substantive theory is specific of segmentation towards the market aimed towards food products of health.

### 2.2 Formal framework of segmentation

The most commonly viewed approaches to segmentation has been purposed by Haley (1968) are forward selected segmentation and backward selected segmentation, where the first mentioned approach is through searching for specific needs of the consumer. The latter form of approach of segmentation is through the sought benefits in choice of behaviour, Haley (1968). Through benefit segmentation, it is possible to identify market segments by casual rather than descriptive factors. Some modern proposal of segmentation stems from this approach, asking of the profitability of the consumer, a form of financial segmentation, proposed by Wayland et al., (1997).

The choice has by Peppers et al., (1997) proposed that the most essential customer characteristics is in terms of needs and profitability with the decision rule that if the variation between customers is greater than within needs than of profitability, the choice of segmentation should be based upon needs and vice versa.

Even though needs and behaviour according to Söderlund (1998) is higher compared to personality and behaviour, lifestyle and behaviour, demographics and behaviour, there are relationships where the correlation has been low, sometimes due to inability of the consumer to realize a purchase. It can thus be argued that one have to separate intentions with actual purchase or situational restrictions hindering our attempt of purchase, no determined purchase intention such as impulse buying or due to the fact that the researchers have not included the specific needs driving behaviour (Söderlund, 1998; 139).

#### 2.2.1 The process of target marketing

The form of segmentation is a part of target marketing involving the process of market segmentation, market targeting and market positioning, (Armstrong & Kotler, 1997;

Pelsmacker et. al, 2004). The focus for this thesis will be placed on the market segmentation, by identifying the bases for segmentation for the market and develop segment profiles, (Armstrong & Kotler, 2003). Other researchers such as Söderlund (1998) has formed a whole stage process of segmentation expanding to involve the following questions in terms of, what the customer wants, which message should we deliver, how can we transfer the message to the customer, how can we meet the customer and whether or not the customer is profitable. The formal structure on basis of variables to investigate upon has been through the categories of demographics, geographic, psychographic and behavioural. According to Rao et al., (1998) there has been an emphasis on simple and descriptive use of demographic variables, with more enhanced models explaining the impact of age. Additionally, in accordance with Rao et al., (1998) the most common ways of classifying the consumer has been through general descriptive characteristics with demographic and socioeconomic background variables and attitudinal and psychographic variables.

Figure 1: Schematic for classifying the consumer

### Bases of Segmentation

<b>Consumer Markets</b>	
General Descriptive Customer Characteristics	Characteristics Related to Consumer Behaviour
<i>Demographics</i>	<i>Benefits sought</i>
Sex	
Age	<i>Desired application</i>
Marital status	
Number and age of children	<i>Purchase and loyalty patterns</i>
Stage in life cycle	Usage characteristics
Subcultures	Heavy versus light
Race	User versus nonuser
Ethnic group	Store loyalty
Geographic location	
<i>Socioeconomic characteristics</i>	<i>Participation in the adoption and diffusion process</i>
Income	Information and influences patterns
Education	Innovativeness
Occupation	
Social class	<i>Brand behaviour</i>
	Loyalty
<i>Psychographics (personality and lifestyle characteristics)</i>	Attitudes
Personality	Intentions
Attitudes	Perceptions
Opinions	<i>Preferences</i>
Lifestyle	
Ocassions for use/consumption	<i>Sensitivity to marketing mix elements</i>
	Price
	Advertising
	Promotion

Source: Rao & Steckel, 1998, p.26

#### 2.2.1.1 Demographic

Demographic segmentation divides the market in terms of age, gender, household size, income, marital status, number and age of children, profession, religion, nationality and stage in life cycle, (Rao et al., 1998). With the characteristics being easy to measure, the segments often being very large, projectable and the data being accessible, (Rao et al., 1998). Furthermore, the consumers' perception of needs and wants are often coherent with the geographic variables.

### **2.2.1.2 Geographical segmentation**

Geographical segmentation is carried out where the company chooses its focus on basis on geographical units by dividing the scope by world country or region, country region, city or metro size, neighbourhood, density or climate (Armstrong & Kotler, 2003). The company's approach is could be due to certain geographical differences, due to cultural differences (Pelsmecker et al, 2004). A certain form of geographic segmentation has been formed where the households with similar geographic and demographic attributes tend to live in similar areas and show similar lifestyles. A possible way of grouping is with post code, hence certain lifestyles are possible to determine in a certain area code.

### **2.2.1.3 Psychographic segmentation**

Psychographics are being used to describe psychological elements where the segmentation has been based on social class, values, personality and lifestyle (Rao et al., 1998). For lifestyle, marketers focus on consumers' major AIO dimensions – activities (work, hobbies, shopping, social events, sports), interest (food, fashion, family, recreation), and opinions (about themselves, social issues, business, product) (Armstrong & Kotler, 2003). Addressing the consumers' general attitudes to health is included in psychographic segmentation as well. Psychographic variables are meant to supplement demographic and to be noted is consumers who are placed within the same demographic segment may just as well have different psychographic profiles. This means that the group adjustment can be large if a psychographic and demographic segmentation is applied to the same population. Drawbacks with psychographic segmentation are that they are complex and costly to carry out.

### **2.2.1.4 Behavioural segmentation**

Behavioural segmentation is executed with regards to consumers' knowledge, attitudes and usage of a certain product. Segmentation variables such as *opportunity* can be utilised to divide the sample with regards to, when the idea of purchasing arose, and this puts forward the particular purchase or usage. *Sought benefits*, grouping based on certain product benefits. *Usage status*, the market is segmented into users and non-users, potential users and first time users. *Usage frequency* based on the usage of the product. *Loyalty status*, segmenting based on how loyal the customers are towards the specific product, repeat purchase, or brand, favourability. According to one school of thought, loyalty only spurs from behaviour, such as repeat purchase, and for another school, they claim that loyalty spurs from attitude, meaning a favourable opinion towards a product, brand or company (Bandyopadhyay et al., 2006). For our concern, we will examine purchase loyalty, and brand loyalty to segment the market from behavioural perspective.

## **2.3 Substantive framework of segmentation**

### **2.3.1 Demographics**

Studies of consumer characteristics have been conducted in previous studies of functional food, and it has been concluded that socio-demographic factors explain differences in the acceptability of functional foods. The acceptability of functional foods has been related to both socio-demographic backgrounds, (Nirva et al., 2007; Verbeke, 2004), as well as other explanatory roles of health, healthy eating and ideas about technology and the naturalness of food in peoples' lives (Nirva et al., 2007). Let alone, demographic variables will not fulfil the purpose of defining the consumers target (Gilbert, 2000). Even though socio-demographic

factors have been taken into consideration, it might only explain the acceptability of functional food to a certain degree, (Urala et al., 2003; Verbeke, 2005). The possible reason for explaining the low degree of acceptability of functional food might be the fact of the multidimensionality of acceptability (Urala et al., 2004), as Nirva et al., (2007) concludes that these results of socio-demographic variables relate dissimilarly to the different dimensions.

Of previous studies considering demographic and socioeconomic background factors of the acceptance of functional food, most studies have covered are gender, education, income and age (Beardsworth et al., 2002; Anttolainen et al., 1998; Verbeke, 2004; Nirva et al., 2007; Wruck, 1992, 1995). Elaborating on further variables, Anttolainen et al. (2001) considered marital status, occupation, employment/occupation, employment status and urbanization as well as presence of young children, and presence of ill family members to be of relevance as socio-demographic determinants of functional food acceptance as well as pregnancy and smoking status (Havas et al., 1998). For example, Anttolainen et al (2001) stated in a study of typifying the characteristics of Finnish consumers, that consumers of functional food margarine tended to be better educated, had higher income, were employed more often in white-collar occupations, lived in cities and mostly likely to be employed.

### ***2.3.1.1 Gender***

Previous studies of consumer regarding functional food have shown that gender has an impact of the purchase decision. Childs (1997) identified the US functional food consumer as being female. Previous findings have showed that women are most likely to have adopted functional foods in their diets, (IFIC, 1999; Poulsen, 1999, Verbeke et al., 2004). One possible reason with women's stronger purchase interest (Childs, 1997; Gilbert, 1997) through Verbeke (2004) is especially important given their primary role as the person responsible for food purchasing. In general, women have been shown to be more reflective about food and health issues and they seem to have more moral and ecological misgivings about eating certain foods than men, who are more confident and demonstrate a rather uncritical and traditional view of eating (Beardsworth et al., 2002; Gilbert, 1997; Kubberodet al., 2002 cited in Verbeke et al. 2004).

### ***2.3.1.2 Age***

Anttolainen et al. (1998) showed that most consumers of plant stanol ester margarine appear to be affluent, older adults with a history of cardiovascular disease. The largest consumer group of functional foods tended to be middle aged, (IFIC, 2000, 2005; Poulsen, 1999) with some varying age span, 35-55 year (Childs, 1998), 45-75 year (IFIC, 2000), 55 years and above (Gilbert, 1997). Middle-aged, 45–59 year, have shown to have the most positive experiences, whereas the people of 60 years of age and above, were most concerned about functional foods (Nirva et al., 2007). The middle-aged, on the other hand, seems to be the most optimistic age group, irrespective of health efforts relating to cholesterol, blood pressure or supplement usage. Interestingly though, age did not have an effect on assessments of the quality and safety of functional foods as such, but did so on 'society level' concerns (Nirva et al., 2007).

It appears that even though many functional foods are marketed especially for relieving problems related to ageing, such as high cholesterol and blood pressure, it was the elderly who were most pessimistic about functional foods (Nirva et al., 2007). Elderly, 65 years and

above would rather eat more natural foods to obtain disease-preventative properties than young people, 18-24 (Childs, 1997).

### **2.3.1.3 Education & Income**

Previous studies taken the education level into account have shown that consumers with higher education follow a more healthful diet, (Prättälä et al, 1992; Helakorpi et al, 1998; Childs, 1998), such as college students in the U.S, (IFIC, 1999; Gilbert, 1997). However, Poulsen (1999) have pointed towards higher acceptance among the lower educated. Hilliam (1996) posited that purchasing of functional foods in Europe is biased towards the higher socio-economic groups, reflecting a higher willingness or ability to pay a price premium, as well as better knowledge and higher awareness. IFIC (2005) points that Americans are most likely to be. Consumers with the least education had less positive experiences, were more concerned and demanded stricter regulation than those with more education. The relationship between education and acceptability implies that the appropriation of functional foods cannot escape socio-economic background factors (Nirva et al., 2007). Childs (1998) has shown that consumers of functional food in America tended to belong to a higher income class. Among those most likely to be very interested in learning more were consumers with the highest education (38 % of those with graduate or professional degrees vs. 31 % of college graduates and 26 % of those with high school or less), and higher-income consumers (32 % of those with an income \$50,000 or more vs. 25 % of those with an income less than \$50,000) (IFIC, 2005).

### **2.3.1.4 Household**

Another relevant socio-demographic factor pertains to the presence of young children in the household. Furthermore, parenting triggers focus on nutrition (Childs, 1997), which yields a search for nurturing benefits through the provision of wholesome foods that lay a strong foundation of health for children (Gilbert, 2000). Thus, shoppers with children are believed to be more likely to look for fortification in their foods (Gilbert, 1997).

Finally, experience with relatives loss of good health and associated economic and social consequences have been reported to act as an incentive to adopt disease preventative food habits (Childs, 1997).

## **2.3.2 Geographics**

Studies in the area of geographic and functional food are very limited. However, one case of a study of this nature was conducted on the Finnish population. As mentioned earlier, that consumers of functional food margarine tended to be better educated, had higher income, were employed, had higher income, were employed more often in white-collar occupations, *lived in cities* and mostly likely to be employed (Anttolainen et al, 2001). We believe a similar inference can be drawn about consumers of fortified foods.

## **2.3.3 Psychographics**

### **2.3.3.1 Attitudes towards health**

Healthiness is one of the most important frequently mentioned reasons behind food choices in EU countries (Lappalainen et al., 1998) through Urala et al. (2003). Former studies reveal that consumers consider themselves responsible for their state of health and diseases; furthermore their personal health outcomes are connected to their personal behaviour as opposed to their environment (Urala et al, 2003). Even though, consumers have control over their behaviour,

their attitudes with regards to health are heavily influenced by the information made available by governmental health organizations, corporations and the education level they possess.

The social and cultural constructs of society directly affects individuals' perception of health, as well. When a group of consumer were asked about their knowledge of health "no less than 78.4 % of them "agreed" or "strongly agreed" that information on healthy eating was widely available; moreover, an overwhelming 85.2 % said they "agreed" or "strongly agreed" with the statement that "I feel confident that I know what foods I should eat to form a healthy balance diet" (Beardsworth et al, 2002). However, there is a gap in the knowledge that consumers have pertaining to benefits related of the consumption of ordinary foods, conventional healthy foods and functional foods, also known as futuristic foods. Traditionally, the healthiness of food has been associated with nutritional factors such as fat, fibers, salt and vitamins (Urala et al, 2003), and the core of the health related information targeted towards consumers composed of conventional 'healthy' are typically presented as types of foods contributing to a healthy diet, e.g. low-fat products, high-fiber products, or vegetables without emphasizing the single role of any products (Urala et al, 2004). There are trust related issues associated with the sources of the health related information. Clearly, respondents display more trust in authorities than food manufacturers and retailers but those who most trusted the authorities also most trust manufacturers (Urala et al, 2003). The consumers used in the sample composed of Finnish persons. In the UK, food related health issue that was channeled through the food industry, which actively develops new products, is one of the distrusted sources (Frewer et al., 1996; 2003). We believe that health information, regardless of the source, contributes to the *optimistic bias* and the *ego-centric and fatalistic belief systems* which consumers may possess. The optimistic bias occurs when people perceive that they are at less risk than other people from a particular hazard; it has been found for many food related health related hazards, including food hazards and nutrition related problems (Frewer et al, 2003). Furthermore, it prompts this group of people to be less concerned about their health when compared to individuals more prone to health-related hazards. As for the *ego-centric and fatalistic belief systems*, it is the case that this specific group of people fail to realize that the same factors that make them feel that the negative event is likely to happen to them (such as the action they take to prevent harm) may be appropriate for other too; also, these groups of individuals are less concerned about health related issues (ibid). The attitudes developed by consumers towards health and consuming healthy food, whether favorable or unfavorable, are connected to the trust in the information channeled from the governmental health organizations and corporations.

Functional Food is on the other extreme when compared to regular food. This food category is so distant from consumers' perception of food, *to a less extent since its introduction to the market*, that consumers fail to embrace it as enthusiastically as the food industry hoped for; Danish consumers in particular were suspicious of functional foods, which they judged as unnatural and impure (Verbeke, 2004). In addition, Danish consumers tend to perceive functional enrichments as 'unhealthy artificial additives' (Poulsen, 1999; Bech-Larsen et al., 2003). We can understand the perception of functional food, not being natural, which is held by Danish consumers. When conventional foods are fortified with other health ingredient such as omega 3 or plant sterols, it loses that natural touch as a result of the processing and fortification. Consumers' perceptions of the healthiness of the processes and enrichments involved in the production of functional foods may be altered by the use of health claims (Bech-Larsen et al., 2003). The manner in which the information about functional foods is delivered to consumers may be too ambitious; considering that consumers have varying education and various backgrounds; it further contributes to the misperception held by some



consumers. A survey from a Finnish experiment shows that persons with more education generally follow a more healthful diet than persons with less education; plant stanol ester margarine is higher priced than other margarines, thus persons with a higher income can better afford it; the incentive to use plant stanol ester margarine probably has risen as a result of prompting by Finnish health experts (Anttolainen et al., 2001).

Perceptions and attitudes, which are strongly knitted in cultural values, are difficult to change by informative means such as health claims (Frewer et al., 2003), i.e. the effectiveness of health claims depends among other things on the strength of the association between consumers' values and their attitudes to functional foods (Bech-Larsen et al., 2003). The concerns and anxiety of girls and boys are very similar to those of women and men (Grogan, 1999), implying that adults' notions of desirable body shape are transmitted to very young adolescents; the method of transmission is likely to be through a variety of socialization mechanisms, including the family, school and the mass media (Beardsworth et al., 2004). Clearly, culture and social constructs influence individuals' attitudes when judging health information, sourced from government and companies. Also, these constructs from a critical age, first (and significantly) influence the ideal bodies shape that an individual seeks. En route to attain the ideal body shape, individuals have to make sacrifices in relation to their choice of food, exercise routine and health as a whole. Some examples of the food choices that individuals would consult are: high fiber foods, fruits and vegetables diets, low fat milk, low fat chips and soda with zero sugar. We believe that when individuals put their body shape as the end result, the means to attain the end result is not always the healthiest. Furthermore, the social and cultural constructs take precedence in this situation.

### ***2.3.3.2 Lifestyle***

The Swedish Health Summit (2003) conducted a study on the five types of lifestyles in relation to health. The types of lifestyles were disciples, managers, investors, strugglers, healers and unmotivated. According to the study, the Disciples accounted for 2% of the Swedish consumers; they were very keen on eating the right food, and found it almost compulsory to select the healthy products. On their personal scales, health is rated higher than comfort and taste; also they are often very up to date with information about food and nutrition. The Managers were the largest group accounting for 57% of the Swedish consumers. This group sought to see the result from the consuming of health products. Less than half the consumers in this group usually chose healthy products just because, it is more important that it tastes good. Even comfort was more important than health. As for the Investors, they accounted for 11% of the Swedish population; they believe that the food you eat today will have a bearing on your health both today and tomorrow, as in the future. They would usually select healthy food because they like eating healthy, moreover, they selected low fat and long low energy content as well as products that are good for the heart, and losing is not the motive behind healthy eating. The healers account for the fourth group which accounts for only 1% of the Swedish consumers. Their motives for eating healthier are often doctor's recommendation to eat healthier. Due to this they are often willing to sacrifice comfort and taste in order to eat healthy. The fifth group are the strugglers accounting for 4% of the consumers in Sweden. It is challenging for them to improve their eating habits; they are aware that they should change from unhealthy eating to healthier ones. The majority of them have a fixation on some kind of diet, and two thirds believe they are overweight. These strugglers find that luck and good genes have a greater influence on being healthy than eating healthy. They are very perceptive to "loose-weight-fast" products but are tired of experts' advice. The unmotivated group is the second largest with 26 % of the Swedish consumers.

They are very negative with regard to health and good; basically, they do not care about what they eat and taste is a critical indicator for selecting food (Swedish Health Summit, 2003).

### **2.3.4 Behaviour**

*Consumer knowledge has an important role in explicating consumer behaviours, particularly with regard to information search and information processing (Park et al., 1994 cited in Klerck et al., 2007).*

Research indicates that food products have been regarded as low-involvement purchases that require only limited decision making and for which risk perceptions have no explanatory power unless they exceed a certain threshold (Dowling et al., 1994, Blackwell et al., 2001 cited in Klerck & Sweeney, 2007). We believe that as foods moves further away from the natural spectrum into the fortified spectrum, involvement level increases thus forcing consumers to make more informed choices. En route to making informed choices, consumers need to possess knowledge about products before them. Information for validating choices is channeled from private bodies, food companies, and/or public bodies and health association. Regarding functional food choices, consumers are confronted with physical risk “potential long-term risks to my family, myself and others”, and performance risk “worry about the product not tasting as good as it should” (Klerck et al., 2007). Consumers have two knowledge reservoirs at their access for negating the risk associated to consuming functional foods, objective and subjective knowledge. The latter refers to a person’s perception of the amount of information about a product class stored in his or her memory (Brucks, 1985; Flynn et al., 1999; Park et al., 1994 cited in Klerck et al., 2007), and objective knowledge, which pertains to the actual amount of accurate information stored in his or her memory (Brucks, 1985; Park et al., 1994 cited in Klerck et al., 2007). Risk perception can induce risk-reducing behaviour, such as information seeking or reduced consumption of an offending product (Yeung and Yee, 2003 cited in Klerck et al., 2007).

Consumers have a tendency to becon on their subjective knowledge, which they largely gained through controversial and biased media reports (Falk et al., 2002; Hoban, 2002 cited in Klerck et al., 2007), increasing their risk perceptions, when confronted with unfamiliar products, those in the fortified spectrum. Therefore, proper education and from trusted sourced, public bodies, will coerce consumers to utilize their objective knowledge thus allowing them to make informed choices when purchasing fortified foods.

The knowledge gap about consumers in the health food industry is most evident with regards to behavioural segmentation. Within the area of psychographics, demographics and geographic segmentation, extensive research has been conducted. However, we found it most challenging to find former studies that provided information about purchase loyalty and brand loyalty. This is one of missing fragments for building the profile of healthy consumers.

## 2.4 Analytical framework

Depicting from theoretical presentation of segmentation and the area of health and functional food, the analytical framework will be from the segmentation process of demographic, geographic, psychographic and behavioural parts. We will apply both the inductive and grounded theory to the research paper.

Figure 2: Pictorial Presentation of Research Area (Consulted)

	<b>Regular Food</b>	<b>Green Keyhole</b>	<b>Functional Food</b>
<b>Demographics</b>	<b>*X</b>	<b>X</b>	<b>X</b>
<b>Psychographics</b>	<b>*X</b>	<b>X</b>	<b>X</b>
<b>Geographic</b>	<b>*X</b>	<b>0</b>	<b>0</b>
<b>Behavioural</b>	<b>*X</b>	<b>0</b>	<b>0</b>

- X -Available research in these food areas
- 0 -Very Limited or no research in these areas.
- \* -Almost all consumers eat regular food.

The list of research questions from previous sections to fill our analytical framework are as follows:

- 1) Can the consumer be distinguished in terms by demographics? And if so, of what terms?
- 2) Can the consumer be distinguished in terms by geographics? And if so, of what terms?
- 3) Can the consumer be distinguished in terms by behaviour? And if so, of what terms?
- 4) Can the consumer be distinguished by psychographics? And if so, of what terms?

### 3. Methodology

---

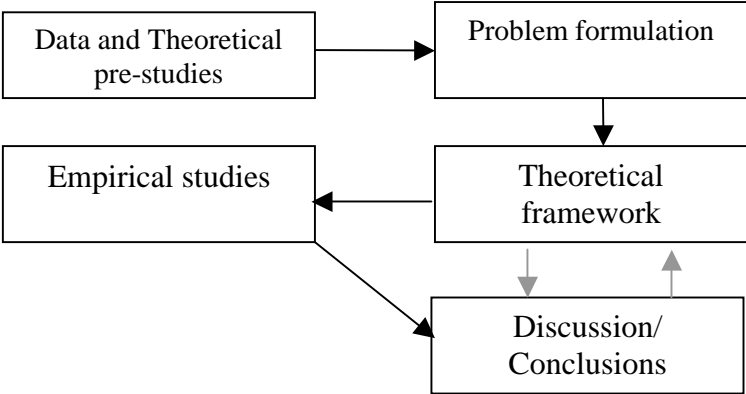
*In this chapter the methodology of the thesis will be presented. At first, the research design is presented followed by the research strategy. Afterwards, the research method together with the research limitations used in this thesis. And finally, a detailed description on how the data was collected as well as a discussion on the validity and reliability is given.*

---

#### 3.1 Research design

The study began with receiving the data from GfK in Lund, a marketing intelligence company, about actual purchases of Swedish households. Since the knowledge is relatively new in this area, previous studies had to be examined in order to gain an understanding of its nature. A research purpose could now be created which was intertwined with both the data and the aforementioned theoretical framework. The choice of a descriptive case study was made because we wanted to “portray an accurate profile of persons, events or situations” (Robson, 2002:59 cited in Saunders, 2003) and study a particular phenomenon within its real life (Robson, 2002 cited in Saunders 2003). In other words, we wanted to create a profile of consumers in different food segments today. Because of this purpose, a simple, well-constructed case study was preferred. In the last step, we connected the results from our tested data to our theoretical framework, and formed the base for our discussions and conclusions. The discussion and the conclusions were made out of the chosen brands and products in the data collection, as well as the characteristics of the consumer types. The approach was the following:

*Figure 3: Methodological approach*



### **3.2 Research strategy**

When trying to connect the theory to research it is very important to examine the theory's function (Bryman & Bell, 2003). There are two ways to approach theory. A deductive approach use hypotheses that are built on already existing theories in order to create an understanding of the problem; also, the aim is to be directed at proving the hypotheses. When a researcher uses an inductive approach, the data is collected to build the theory (Bryman & Bell, 2003).

It was no simple task to select either inductive or deductive theory. However, we found that the research had more of an inductive stance since we were starting with data from GfK. With this stance, we did not recognize the findings/observations about healthy consumers in terms attitudes, demographics and such, as theories. These findings/observations are fragmented parts of information that will contribute to the building of a theory; more so, when a theory is constructed it will provide explanation the observed regularities as stated by Bryman et al., (2003). Inductive researchers often use grounded theory approach to the analysis of data and to the generation of theory; this approach, which was first outlined by Glaser and Strauss (1976 cited in Saunders, 2003), is frequently regarded as especially strong in terms of generating theory out of data, (Bryman & Bell, 2003). Even though grounded-theory is often applied to qualitative research, it has much weight on the substantive and formal framework of our quantitative research paper. As stated throughout the research paper, our goal is to build the profile of the healthy consumer. Past studies have contributed to fragments about the healthy consumers. In the process of building the profile, we will be contributing to the segmentation fragments necessary for building a theory of the healthy consumers. On the grounds that we are contributing to the established substantive framework for the healthy consumer, we believe that we are fulfilling one of part of the criteria for grounded theory. The process of data collection is controlled by the emerging theory, substantive and formal as stated by Bryman & Bell, (2003).

Furthermore, when deciding upon the strategy, it is not the label that is attached to certain strategies, but more what is appropriate to our research purpose and question. These are methods that can be used for our purpose:

- Experiment
- Quasi-experiment
- Longitudinal
- Cross-sectional (Bryman & Bell, 2003)

All of these designs have their benefits and drawbacks, which we do not have the intention to present here. What is common for the first three is that they cover a longer time period with multiple observations. A cross-sectional design was chosen but was however influenced by longitudinal since the data from GfK was collected during the year of 2006. However, the study is more of a cross-sectional character since the time limited our possibilities to consider the longitudinal part in the result and discussion, also by the fact that we wanted to profile the customers of today and not see if there has been a change over a period of time (Saunders, 2003). The longitudinal study often uses a panel or cohort. Data may be collected from different types of cases within a panel study framework : individuals, organisations, and so on (Bryman & Bell, 2003). In our case, GfK provided panel information where they randomly selected a sample on at least two cases (often more) and occasions.

### **3.3 Research Approach**

Since the nature of the purpose is to find relationships and segment them, a quantitative approach will be used. The approach strives to measure the reality in numbers, and the most usual method to do this kind of approach is with different kinds of surveys, with already given answering alternatives which later are transformed to numbers. In this way, the material can later be compared and evaluated. The quantitative approach is much more linear than the qualitative approach, since it is much more difficult to go back and change when the survey is completed (Malthora & Birks, 2003). The quantitative approach was also preferred since the data is, or was to be, converted to numbers which would help us to compare the three consumption groups and find variations within these groups. We do not have the intention to do a very thorough analysis of the reasons behind our results which is also why a quantitative approach is to prefer (Bryman & Bell, 2003). We got the opportunity to receive all the empirical data from a market research company. This would not only guarantee us a huge amount of empirical data but also raise the validity of the research.

There are different reasons why the quantitative approach seeks to present different measurements for the investigated object. Measurements and numbers let the researchers present even smaller differences between groups and not only the extremes. The numbers are also an excellent way to measure differences; like a benchmark/gauge (Bryman & Bell, 2003). This will finally result in a possibility to discern relationships and to do comparisons that would not have been possible otherwise (Malthora & Birks, 2003)

Quantitative studies are often chosen when the researchers are interested in four areas:

- To find evidence that a relationship between different measurements exists, to prove that some of the measured variables are independent variables and that some dependent variables are bound.
- To produce measurements that can be analyzed by the researcher and be used to prove the investigated hypothesis.
- To be able to draw general and theoretical conclusions.
- To create a recreational possibility, a research shall to the utmost be possible to recreate by another researcher and hopefully provide the same result. (Bryman & Bell, 2003)

Furthermore, since a segmentation of consumers is in focus, it is a natural choice to do a quantitative study and with the use of numbers the reliability and validity of the results can statistically be measured. The reliability refers to how reliable the empirical data is, and the validity refers to if it is really the right things that have been measured. These terms will later be discussed in the validity.

The critique which can be aimed towards a quantitative approach is that it requires the researcher to be able to concretise their problem formulation and convert it to the right questions and right answers. This requires a lot from the researcher, especially a great knowledge of the investigated area. Except this, it is pointed out that is very difficult to convert individuals' cognitive opinions into numbers without losing the person behind the numbers. The use of numbers can also give the impression of an accuracy and exactness which might not be the case. Besides, it is also pointed out that researchers with a quantitative approach are too distanced, which results in some of the study's support of reality disappearing (Bryman & Bell, 2003).

### **3.4 Case study**

We have chosen to do a case study for the reason that we need to look in-depth at a smaller number of segments that have been collected over a shorter period of time. This design is also aimed to understand events and dynamics in complex situations (Easterby-Smith et al, 2002). In every case study the researcher must make a strategic choice on how long one must follow the case to create a satisfying picture of its complexity. On one hand, it is impossible to describe and understand all conceivable aspects of the case. On the other hand, the researcher must understand enough to portray the case as trustworthy as possible (Yin, 1989). Further, it can be argued that a case study should be used when we are trying to answer a “why”, “what” and “how” question (Yin, 2003). However, the questions “why”, “what” and “how” tend to be more concerned about the survey strategy, which we did not have to consider to some extent. It is also argued that a case study should be used when the researcher has little or no control over the events and when the focus is on a current phenomenon within some real-life context (ibid). Since our purpose is to investigate the differences between functional food, healthy food and regular food and to create a profile of these customers, it is argued that the data was built on a “why” question, and thesis is geared towards finding “who” thus the case study approach seemed to be appropriate. However, Saunders (2003) note that one should be aware of the “unscientific feel” it might have and that it provides little support for generalisation.

The aim with this case study was not to generalise the results to populations, instead we wanted to fill a knowledge gap and to contribute to existing studies for the building of a theory. The data from GfK was chosen due to the connection our university faculty has with GfK. Furthermore, the choice of the GfK data was chosen due to its extensiveness, and the reliability of the company’s studies. The data was further not specified to certain customers, households or stores where the purchases have been made. This is especially important when we are trying to create a general result. Also, the data from Lund School of Economics and Management was about Swedish consumers’ purchasing behaviour. This data was chosen since we wanted to get some insight into how these food segments’ brands are positioned on the market today which we believe our main study’s data did not reflect. The study was not aimed to provide a profile of the customers based on demographic and socioeconomic variables since it is our belief that the brands’ different intended target segments are not so differentiated. Nonetheless, a thorough analysis of demographic and socioeconomic variables was done in order not to miss out on any important differentiations. Therefore, no significant results were expected.

#### **3.4.1 Limitations**

To limit our case study, we chose to look at cooking fat since; this is a very big energy source which has a lot of influence on cholesterol and cardiovascular diseases. The total fat intake is today above the recommended, (www.sjv.se) even though there is a widespread phobia of fat amongst people (Bauer, 2005). The use of vegetable oils or fluid margarines in cooking at home has increased during the 90s and most of the participants (76%) use iodised salt or sodium-reduced mineral salt (13%) for cooking at home, (www.sjv.se) Considering that margarine is such a widely used product, and is present in all three food categories being examined, it should provide a good representation for profiling the consumer groups. The three brands were selected on the grounds of, having margarine in their product assortment and data availability; also, the researchers believe that these brands have a high brand awareness and usage in the Swedish market. Within these three brands margarine was chosen to represent the different food categories, Becel pro-active for Functional food, Lätta Mini for Nyckelhålsmärkt and Bregott for regular food.

### **3.5 Data Collection**

To be able to identify different preferences and loyalty towards brands in different consumer groups, we first studied various literature in order to see what experts and researchers consider important in this matter. The research of this study was introduced by collecting secondary data, i.e. data that have been collected and compiled in other research. As well for our literature, our empirical data is also secondary since it is collected by a marketing research company (GfK). The reason for choosing this data is due to the impossible nature of conducting such a comprehensive survey due to time and economic limitation. Further, this data was received from a company and individuals with a great experience of conducting surveys which would raise our validity and reliability. Data was received from two different sources. The first data was obtained by Johan Anselmsson and Niklas Persson from a survey called "Sweden's strongest brand 2007". It consisted of approximately 2500 respondents who were asked of total 70 product categories. The population was divided into five groups of approximately 500 who were asked of their attitudes towards 12 separate product categories. The questions asked were focused on demographic, socioeconomic and some psychological variables such as health, price and health. The questions were not asked about specific brands and products since the risk of altering the result.

The second data for our main study was obtained by GfK from their consumer panel with 21087 household respondents about their consumption behaviour and attitudes towards different factors concerning food and health. Of the three specific products chosen for our study, there were 5900 respondents. The households are randomly chosen which is intended to reflect Sweden as a small version. The data is basically collected by a diary of purchase, whereby the households would fill in their purchases regularly. The data which is collected by GfK is processed confidentially, securing the households' anonymity ([www.gfksverige.com](http://www.gfksverige.com)).

#### **3.5.1 Data Collection Company**

GfK Sweden (Growth from Knowledge) is Sweden's leading full-service institute and a strategic part of GfK AG, one of the world's biggest market and Research Company. GfK Sweden offers a wide range of research methods with connections all over the world. In Sweden they are situated in Lund and Stockholm. It was founded in 1967 and has 130 full-time workers and over 700 interviewers. The company has over 1000 customers in Sweden, ranging from small companies to the biggest companies. On a global scale, GfK Group has over 10 000 customers. GfK Sweden's household panel includes 5000 national households with varying shopping habits. They report their purchases of rare sale products with regular intervals on an Internet based diary, i.e. clothes, toys etc. GfK has also a so called Customer Scan where the respondents scan their everyday products with a little scanner. To improve and ensure respondent validity and reliability, GfK uses a bonus system which allows them to collect points from how much time they spend on collecting information. With the points, respondents can later order products like DVD-players etc. There are currently around 3000 Customer Scan respondents in Sweden, ([www.gfksverige.com](http://www.gfksverige.com)).



### **3.6 Validity, Reliability, Generalisability**

An evaluation of the thesis trustworthiness is necessary to see if the yielded results are correct. In the evaluation, there are a couple of criterions that must be fulfilled. These are reliability and validity. Generalisability is also a very important aspect in quantitative studies, i.e. if the result is applicable to different populations (Bryman et al., 2000).

#### **3.6.1 Reliability**

For the research approach, the test, measurement tool and the measure itself have to be usable and appropriate, it is required that these are valid and reliable. If these requirements are not fulfilled the results are of no scientific value (Saunders, 2003). Reliability can be denominated by the usability and reliability of the measurement tool and the measurement (ibid). Bryman et al. (2000) state that the measurement that has been done should yield the same result the second time, if similar conditions prevails.

We believe that the reliability of this study is high since the data collection was done by a leading market and research company. Such an extensive survey was impossible for us to undertake due to economical and time limitations. Since GfK is one of the market leaders within its field and is the biggest in Sweden, no other company could provide such an extensive data and therefore, we believe if someone else carried out the same research it would yield similar results. However, consumption behaviour changes rapidly these days which makes the data for specific products perishable. But the general conclusions and the main drawings for fortified food will probably be valid.

#### **3.6.2 Validity**

Validity is often considered as the most important criterion to determine the trustworthiness of a study. This criterion shows how trustworthy the conclusions are, and if they have any connection. Validity, in other words, shows if the intended investigated object actually is investigated (Bryman et al., 2000). The data used is representative for our study since they describe consumers' preferences, general attitudes and demographic variables and it reflects the Swedish households. The data is collected and received by a marketing and research company which controls and approves it. We believe that there is no other way that we could collect more trustworthy data, and therefore it is good for analysing and draw conclusions from.

##### **3.6.2.1 Secondary data**

Secondary data that fails to provide information that is needed to answer the research questions and purposes will result in invalid answers (Kervin, 1999). Often when using secondary survey data, the researcher will experience that the measures do not fit exactly to those answers needed (Jacob, 1994). Therefore, the researchers need to be cautious before accepting such data at face value (Denscombe, 1998). There is no clear solution to this but there are two rules that should be fulfilled. Firstly, the data should be able to answer the research questions. Secondly, when the unwanted data has been excluded there must be sufficient data left for analysis (Hakim, 2000). Another criteria that Kervin (1999) argues for is the cost of assessing the data compared to the benefits it will yield.

Both data from our studies were, according to us, separately not sufficient to create a reliable answer to our research questions and purpose. For this reason, we decided to conduct two

studies. Much time was spent on converting the data into information that could be used in the empirical results and analysis. The data was obtained for free; moreover, it was extensive and reliable thus we were willing to use it and the necessary conversions.

### **3.6.3 Generalisability**

In quantitative studies, there is often a wish to be able to generalize the result to other situation besides the studied one. This can often be very difficult if there is no possibility to draw conclusions from anything else than the studied population. It is important to be careful with generalising the result, because the investigated persons and situations can differ from other objects that are not investigated (Bryman et al, 2000). The purpose of our study was to gain an understanding of what characterises customers that buy functional food, Nyckelhålmärkt and regular food. The aim was not to generalise the result to other populations besides Sweden. The generalisations constructed will highlight Swedish households buying these specific products which were investigated. However, we want to be careful with our generalisation because there can be big differences among different households, i.e. GfK's survey will not include every type of household in Sweden thus we are unable to analyse them, and make necessary generalisations.

## 4. Results

---

*In this section we will provide our statistical results. Our results are presented through two data sources. The first study has used the data provided by LIFS study about Sweden's strongest brand, conducted by Associate professor Johan Anselmsson, and PhD. Niklas Persson. The focus of where the measurement of favourability in terms of brand will be conducted. For our second study, GfK has provided household information of purchase of Becel pro-active, Bregott and Lätta mini. The results will be divided into four sections, describing the demographic, geographic, psychographic and behavioural characteristics among the households.*

---

### 4.1 Analysis of our first study

#### 4.1.2 Behaviour

Behaviour will be derived from the calculations of attitudinal purchasing loyalty comprising of intended behaviour, measured in terms of how many respondents would prefer to purchase a selected brand among a group margarine brands in Sweden, and likeability in terms of a their attitude towards their preferred brand. Likeability towards the preferred brand was measured on a 9 degree interval scale.

Among the 459 respondents 169 respondents 36,8% would prefer Bregott, 81 respondents 17,6% would prefer Becel and 96 respondents 20,9% would prefer Lätta. In terms of likeability, respondents choosing Bregott tended to be the most positive respondents towards their selected brand, with an average rating of 8,02 compared to 7,79 of respondents of Becel and 7,53 of respondents of Lätta.

*Table 1: Mean value of attitude towards selected brand*

	Brands		
	Becel	Bregott	Lätta
	(A)	(B)	(C)
What is your attitude towards	7,79	8,02	7,53

#### 4.1.3 Summarizing test of Behaviour

Performing an independent samples t-test it could be statistically proven that Bregott customers were more positive towards their brand compared to respondents of Lätta. However, no significant difference could be shown that respondents of Bregott were more positive than respondents of Becel.

*Table 2: Comparisons of likeability among preferred brand*

	Brands		
	Becel	Bregott	Lätta
	(A)	(B)	(C)
What is your attitude towards		C	

## **4.2 Analysis of our second study**

In this study there were 5900 respondents of these three products and 21087 households for the complete survey of favour of margarine product. What should be noted is that these are not unique households, several households could have purchased several products.

The choice for us were Becel pro active which is regarded as functional food product, scientifically proved to lower your cholesterol, Bregott a standard margarine product with 70% fat, and Lätta mini, 28% low fat margarine, green key hole labelled.

Among the 5900 households, Becel pro-active had 369 respondents which is equivalent to 6,3% within these brands. Bregott had 3657 respondents which is equivalent to 17,3%. Lätta Mini had 1874 households which is equivalent to 8,9%.

### **4.2.1 Demographics**

#### **4.2.1.1 Descriptive results**

##### **4.2.1.1.1 Gender**

There is a big difference in the purchases between men then women. Men represent only one fifth of the purchases made. When comparing the products no bigger difference could be discerned. Becel pro-active tend to have a few percentage more female consumers with 81,8% while Bregott and Lätta Mini had 79,7% and 79,9%. Difference among the genders of the choice of brands could not be proved, however, it can be stated that the purchase of margarine products is mostly done by women.

##### **4.2.1.1.2 Age**

Young people up to 24 years of age do not tend to buy any of these three products. Becel pro-active tend to have an older customer segment with most of them between 60 and 70 years of age. They represent 41,7% of the customers while Bregott and Lätta Mini had 25,7% and 19,1%. Consumers over 70 years of age had high preference for Bregott (21,5%) while Becel pro-active and Lätta had 16,3% and 6,8%. Lätta Mini's biggest customer segment was between 40-50 years with 28,6% compared to Becel pro-active (6,6%) and Bregott (5,9%).

##### **4.2.1.1.3 Martial status**

Households purchasing Becel pro-active had a low percentage of 64,20% of respondents living with a partner compared to Bregott, 72,10% and Lätta, 80,70%. The highest amount of singles could be found among Becel pro-active's respondents, 35,80% compared to Bregott, 27,10% and Lätta with only 18,80%.

##### **4.2.1.1.4 Living**

Most of Becel pro-active's consumers 51,8% reported to live in a house, while Lätta Mini had 49,9% and Bregott had 49,1%. 29,5% of Becel pro-active's consumers lived in a tenant-ownership, while 19% of Bregott's and 16,1% of Lätta Mini's customers lived like this. Of those respondents who lived in a hired flat, Lätta Mini had 26% while Becel pro-active and Bregott had 12,7% and 21,9%. Among those who state that they are strongly health conscious, 15,9% live in a house, 15,8% live in a rented house and 15,6% live in tenant-ownership compared to 11,5% of those who live in a rented flat.

#### ***4.2.1.1.5 Members within the household***

Among those people who were only one person in the household, Becel pro-active had 31,2% women and 0,8% men. Compared to Bregott which had 18,4% women and 4,8% men. Lätta mini had 10,7% women and 4,3% men.

Among Becel pro-active's customer base could be found households with one woman, 31,20% and two households members, 38,20% and almost no households purchasing Becel pro-active consisted of more than four family members. The majority, 51,10% of the households purchasing Bregott consisted of households of two family members. Among consumers purchasing Lätta 49,7% households consisted of two members and 16,80% of three family members. Bregott was the only product that reported a fair share of household with over six persons with 1% (23 respondents) while Lätta Mini reported 1 respondent (0,1%) and Becel pro-active had none.

#### ***4.2.1.1.6 Women in the households***

Nearly 80% of all the households had a high percentage of at least one woman within the household. However, Becel pro-active and Lätta mini had a higher percentage of more than one woman within their households being 21,6% of Becel pro-active and 21,3% for Lätta mini compared to 12,9% of Bregott.

#### ***4.2.1.1.7 Number of children under 18 years of age***

Becel pro-active had 81% of the households consisting without children under 18 years of age, this could be compared to Lätta mini, 69,20% and Bregott 77,9%. Lätta mini had thus 31,8% of the households purchasing Lätta mini with at least one child, compared to 19% of Becel pro-active and 22,1% of Lätta mini

#### ***4.2.1.1.8 BMI – group***

Of the households purchasing Becel pro-active only 4,9% were considered to be obese, compared to 24,80% of the respondents purchasing Lätta mini and 11% of the respondents of Bregott. Among the respondents being overweight, 42,30% bought Becel pro-active, 33,6% of Bregott and 33,8% of the households Lätta mini were overweight. Difference could be seen among respondents with a normal classified BMI where Becel pro-active had 48,20% and Lätta mini had 29,70%.

#### ***4.2.1.1.9 Education***

The majority, 53,80% of the households purchasing Becel pro-active had a university degree, which was more than twice of the respondents of Bregott and Lätta, 22,4% and 23,3% respectively. The majority, 53,80% of the households purchasing Lätta had finished grade school. Bregott had the highest amount of household respondents, 39%, finishing High School

#### ***4.2.1.1.10 Occupation***

Bregott reported that 40% of their respondents were no one working in their household compared with Becel pro-active with 37,4% and Lätta Mini with 24,3%. 43% of Lätta minis respondents reported that they had two persons working while Bregott had 29,3% and Becel pro-active had 25,5%. When it came to three working people in the household, Becel pro-active reported 10,6% while Lätta Mini and Bregott had 2,1% and 1,7%.

#### 4.2.1.1.11 Working household members

The highest difference among the number of working family members was among Becel pro-active which had nearly 10,6% of the respondents consisting of three employed family members. Lätta mini had 43% of the households having two working family members.

#### 4.2.1.1.12 Household Income

Lätta Mini's biggest customer segment according to their income was between 300,000 and 500.000SEK with 25.1% within the brand while Bregott had 17,8% and Becel pro-active 14,9%. Becel pro-active had 12,5% reporting an income over 600.000 SEK a year, compared to Bregott (8,7%) and Lätta Mini (6,8%). Between the income level of 500.000 and 600.000 SEK, Lätta Mini had 12,8% of its respondents while Bregott had 9,4% and Becel pro-active 6,8%. An income of 180.000 to 200.000 SEK represented a very big share of the brands' respondent compared to its small interval. Becel pro-active and Bregott had 3,3% and Lätta Mini 3,4%.

#### 4.2.1.2 Summarizing test of demographics

For the variable gender no statistical significant difference could be seen among men and women among the products. However, it is to be noted difference among men and women tend to differ in general. Regarding age, it was statistically significant that Becel pro-active has a higher amount of older respondents. No difference could be seen among Bregott and Lätta mini. Martial status tended to differ among the products. The number of family members only differs for Lätta mini compared to Bregott. The results showed it was statistically significant that Becel pro-active and Lätta mini differs in terms of number of women within the household. The number of children under 18 years of age proved to among Bregott and Lätta mini compared to Becel pro-active and Lätta mini compared to Bregott. Difference in terms of education, occupation and living could be statistically proven. Further, the amount of working household members differs for Becel pro-active compared to Bregott and Lätta. Household income for households purchasing Bregott differed compared to households of Lätta mini.

Table 3: Summary of test statistics among differences of demographic variables

Variable	Difference among products		
	<i>Becel Pro</i> (A)	<i>Bregott</i> (B)	<i>Lätta Mini</i> (C)
Gender	.	.	.
Age	.	A	A B
Martial Status	*	*	*
Members within household	.	.	B
Women in in household	B	.	B
Children under 18 year	.	A	A B
BMI-group	*	*	*

Table 4: Summary of test statistics among differences of socioeconomic variables

Variable	Difference among products		
	<i>Becel Pro</i> (A)	<i>Bregott</i> (B)	<i>Lätta Mini</i> (C)
Education	*	*	*
Occupation	*	*	*
Living	*	*	*
Workers in household	B C	.	.
Household income	.	C	.

## 4.2.2 Geographics

When looking at geographic differences in terms of difference of country specific differences in Sweden in terms of country region and city size. Looking at specific regions within Sweden we divided Norrland as North Sweden, Svealand as Central Sweden, and Götaland as South Sweden.

### 4.2.2.1 Results of geographics

#### 4.2.2.1.2 Region and city size

As it could be seen is that Becel pro-active has higher rate of consumers living in south of Sweden followed by Central Sweden and last North of Sweden. The overall trend was that South of Sweden had the most of the respondents overall, followed by Central Sweden and North Sweden.

Looking at City size the majority of the respondents in general tended to live within cities of 20 000 to 99 999 citizens. A notice is that 13,04% of the respondents of Bregott lived in Urban cities, (Malmoe, Gothenburg and Stockholm), compared to 8,13% for Becel pro-active and 5,93% of Lätta mini.

Table 5: Geographic description of household in terms of region and city size

Variable		<u>Becel Pro</u>	<u>Bregott</u>	<u>Lätta Mini</u>
Country region	North Sweden / Norrland	14,90%	16,43%	13,51%
	Central Sweden / Svealand	36,85%	40,69%	34,38%
	South Sweden / Götaland	48,24%	42,88%	52,11%
City or metro size	0 - 4.999 citizens	0,27%	1,31%	2,46%
	5 000 - 9 999 citizens	3,52%	1,31%	3,95%
	10 000 – 19 999 citizens	14,91%	14,82%	22,48%
	20 000 – 49 999 citizens	26,29%	30,05%	29,15%
	50 000 – 99 999 citizens	29,54%	26,03%	21,84%
	100 000 - 199 999 citizens	17,34%	7,88%	14,20%
	Urban cities	8,13%	13,04%	5,93%

#### 4.2.2.2 Summarizing test of geographics

Highlighting differences and verifying the results a summary of the variables through Chi-square is conducted. From the results it can be statistically shown that purchases of the products differ across regions as well as across terms of the size of cities.

Table 6: Summary of test statistics of geographic variables

Variable	Difference among choice of product		
	Becel pro	Bregott	Lätta mini
	(A)	(B)	(C)
Country region	*	*	*
City size	*	*	*

### 4.2.3 Psychographics

This section will take into consideration of psychographic variables regarding attitudes. The variables measured are the price and health consciousness. The test are carried out through chi-square analysis and t-test independent sampling.

#### 4.2.3.1 Results of psychographic

##### 4.2.3.1.1 Price consciousness

Studying household's price consciousness regarding whether they tended to purchase branded products because of reassurance of quality or whether the brand is of no importance and quality is equal. The majority 52,90% of the respondents of Lätta mini preferred to favour the specific brand. Becel pro-active and Bregott had somewhat similar results of brand importance, 34,69% and 37,22% respectively, compared to no importance of brand, 65,31% and 62,78% respectively.

The other question of price consciousness was if the households were looking for special discounts or whether it is too tiresome, Lätta had 73,64% of the respondents looking for special discounts, followed by Becel pro-active, 62,88% and last Bregott, 54,87%.

The last question of price consciousness was whether the households would favour low priced stores or whether price was irrelevant and if most important was the stores offering and location, Becel proactive had 69,91% of the respondents favouring low prices stores, followed by Bregott, 66,52%. Lätta mini had almost equally amount of households favouring low priced stores (50,53%) versus high quality stores (49,41%).

Table 7: Cross table of price consciousness among households

Variable	Answer	Becel Pro	Bregott	Lätta Mini
Price consciousness 1	Brand quality instead of price	34,69%	37,22%	52,90%
	No importance of brand and similar quality	65,31%	62,78%	47,07%
Price consciousness 2	Price and offer oriented	62,88%	54,87%	73,64%
	To tiresome to look for offers	37,13%	45,06%	26,30%
Price consciousness 3	Low price stores	69,91%	66,52%	50,53%
	Stores with quality goods and location	30,08%	33,47%	49,41%

##### 4.2.3.1.2 Health and spending

Households purchasing Becel pro-active would have an average score of 3,97 whether the households tended to purchase as healthy products as possible. The mean value for Bregott was 3,922 and 3,41 for households of Lätta mini. Whether the households tend to favour extra spending once in a while, the rating were quite similar even though Bregott had a slightly higher rating of 4,17 compared to 4,13 of Becel pro-active and 4,11 of Lätta mini households.

Finally, regarding the purchase of green key hole labelled products, the rating was quite similar whereas the households tended to agree that they purchase green key hole labelled products.



*Table 8: Summary of average rate of health and spending*

Questions for households	Becel pro Mean	Bregott Mean	Lätta mini Mean
Tends to eat healthy	3,97	3,92	3,71
Tends to spend once in a while	4,13	4,17	4,11
Purchase green key hole labeled products	3,24	3,10	3,41

#### **4.2.3.2 Summarizing test of demographics**

From the results it can be statistically shown that price consciousness among the choice of product tend to differ. Households purchasing Furthermore, households purchasing Bregott tends to differ in spending compared to Lätta mini.

Regarding health consciousness among the households, households purchasing Lätta mini tended to differ compared to Becel pro-active and Bregott. As for the green key hole label, it was statistically significant that households purchasing Lätta mini did not purchase as healthy products as possible. No difference could be shown amongst Becel pro-active and Bregott.

*Table 9: Summary of health and test*

Summary of questions	Becel Pro (A)	Bregott (B)	Lätta Mini (C)
Price consciousness 1	*	*	*
Price consciousness 2	*	*	*
Price consciousness 3	*	*	*
My household tends to eat healthy	B		A B
My household tends to spend once in a while		C	
I purchase green key hole labelled products	B		A B

## 4.2.4 Behaviour

### 4.2.4.1 Results of purchase loyalty

When calculating the purchase loyalty in terms of how inclined households are to purchase one product among the three selected Becel pro-active, Bregott and Lätta mini. The results were derived by accumulated loyalty percentage for selected products among the households purchasing and dividing the total loyalty percentage by the number of households.

Of total purchases of 5900 margarine products purchased, on an aggregated level, among 947 households, Becel pro-active's 91 households accounted for 369 products 1,54%, Lätta mini had 305 households which accounted for 1874 product purchases 31,76% and Bregott's 551 households accounted for 3657 products 61,98%. Households choosing Becel proactive purchased on average 4 products and the median purchase of 2 products. Households choosing Bregott purchased on average 7 products and the median purchase of 3 products. Households choosing Lätta purchased on average 6 products and the median purchase of 3 products.

From the table below, households purchasing Becel pro-active 76,44% loyal, meaning that on average the Becel pro-active household would purchase Becel pro-active roughly 75% of the time, compared to Bregott and Lätta mini where the household would purchase it more than 90% of the time.

Table 10: Comparison of purchase loyalty

	Households		
	Becel pro-active	Bregott	Lätta mini
	Mean	Mean	Mean
Purchase loyalty %	76,44	93,28	91,63

### 4.2.4.2 Summarizing test of Behaviour

When making comparisons among the households, it could be seen through independent t-test from the table below that households purchasing Becel pro-active differ in terms of purchase loyalty compared to Bregott and Lätta mini.

Table 11: Comparison of purchase loyalty

	Households		
	Becel pro-active	Bregott	Lätta mini
	(A)	(B)	(C)
Purchase loyalty		A	A

#### **4.2.4 Discriminant analysis**

Discriminant analysis can be described as a descriptive technique attempting to establish whether a set of variables can be used to distinguish between two or more groups, as to see which variables, independent variables, discriminate between two or more groups, selected dependent variable, (Malthorta et al., 2003). Through a multiple discriminant analysis the dependent variable will be the choice of brand and the independent variables will be based on demographic, geographic and psychographic variables. The test statistics that are of main importance will be the explained variance the included variables have of included function, Wilk's lambda determining the statistic significance of the functions, the structure matrix defining the correlations between the variables and the selected function. The classification rate shows of how many of the households have been correctly classified within the groups. Malthorta et al., (2003) recommend a minimum of 25% higher classification rate than of random sampling. In our case, the minimum classification rate would be 58% as we discriminate among three household segments.

#### **4.2.4.1 Results of discriminant analysis**

##### **4.2.4.1.1 Demographic variables**

The demographics used for our analytical framework were the presence of children up to 18 years of age, number of working family members, number of female respondents, living, gender, age group, household's total income, household size, martial status, employment and Body Mass Index group. From the results of the discriminant analysis the first function would account for 75% where the function consisting martial status (0,479\*), age group (-0,453\*), education (0,449, BMI group, number of family members being employed, and the number of children up to 18 years of age, whereas household's total income was not considered in the analysis. The second function would explain 25% of the variation with the second function consisting of number of females within the household, household size and gender. Wilk's lambda would prove to be statistically significant. However, looking at the classification rate, only 44,5% of the original grouped cases were correctly classified. Thus, it is not possible to distinguish a segment based on demographic variables.

##### **4.2.4.1.2 Geographic variables**

The geographic variables included for the analytical framework were the region among households belonged to of city or community and the second variable of number of citizens. The first function which was derived account for 100% of the explanation and consisting of region, as it was the only variable considered in the analysis. Wilk's lambda proved to be statistically significant. However, the classification rate was 50,6% of original grouped cases correctly classified and thus it is not possible to distinguish separate segments based on geographic variables.

##### **4.2.4.1.3 Psychographic variables**

For the use of psychographic variables within the analytical framework three questions regarding price consciousness, one health specific question regarding the purchase of green key hole labelled products and two questions of the households whether they tend to purchase as healthy products as possible and whether the household try to put an additional spending on occasional times.

For the questions referring to price consciousness, all the three questions were used in the first function, accounting for 95,4% of the explained variation and Wilk's lambda being statistically significant (0,000). Looking at the classification 49,2% of the original groups were correctly classified. Thus, it is not possible to distinguish a segment regarding to price consciousness.

In terms of whether the segments could be separated in terms of health, the first function consisted of the variable of households purchasing products with the green keyhole symbol, which accounted for 100% for the explained variance of function one where Wilk's lambda proved to be statistically significant, (0,000) and 55,8% of the original grouped cases could be correctly classified.

For the household specific questions of health and spending whether they tend to purchase as healthy products as possible and if they tended to put extra spending on certain occasions, only whether the household tended to carry out certain extra spending on, was taken into consideration into the first function, accounting for 100% of the explained variation. Wilk's lambda was proved to be statistically significant (0,000). However, only 17,3% of the original grouped cases were correctly classified.

#### ***4.2.4.1 Summary of discriminant analysis***

Looking at the results from the discriminant analysis no statistically significant distinguishing demographic, geographic, psychographic segments could be found. Some variables such as health relating to the purchase of green key hole labelled products, there minimum criteria could almost be met. However, distinguishing the households based on households purchasing as healthy products as possible and sometimes putting on an extra spending was poorly classified.

## 5 Discussion and conclusion

---

*From our segmentation we will on a theoretical level discuss what differentiates the food segments from each other divided on demographics, geography, psychographics and loyalty and try to link it to previous research. We further intend to provide a “typical” customer of functional food, Nyckelhålsmärkt and regular food, and describe the most usual characters from the used variables. Concluding with our contributions, we will give our opinions how these contributions can be related on a theoretical level as well to be used on a managerial level.*

---

### 5.1 Demographics

#### 5.1.1 Gender

A clear difference exists in gender regarding health. Women do most of the purchases of functional foods already stated by Childs (1997) and when looking at households of only one person, men in these households hardly buy functional food compared to every third woman. This might be explained by many women, as described in the theoretical framework, to be more concerned about their health than men (Beardsworth et al., 2002). For our results no separation based on gender between the brands could be noticed, but gender clearly has an influence on margarine purchase decisions as most respondents tended to be female, inferring that purchasing of food products can be regarded as a feminine activity.

We therefore believe that healthiness is associated to social relations and the affect that women and children might have on men. As Svedberg (2006) argues; the healthier perception we have, the healthier we are. Therefore, this can be an explanation as to why almost half of the male population is overweight and only third of the women. Why women eat more healthy might be hard to explain, but as indicated in the results, women have a stronger purchase interest since they often has the primary responsible for the food (Childs et al., 1997; Gilbert, 1997; Verbeke, 2004). A more controversial argumentation about this is that there is widespread agreement that messages from magazines and television emphasizing the importance of extremely slender, and for most women unhealthy and unobtainable, body shapes lead to widespread body dissatisfaction, low self-esteem, and a pathological pursuit of the thin body ideal and therefore women tend to eat more healthy pr (e. g., Brumberg, 1997; Freedman, 1986; Gilbert et al., 1996; Vaughan et al., 2003; Wolf, 1991 cited in Shelly 2007).

#### 5.1.2 Age

As shown in previous theory, the typical functional food customer is middle aged (IFIC, 2000, 2005; Poulsen, 1999). However, it seems that up to 40 years of age there is no direct interest in functional food. There are differences in age compared to gender also where middle-aged women tend to stand for the purchases of the two more healthy brands of Becel and Lätta. However, our study showed that very few old people (70+) bought Lätta and Becel which might confirm the statement by Nirva et al. (2007) that elderly were more pessimistic to more healthy innovations. To be noticed was that natural margarine Bregott had 21,5% of the household respondents being elder, 70 years of age and older. A possible explanation that

consumers would not tend to choose Becel pro-active and functional food in general is due to it being a relatively new concept, thus making it harder for the consumer to adapt to it

To draw further conclusions about age differences, data about health status would be appropriate and elder's attitude towards health. Then, further connections about the health status and functional-, healthy food could be drawn. Data about the persons relationship would be interesting to support the statement that newly widowed people, most of whom are women, are less likely to say they enjoy mealtimes, less likely to report good appetites, and less likely to report good eating behaviours than their married counterparts (*Journals of Gerontology, 1993*).

### **5.1.3 Martial status**

Studies of Anttoilainen (2001) of users and non-users of functional food margarine Benecol®, found no particular difference among respondents being married or single. From our results we could find that there was a significant difference in terms of martial status, where roughly one third of the households purchasing Becel pro-active were single households. No difference could be noticed among low fat margarine and regular margarine. Due to lack of specific information about martial status of previous research it is hard to infer any further comparisons.

### **5.1.4 Children under 18 years of age**

Findings by Childs (1997) see parenting triggering a focus on nutrition. Our study did not include attitudes towards health related to parenting. However, relating to the amount of households with number of children less than 18 years of age, households of Becel pro-active mainly consisted of single households and had in general less number of children compared to Bregott and Lätta mini. Furthermore, consumers in a household who bought Functional food do not have as many children as those who bought Lätta mini and Bregott.

### **5.1.5 Education & Household income**

Our results indicate that education and income play a big role in preference of health. A small percentage of those who have only studied nine years of elementary school buy Functional food, while the regular food customers have a very high share of those who only finished grade school. We could see a clear indication that the higher income the healthier one eats. People who have an income 600.000+ SEK tend to buy twice as much Becel pro-active as Lätta Mini's and Bregott's customers, which supports Childs (1998) argument that consumers with a higher education and income tend to buy more healthy food.

Low fat margarine Lätta mini tend to be preferable among those who finished high school and want to eat healthy but really have not taken the step further to buy functional food. Findings by Poulsen (1999) of consumers attitude towards functional food indicate that consumers with lower education can be inclined to purchase products with health benefits. However, our findings could not support this statement based on actual purchase, and nothing indicates that these customers are inclined to purchases functional food.

Discussing high and low income compared to health we could see clear indications that the higher income one receives, the more healthy food is consumed. Where people have an average income of 180.000-200.000 SEK they tend to buy equally much of each product and

3 out of 4 consumers were being partly health conscious, (HealthFocus International, 2003) by trying to choose products that are healthy for them but would let price have priority in front of health. Higher education can result in a higher income which leads to protection against diseases by influencing life-style behaviours, problem-solving abilities, and values (Liberatos, 1988). Moreover, education may facilitate the acquisition of positive social, psychological, and economic skills and assets, and may provide protection against unpleasant influences (Winkleby et al., 1990). Therefore, people with higher education tend to have a healthier lifestyle and are more protected from diseases caused by overweight and unhealthy food. As mentioned people have more focus on price than health and even if a healthy product is chosen, it tend to be the cheapest one (Claesson et al., 2006). Berleens' (2004) state that health follows social class patterns and varies according to different living conditions. Many people, especially those with a working class background, who do not have a long education, are low income-earners and have poor eating habits.

### **5.1.6 Occupation**

Based on Anttoilanen et al (2001) findings of functional food, users of Benecol® margarine could be found being employed as white-collar workers. Whereas our findings find significant difference among the groups, we can not find out which profession respondents work in. However, we can support the fact that the households of Becel pro-active does not have as many unemployed or temporarily working household members as the others. Further, respondents of Becel pro-active and Bregott would tend to have a large amount of senior household respondents compared to Lätta mini, which in turn tended to have a larger amount of part time working respondents.

### **5.1.7 BMI group**

Even though weight was not a variable considered in previous studies, significant results could be seen among the respondents. Respondents having the lowest amount of respondents being classified as obese could be found among households purchasing Becel pro-active. The use of Becel can in some sense be seen as a health enhancing product. Whether or not the usage of Becel pro-active has effect on people, additional information regarding the households' long time usage and specific health conditions would have to be followed up through a long time usage of these margarine products.

### **5.1.8 Members within the household**

In this part of demographic, we were unable to find a previous research area. Our finding would indicate that single households consisting of women were greater among Becel pro-active compared to Bregott and Lätta. Furthermore, it was indicated that Bregott and Lätta had a greater percentage of respondents consisting of two household members.

### **5.1.9 Women in the households**

When looking at the number of females within households it was indicated that households purchasing Bregott would differ with less females within the house, compared to Becel pro-active and Lätta.

### **5.1.10 Living**

In terms of living, indicated difference could be found of households of Bregott and Lätta be living in a rented flat, this compared to households purchasing Becel pro-active who were in greater amount living in a tenant ownership

### **5.1.11 Working household members**

A high noteworthy difference was the high amount of workers in the households among Lätta, where 43% of the households would comprise of two working household members, whereas almost 40% of the households of Becel pro-active and Bregott would have none worker within the household.

## **5.2 Geographics**

As previous studies of functional food regarding Sweden in general have been shorthanded, mainly focusing on attitudinal differences and geographical differences in general in terms of providing geographical differences among regions could not specifically be found. The results show a general purchasing difference where South Sweden has most purchases of margarine products. This could be explained due to the fact that many of the households participating are from South Sweden, followed by Central Sweden and North Sweden.

In terms of the size of the cities, it has been argued through Anttoilainen et al (2001) that the users of functional food tended to live in urban cities. From our results, it was shown that there were statistical differences, however, urban cities (Malmo, Gothenburg and Stockholm only accounted for 8,13% of the total purchases, compared to 13,04% of households of Bregott. Smaller cities, between 20 000 and 99 999 citizens accounted for the majority of the purchase. Hence it is hard to make a general schematic of entire Sweden.

## **5.3 Psychographics**

HealthFocus international (2003) came to the conclusions that consumers are not willing to trade health offerings regarding to price and taste. Questions of taste could not be researched upon, however, our results when looking at price consciousness it could be found that Becel pro-active and Bregott was not as price conscious in general as compared to households purchasing Lätta mini. Our results indicate that households purchasing Lätta would be price and offer oriented, and favour branded products with quality. Findings of the relatively low households among Becel pro-actives, as well as with Bregott, favouring low price stores and disregarding close location, this can be seen as a difference of trends of convenience of meeting the consumer.

The interesting finding of households purchasing Lätta mini, which can be regarded as a low fat margarine, would slightly agree on the statement of purchasing as healthy products as possible compared to Becel pro-active and Bregott who would most likely agree. One finding similar to ours is from the National Restaurant survey which shows that 72% of customers try to eat healthier. We would like to infer that since the age population is concerned with long-term health and there is a general trend towards health (Business Insight, 2005), it is reasonable to accept that the overall respondents from our survey answered to be almost agreeing to purchasing as healthy products as possible.



Regarding the green keyhole, households tended to score an average value of being slightly indifferent to intended purchasing of products with this label. However, it could be seen that households of Lätta tended to be keener on purchasing green keyhole labelled products compared to Becel pro-active and Bregott, which might be seen as a contradiction of not purchasing as healthy products as possible stated in the section mentioned above. Then again, Lätta is middle-range in the spectrum of health. It is less risky since it is not in the extreme spectrum of healthy foods; also, research states that consumers want to eat healthier, and that's the case with Lätta when compared to Bregott.

## **5.4 Behaviour**

Previous findings of behaviour regarding food products, food products have been regarded as being low-involvement. Purchase loyalty, which reveals how often the household would purchase their product within that specific category, was reported to be 93,28% for Bregott, 91,63% for Lätta mini and 76,44% for Becel pro-active.

Based on the fact that Bregott is a basic margarine, it is a low involvement product which requires limited decision making (Blackwell et al. 2001 cited in Klerck & Sweeney, 2007). Consumers need not draw upon their knowledge reservoir to calculate the physical, performance and psychological risk involved in selecting the product from the supermarket shelf. It is logical that Lätta has the second level of purchase loyalty among the respondent. As this product moves away from the natural spectrum, the risk perception and consumer involvement increase thus the reduce purchase loyalty seems plausible. The same reasoning can be applied to Becel pro-active; this product prompts consumers to be more risk-averse due it to having functional ingredients. With proper education from trusted sources, consumers risk perceptions are likely to reduce thus inducing the likelihood of higher purchase loyalty.

Included in our study of behavioural segmentation was Brand Loyalty. As mentioned in the results section, in terms of intended purchase, 36,8% of the respondents would prefer Bregott, 17,6% would prefer Becel and 20,9% would prefer Lätta. While likeability for brands was as follows: Bregott with 8,02, Becel with 7,79 and Lätta with 7,53. We did not find any study in the area of margarine food brands for Brand Loyalty to compare the findings from our second study. However, we would infer that Bregott's high brand loyalty is linked to the nature of the product. It is a common food product. When the two loyalties, behavioural and attitudinal, are combined Bregott is ranked the highest, followed by Lätta and Becel respectively.

## **5.5 Profile of the consumers**

### **5.5.1 Becel pro-active**

In accordance with our findings, the Becel pro-active consumer could be characterized as: often an old consumer between the ages of 60 to 70, being a women living in a single household, possible higher income level of 300,000 SEK and above, majority having a university degree, and classified as not being obese. The consumer would be living in a city with inhabitants of 50,000 – 99,000; She would not differentiate price difference among branded and unbranded goods, be price and offer oriented and would favour low price stores. She would most likely be health conscious; surprisingly, she would be indifferent to green

keyhole label. This consumer would be relatively satisfied with the brand, but would not be as loyal in terms of purchase loyalty compared to Bregott and Lätta.

### **5.5.2 Bregott**

The consumer purchasing Bregott would be aged in the range of 50 and above. Every fifth consumer would be ages 70 and above. They are more likely to have a partner, either married or in a common-law relationship. This consumer would often be a senior or working full. They would have an average income, with the income distribution being much more stable among the households respondents compared to the two other brands. This consumer is more likely to be living in an urban city. The consumer would not differentiate price difference among branded and unbranded goods, be price and offer oriented and would favour low priced stores. They would be keen on purchasing health product and favouring extra – spending once in a while, also, mostly be indifferent to the green keyhole label. In terms of behaviour, this consumer is most loyalty in terms of purchase loyalty and attitudes towards the brand.

### **5.5.3 Lätta**

The consumer of Lätta could be found in the lower age groups, from 25 years and above, most likely to be living with a partner, either as married or in a common-law relationship. The family would have more children, at least compared to Becel pro-active and Bregott consumers and the consumer would be most likely among the household to be classified as obese and the majority of consumers would have a low grade school education. Even though living in a house is the most common way of living, several respondents would be found living in a rented flat. The majority of consumers can be found having a household income between 300 000 and 500 000 SEK. In terms of geographical regions, almost 75% of the consumers would be found living in cities with 10 000 to 100 000 citizens. The majority of consumers would favour brands which would reassure quality of the product. The consumer favouring Lätta would be most likely to be price and offer oriented, equally interested of finding low price stores and shopping at quality stores with a good assortment of goods and a good location. The consumer would be regarded as least health conscious but would still be keener on purchasing Nyckelhåls-labelled products.

## **5.6 Practical and theoretical contributions**

Our contribution is aimed towards business practitioners who work in business environments implicitly or explicitly related to products of health and functional food. Results derived should benefit the decision making framing the potential consumer groups. Findings could support previous studies of health and functional food, whereas some findings are a bit contradictive we still hope the results will contribute to a better understanding of the different users of the margarine products.

Based on the approach of performing a segmentation, finding the right kind of consumers within a niche market is a business challenge. Previous research have focused on general needs towards health and relating the attitudes of functional food, limited amount of information has been found on who would actually tend to purchase the functional food products. In terms of finding the profitable customers still the nature of the product has to be specifically has to be it could be questioned. We hope that the framework and results will give insight to new business findings of the market of margarine and health in particular as to see the relevance of having a niche market and how it actually distinguishes itself. In terms of demographics, we could by incorporating a wide set of variables derive broad and deep profiles of consumers purchasing different products. For psychographics, we could further verify and build upon the concepts of price and health among consumers as well as health labelling regarding the Nyckelhåls-labelled. Even though consumers tend to agree on being relatively health conscious, differences in terms of price and choice of what consumers actually purchase tend to differ. By incorporating the behavioural dimension of segmentation, we hope to provide information on consumer's actual purchases which could be of use among business practitioners as to separate intended and actual purchases. Information of behaviour should be of further use when determining and segmenting the consumer in terms of profitability.

From a theoretical angle and foremost through the substantive framework we have contributed to the profiling of the fortified health food users. Through the usage of including the framework of segmentation and including the dimension of behaviour further additional information could be derived. We could relate our findings to previous research within the functional food, to confirm as well as to some degree contradict to previous findings. By incorporating the behavioural variables regarding loyalty we could find differences when it comes to purchase loyalty.

By further elaborating on including demographic variables such as weight but foremost to include the behavioural dimension in terms of loyalty further relationships to contribute of typifying functional food users. Looking for formal theory contribution was foremost through the use of alternative approach of segmentation. By looking through functional food from a different approach of segmentation, further information through behaviour could be derived.

## **5.7 Further research**

Clearly we believe further research has to be conducted for building up a concrete profile of the users of fortified health products. Upon its completion, this profile can be used for targeting consumers within a retail setting. Further research for verifying the importance backward segmentation on looking at actual purchase behaviour has to be further investigated.

## References

### Books

- Armstrong G. & Kotler P. (2003) *Marketing an Introduction*, Prentice Hall, sixth edition, Upper Saddle River, New Jersey
- Bryman A; Bell E (2003), *Business Research Methods*, Oxford University Press
- De Pelsmacker P., Geuenes M. & Van den Bergh J. (2004), *Marketing Communications A European perspective*, Prentice Hall, Pearson Education Limited, England.
- Easterby-Smith Mark, Thorpe Richard & Lowe Andy (2003) *Management Research An Introduction*, 2<sup>nd</sup> edition, Sage publications.
- Enis Ben M., Cox Keith K. & Mokwa Michael P. (1991), *Marketing Classics A Selection of Influential Articles*, Eight edition, Prentice Hall, Englewood Cliffs New Jersey.
- Heasman Michael & Mellentin Julian (2001), *The Functional foods revolution Healthy people, healthy profits?* Earthscan publications, London.
- Loudon, D.L (1988), *Consumer Behaviour: Concepts and Applications*, McGraw Hill, London..
- Malhorta, N., & Birks, D. (2003). *Marketing research: A applied approach*. Essex: Pearson Education.
- Rao, V.R, Steckel, J.H. (1998), *Analysis for Strategic Marketing*, Addison-Wesley, Reading, MA, .
- Saunders, M.; Lewis, P., & Thornhill A (2003), *Research Methods for Business Students* (3<sup>rd</sup> Ed.) Harlow: Persin Education Limited
- Solomon M, Bamossy G. & Askegaard S. (1999) *Consumer Behaviour A European perspective*, Prentice Hall, Pearson Education Limited, England.
- Söderlund Magnus (1998), *Segmentering – om marknadsföring på fragmenterade marknader*, Liber Ekonomi, Malmö.
- Yin, R (1994), *Case Study Research*. Thousand Oaks, CA: Sage.

### Articles

- Anttolainen, M, Luoto, R, Uutela, A (2002), Characteristics of users and nonusers of plant stanol ester margarine in Finland: An approach to study functional foods, *Journal of The American Dietetic Association*, Volume 101, Number 11
- Bandyopadhyay, S. and Martell, M (2006), *Journal of Retailing and Consumer Services*. "Does attitudinal loyalty influence behavioural loyalty? A theoretical and empirical study" Vol. 14. p. 35-44.

Beardsworth, A, Bryman Alan , Keil , Haslam, C, T , Lancashire , E et al. (2004), Women, men and food: the significance of gender for nutritional attitude and choices , *British Food Journal* , Vol. 104, No. 7, pp. 470-491

Berleen, G, “A healthier elderly population in Sweden!” (2004), National institute of public health – Sweden r 2004:2

Blackett, T. and Boad, B (1999). *Co-branding: the science of Alliance*, Macmillan, London

Cash, S, Goddard, E & Lerohl, M (2006), Canadian Health Food: The links between Policy , Consumers and Industry , *Canadian Journal of Agricultural Economics* 54 pp.605- 629

Childs, Nancy. M., & Poryzees, Gregg. H (1997). Foods that help prevent disease: consumer attitudes and public policy implications. *Journal of Consumer Marketing*, Vol 14 Issue 6, pp. 433–447.

Chipman, Helen; Kendall, Patricia (1995). Consumer reaction to a risk/benefit/option message about agricultural chemicals in the food supply. *Journal of Consumer Affairs*. Vol . 29 Issue 1, pp. 146-166.

Cobe, Patricia (2006), The healthy pantry. *Restaurant Business*, Vol.105 No 3, p. 61-64

Corney, M., Shepherd, R., Hedderley, D & Nanayakkara, C. (1994) Consumer Acquisition of Commercial and Nutritional Information in Food Choice. *Journal of Economic Psychology*, No. 15, pp. 285-300

Costa, A, Schoolmeester, D et al. (2007), To cook or not to cook: A means-end study of motive for food choice of meal solution, *Food Quality and Preference* 18 pp.77- 88,

Denscombe, M (1998), “The Good Research Guide” Buckingham, Open University Press

Frewer, L, Scholderer & Lambert, N (2003), Consumer acceptance of functional foods: issue for the future, *British Food Journal*, Vol. 105 No 10, pp. 714-731

Gilbert Linda (2000), “Marketing functional foods – how to reach your target audience”, *AgBioForum*, Vol.3 pp.272-290

Gilbert, Linda (1997), The consumer market for functional foods. *Journal of Nutraceuticals, Functional and Medical Foods*, 1(3), 5–21.

Gilbert, Linda (2000), The functional food trend: what’s next and what Americans think about eggs. *Journal of the American College of Nutrition*, 19(5), 507S–512S.

Hakim, C (2000), *Research Design: Successful Designs for Social and Economic Research*, London, Routledge

Haley R.I., (1968) Benefit Segmentation: A Decision-Oriented Research Tool, *Journal of Marketing*, Vol. 32, July, 30-35

Havas Stephen, Treiman Katherine, Langenberg Patricia, Ballesteros Michael, Anliker Jean, Damron Dorothy & Robert (1998), "Factors associated with fruit and vegetable consumption among women participating in WIC", *Journal of the American Dietetic Association*, Vol 98, pp.1141-8.

Helakorpi S, Uutela A, Prättälä R & Puska, P (1998), "Health Behaviour among Finnish Adult Population", Helsinki: Publications of the National Public Health Institute B10; 1998.

Hilliam, M (1996) 'Functional Foods: The Western Consumer Viewpoint', *Nutrition Reviews*, Issue 54. Volume 11, pp. 189-194

Ippolito, P.M., & Mathios, A.D. (1994), Nutritional Information and Policy: A Study of U.S. Food Production Trends. *Journal of Consumer Policy*, Vol 17, No 3, pp. 271-305

Jacob, H (1994), "Using published data, errors and remedies", in Lewis-Beck, M.S. (ed.) *Research Practice*, London, Sage and Toppan Publishing, pp. 339-89.

Keiningham, T, Aksoy, L et al. (2005), Does customer satisfaction lead to profitability? The mediating role of share-of-wallet *Journal of Managing Service Quality* Vol. 15 No. 2, 2005 pp. 172-181

Kervin, J.B. (1998), *Methods for Business Research* (2<sup>nd</sup> edition), New York, HarperCollins

Klerck, D, & Sweeney, J (2007), The Effect of Knowledge Type on Consumer- Perceived Risk and Adoption of Genetically Modified Foods *Journal of Psychology and Marketing* Vol 24 (2): 171-193

Liberatos P, Link BG, Kelsey JL (1988), The measurement of social class in epidemiology. *Epidemiology Rev.* 10:87-121.

Light, L (1997), *Direct Marketing*. "Brand Loyalty Management: The Basis for Enduring Profitable Growth." Vol. 59. No. 11. p. 36-43.

Mazis M.B., & Raymond, M.A. (1997), Consumer Perceptions of Health Claims in Advertisements and on Food Labels. *The Journal of Consumer Affairs*, 31 No 1, pp. 10-26

Menrad, K (2000), Economic implications of Agro-Food biotechnology, *Journal of the Science of Food and Agriculture*, Wiley, Vol. 80, pp. 539-546

Meyer-Waarden, L (2006), Effects of loyalty programs on customer lifetime duration and share of wallet, *Journal of Retailing* 83 (2, 2007) 223–236

Ming-Hui Huang and Shihti Yu (1999), "Are Consumers Inherently or Situationally Brand Loyal?—A Set Intercorrelation Account for Conscious Brand Loyalty and Nonconscious Inertia"

Nirva Mari & Mäkelä, Johanna (2007), "Finns and functional foods: socio-demographics, health efforts, notions of technology and the acceptability of health-promoting foods", *International Journal of Consumer Studies*, Volume 31, Number 1, pp. 34-45(12)

Pender, N J, Walker, S N, Sechrist, K R et al. (1990), 'Predicting health promoting lifestyles in the workplace' *Nursing Research* 39 (6) 326-332

Peppers D. & Rogers M. (1997), *Enterprising, Marketing Business*, May, 30-31

Prättälä R Berg MA, Puska P (1992), Diminishing or increasing contrasts? Social class variation in Finnish food consumption patterns, 1979-1990, *European Journal of Clinical Nutrition*, Vol 46, pp 279-287.

Shelly Grabe, Janet Shibley Hyde, Sara M. Lindberg (2007) "BODY OBJECTIFICATION AND DEPRESSION IN ADOLESCENTS: THE ROLE OF GENDER, SHAME, AND RUMINATION" *Psychology of Women Quarterly* 31 (2), 164–175.

Svedberg, Peter, 2006, "Declining child malnutrition: a reassessment," *International Journal of Epidemiology*,

Urala , N, Arvola , A & Lähteenmäki (2003), Strength of health-related claims and their perceived advantage , *International Journal of Food Science and Technology* 2003, 38 , 815-826 ,

Urala , N, Arvola , A & Lähteenmäki (2004), Attitude behind consumers' willingness to use functional food , *International Food Quality and Preference* 15 pp.793-803

Urala, N, & Lähteenmäki, L (2005), Consumers attitudes towards changing functional food, *International Food Quality and Preference* 18(2007) 1-12,

Verbeke Wim, (2004), "Consumer acceptance of functional foods: socio-demographic, cognitive and attitudinal determinants", *Food Quality and Preference*, 16, pp. 45–57

Wayland R.E. & Cole P.M., (1997) *Customer Connections: New Strategies for Growth*, Harvard Business School Press, Boston, Massachusetts

Wilson Christine A, Abbott Sharon D, Who buys functional foods? (2005), "Who buys functional foods?" *Agri Marketing*, 43:8, pp. 58-59.

Wrick, K. L. (1992), "Consumer viewpoints on designer foods". *Food Technology*, pp.100–104.

Wrick, K. L. (1995), "Consumer issues and expectations for functional foods" *Critical Reviews in Food Science and Nutrition*, Vol 35 Issue 1&2, pp.167–173.

Wirtz, J, Mattitla, A et al. (2007), How Effective are Loyalty Reward Program in Driving Share of Wallet? *Journal of Service Research*, Volume 9, No. 4, May 2007 327-334

Winkleby MA, Fortmann SP, Barrett DC (1990), Social class disparities in risk factors for disease: eight-year prevalence patterns by level of education. *Prev Med*;19: pp.1-12.

### **Internet**

[http://www.unilever.com/ourbrands/foods/Becel\\_Flora.asp](http://www.unilever.com/ourbrands/foods/Becel_Flora.asp)

[http://www.scb.se/templates/tableOrChart\\_\\_\\_\\_194233.asp](http://www.scb.se/templates/tableOrChart____194233.asp)

[www.sjv.se](http://www.sjv.se) "Statens Jordbruksverk" (2005)

[www.foodoresund.com](http://www.foodoresund.com)

### **Unpublished**

Bech-Larsen, T and Grunert, K (2001), The perceived healthiness of functional foods, A conjoint study of Danish, Finnish and American consumer's perception of functional foods: The MAPP Centre, The Aarhus School of Business,

Poulsen, Jacob B (1999), "Danish consumers' attitudes towards functional foods". MAPP Working paper 62. The Aarhus School of Business, Aarhus.

Kilsby, T. & Nyström H., (1998) Utveckling och marknadsföring av nya svenska livsmedel med medicinsk effekt (functional food). Uppsala: Swedish University of Agricultural Sciences (SLU).

### **Thesis**

Jälminger, Anna-Karin (2001), *Konsumenters inställning till functional food – en enkätundersökning*, Institutionen för medicinsk näringslära, Karolinska institutet & Institutionen för folkhälso- och vårdvetenskap, Uppsala universitet.

Claesson, Jansson 2006 "In-store behaviour of healthy consumers- A study of behavioural differences between consumers who choose healthy products and consumers who choose regular products"

### **Other Sources**

Andersson M. (1994), *Consumer Demand for Food – Socioeconomic and demographic factors Impact on Swedish food expenditures*, Department of economics, Swedish University of Agricultural Sciences, Dissertation no 10, Uppsala.

Swedish Health Summit (2005), Health Focus International (Linda Gilbert- President).

Health Claims in the Labelling and Marketing of Food Products (2004)

Journals of Gerontology (1993)

Jessica Sadler (2005) Innovation in Functional Food and Drinks – Growth opportunities from new nutraceutical ingredients, Business Insight.

Ben Longman (1999) Strategies in Nutraceuticals - Functional Food and Drinks, Business Insight.



## Appendix

*Table: Descriptive summary of demographic characteristics*

		<i>Becel pro</i>	<i>Bregott</i>	<i>Lätta</i>
<i>Gender</i>	Man	18,20%	20,30%	20,00%
	Woman	81,80%	79,70%	79,90%
<i>Age</i>	70 år +	16,30%	21,50%	6,80%
	65 - 69	20,30%	15,60%	9,10%
	60 - 64	21,40%	10,10%	10,00%
	55 - 59	15,20%	16,10%	17,10%
	50 - 54	11,90%	12,70%	9,70%
	45 - 49	9,80%	6,10%	14,70%
	40 - 44	3,30%	5,70%	13,90%
	35 - 39	1,60%	4,00%	8,50%
	30 - 34	0,00%	5,00%	4,20%
	25 - 29	0,00%	2,00%	5,00%
	20 - 24	0,03%	0,07%	0,90%
	-19	0,00%	0,50%	0,00%
<i>Marital Status</i>	Married/Common law	64,20%	72,10%	80,70%
	Single	35,80%	27,10%	18,80%
	Child	0,00%	0,80%	0,30%
<i>Members within the Household</i>	1 Woman	31,20%	18,40%	10,70%
	1 Man	0,80%	4,80%	4,30%
	2pers	38,20%	51,10%	49,70%
	3pers	16,30%	11,00%	16,80%
	4pers	12,70%	10,70%	14,40%
	5pers	0,80%	3,10%	4,00%
<i>Women in Household</i>	6pers	0,00%	1,00%	0,10%
	1	79,00%	85,50%	78,70%
	2	17,50%	9,30%	16,70%
	3	3,60%	5,60%	4,40%
<i>Children under 18year</i>	4	0,00%	0,00%	0,20%
	0	81,00%	77,90%	69,10%
	1	11,90%	8,60%	17,20%
	2	7,00%	9,70%	10,20%
	3	0,00%	2,80%	3,40%
<i>BMI-group</i>	4	0,00%	1,00%	0,10%
	Obese	4,90%	11,00%	24,80%
	Overweight	42,30%	33,60%	33,80%
	Normal	48,20%	45,30%	29,70%
	Underweight	0,30%	0,70%	0,00%

Table: Descriptive summary of socioeconomic characteristics

		<i>Becel pro</i>	<i>Bregott</i>	<i>Lätta</i>
<i>Education</i>	Grade school	31,20%	35,20%	53,80%
	High school	35,80%	39,00%	25,70%
	University	53,80%	22,40%	23,30%
<i>Occupation</i>	Fulltime	45,30%	34,00%	45,90%
	Temp. Work/None	0,30%	8,00%	7,90%
	Senior	41,50%	41,00%	22,60%
	Part time	12,70%	16,00%	20,40%
	Student	0,30%	1,00%	2,90%
<i>Living</i>	Rented flat	12,70%	21,90%	26,00%
	House	51,80%	49,10%	49,90%
	Tenant-ownership	29,50%	19,00%	16,10%
	Farm	5,40%	6,00%	4,20%
	Other	0,00%	0,80%	0,50%
<i>Workers in household</i>	None	37,40%	40,00%	24,30%
	1	26,60%	28,50%	30,90%
	2	25,50%	29,30%	43,00%
	3	10,60%	2,10%	1,70%
	4	0,00%	10,00%	0,00%
<i>Household income (sek)</i>	0-99.000	0,30%	3,60%	1,00%
	100.000-139.999	10,30%	6,90%	3,40%
	140.000-179.999	10,00%	7,10%	4,30%
	180.000-199.999	3,30%	3,30%	3,40%
	200.000-259.999	17,10%	13,40%	7,30%
	260.000-299.999	8,40%	8,00%	8,10%
	300.000-399.999	15,40%	20,80%	24,50%
	400.000-499.999	14,40%	14,80%	25,60%
	500.000-599.999	6,80%	9,40%	12,80%
600.000- +	12,50%	8,70%	6,60%	