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*Master Thesis
February 2005*

Confectionary with Functional Ingredients – What does the Swedish Consumer Say?

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Sammanfattning

- Titel:** Confectionary with Functional Ingredients –
What does the Swedish consumer Say?
- Seminariedatum:** 4 februari 2005
- Ämne/kurs:** Magisteruppsats i Marknadsföring, 10 poäng
- Författare:** Patrik Löfving
- Handledare:** Professor Magnus Lagnevik
- Nyckelord:** Functional Food, Godis, Fokus grupp, Segmentering, Innovationer
- Syfte:** Syftet med studien är att klargöra den svenska konsumentens kunskap, attityd och acceptans av funktionella ingredienser i konfektyr. Vidare är ambitionen att få en uppfattning om vem den potentiella functional confectionary konsumenten kan vara.
- Metod:** En abduktiv, explorativ ansats med en kvalitativ metod i form av fokusgrupp studie innefattande fem fokusgrupper.
- Teoretiska perspektiv:** Consumer Behavior, Innovations spridning, Segmentering, Food Choice
- Empiri:** Transkriberat material från fem fokusgrupper samt ett stort antal vetenskapliga artiklar inom consumer behavior.
- Slutsatser:** Kombinationen av hälsa (functional food) och smak (godis) är svår för konsumenten i likhet med diffusion of innovation teori. Dock finns det vissa positive aspekter som kan tas till vara på för en framtida produkt lansering.

Summary

- Title:** Confectionary with Functional Ingredients –
What does the Swedish Consumer Say?
- Seminar date:** 4th of February, 2005
- Course:** Master thesis in Business Administration, 10 Swedish Credits (15 ECTS), major: Marketing
- Author:** Patrik Löfving
- Advisor:** Professor Magnus Lagnevik
- Key words:** Functional Food, Confectionary, Focus groups, Innovations, Segmentation
- Purpose:** The purpose of this study is to clarify the Swedish consumer's knowledge, attitude and acceptance of functional ingredients in confectionary. Further the ambition is to be able to get an understanding for who a potential functional confectionary consumer will be.
- Methodology:** An explorative study with an abductive perspective. Additionally five focus groups with consumers were used as well as an extensive amount of secondary material mostly consisting of scientific articles.
- Theoretical perspective:** Consumer behavior and consumer research perspectives with the main focus on Diffusion of Innovations, Segmentation and Food Choice theories
- Empirical foundation:** Transcribed material from five focus groups with a total of 21 participants. Additionally scientific articles and other secondary sources were used as reference and comparison.
- Conclusions:** The consumer finds the combination of health (functional food) and taste (confectionary) difficult in line with diffusion theory, although there are some positive aspects for a future product.

“Our minds are like our stomachs;
they are whetted by the change of their food,
and variety supplies both with fresh appetites.”

Marcus Fabius Quintilian (35 - 90) Roman orator

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1. Introduction

This chapter will begin with a short background to the topic before venturing into a discussion of the research purpose and questions. Thereafter limitations and the target group of this paper will be discussed before disclosing the disposition of the paper.

1.1 Background

The connection between food and health is increasingly gaining interest among today's consumers¹ and can be expected to be of interest for a long period of time² as there is an interest to eat an optimal diet instead of an adequate one e.g. including disease prevention.³ The food industry is increasingly making use of this new segment, not only by selling products that will decrease the impact on your body (decreased salt, sugar and fat), but also promoting products that will increase your wellbeing.⁴ The products having this effect have become known as *Functional Food* (although with a number of definitions). The growth rate of this segment is high⁵ with the revenues expected to be higher than from traditional food.⁶ Because of these reasons functional food has become a top priority in the food industry for the coming years.⁷ For consumers the functional products *seem* to be everywhere, creating confusion as to what a functional food product is with occurring examples such as dairy products that are “good for your stomach”, vitamin enriched juice, protein enriched frappuccinos at the coffee shop, Omega-3 enriched bread and other.⁸ The trend is also gaining momentum in the confectionary industry where a number of products containing everything from vitamins to antioxidants to ingredients claiming to improve your memory occur.⁹

1.2 Problem discussion, purpose and research question

The main focus of this study is to get a deeper understanding of the consumers understanding, attitudes and acceptance regarding functional ingredients in confectionary products (from this point on called functional confectionary). As there have been quite a few studies addressing the matter of functional food, almost none have investigated the area of functional ingredients in confectionary. As this is the case, the focus of this study will be explorative, to get a broad base of ideas from consumers regarding the topic. Further I believe that in order to discuss

¹ Young (2000) in van Kleef, E. et al (2002) “Consumer oriented functional food development”

² SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*

³ Diplock et al (1999) in McConnon, P.L. et al (2004) “Differences in perceptions of functional foods”

⁴ Bhaskaran, S. & Hardley, F. (2002) “Buyer beliefs, attitudes and behaviour: foods with therapeutic claims”

⁵ Euromonitor (2000) in Frewer, L. et al (2003) “Consumer acceptance of functional foods: issues for the future”

⁶ Heasman & Mellentin (2001) in Östberg, J. (2003) *What's eating the eater?* p. 78

⁷ Hasler (1998) in Gray, J. et al (2003) “Opportunities and constraints in the functional food market”

⁸ Bech-Larsen, K.G. et al (2001) “The acceptance of functional food in Denmark, Finland and the United States”

⁹ Vreeland, C.C. (1999) “Nutraceuticals Fuel Confectionery Growth”

functional confectionary with consumers it will be necessary to first address the two more familiar topics of functional food and confectionary. I believe that the topic is of relevance as there is an increasing interest from the confectionary industry to make use of the functional food segment and that there are few studies carried out within this area. According to Gray et al “consumer research within the functional food sector is still in its infancy and further research is recommended to understand consumer needs, attitudes and perceptions more fully.”¹⁰ Regarding my specific topic the combination of confectionary that traditionally is regarded as something sweet, high in calories, and functional food that has the purpose of giving you a health benefit, also causes an interesting dilemma for the consumer and subsequently for a company interested in this market. This leads to the following purpose:

The purpose of this study is to clarify the Swedish consumer’s knowledge, attitude and acceptance of functional ingredients in confectionary. Further the ambition is to be able to get an understanding for who a potential functional confectionary consumer will be.

To be able to carry out the intended purpose of the study the research questions are:

- What is the Swedish consumer’s understanding of the combination of functional food and confectionary, thus functional ingredients in confectionary?
- Is it a feasible combination in the mind of the consumer?
- When does a confectionary product become a functional product, is it possible to make a distinction?
- Which combinations of functional food and confectionary are of interest to the consumer and why?
- Which factors influences the choice of functional confectionary the most and can this be explained?
- Are there some segments that are more interested in the combination than others?

To clarify the purpose consumer *knowledge* will in this paper be defined as consisting of two elements: familiarity, which is the number of product-related experiences that has been accumulated by the consumer. Secondly expertise, as the ability to perform product related tasks successfully as suggested.¹¹ Furthermore the expression *attitude* will be defined in line with e.g. Solomon as a threefold including affection – the feelings associated with an object, behavior – what a consumer will do in regards to an object and finally cognition – the beliefs a consumer has towards an object.¹²

¹⁰ Gray, J. et al (2003) “Opportunities and constraints in the functional food market”

¹¹ Alba & Hutchinson (1987) in Saaksjarv, M. (2003) “Consumer adoption of technological innovations”

¹² Solomon, M.R.(2003) *Consumer Behavior Buying, Having, and Being*

1.3 Limitations

The study has been conducted in Sweden with most of the participants originating from the southern parts of the country, thus the conclusions are limited. The scope of the study is limited to Sweden in particular and Scandinavia in general although with input from the rest of the world considering trends, attitudes and regulations concerning functional food. Regarding the implementations for the confectionary industry the main focus of this paper is sugar confectionary, thus chocolate is not included. Further the focus of this paper is not on existing confectionary products on the market today such as xylitol products that are good for your teeth or other “light” products with artificial sweeteners, but rather on products not yet found in Scandinavia with some sort of additional function.

1.4 Target group

The intended readers of this paper are students and teachers at business schools around the world and individuals in the food industry in general and the sugar confectionary industry in particular.

1.5 Disposition

I will now introduce the matters of discussion in the following chapters.

Chapter 2 discusses the methodological choices made, also describing how the empirical data has been gathered and treated. Additionally the theoretical perspective in the thesis will be explained. Thereafter a description of alternative options will be made as well as a discussion on the pros and cons of the chosen technique. Finally secondary sources and, validity and reliability will be discussed.

Chapter 3 starts with a distinction between different types of confectionary and confectionary industries. Thereafter a short introduction to the market situation of the sugar confectionary industry in Scandinavia will be conducted. This is followed by description of sugar consumption as a whole, in Scandinavia in general, and Sweden in particular. Further the debate concerning sugar is discussed in relation to confectionary consumption before the chapter is summarized.

Chapter 4 addresses the issue of functional food beginning with discussing the problem of definitions and regulations. Thereafter follows a short review of existing approved functional food products in Sweden today, supplemented by a more extensive section introducing and describing existing functional confectionary products, rounding of with trends influencing functional food today.

Chapter 5 presents the empirical material beginning with a vertical analysis discussing the different topics and arguments made within every separate focus group. Thereafter a comparison is made between the focus groups as well as with earlier research, followed by a concluding discussion.

Chapter 6 introduces the theories used in this paper including consumer behavior, diffusion, segmentation and food choice theory. Additionally theories discussing attitudes towards health, company social responsibility and the corporate brand will be introduced.

Chapter 7 contains the analysis with comparisons between theories and the empirical material as well as a presentation of a conceptual functional confectionary choice model.

Chapter 8 summarizes the paper with the most important conclusions and a discussion concerning further research. Additionally the most interesting managerial implications are presented regarding opportunities and threats of functional confectionary.

2. Methodology

In this chapter I will explain how and why I have made my choices concerning method. Additionally the theoretical perspective will be discussed before a thorough description of the chosen method is made, clarifying how it has been used during the different stages of planning, execution, collection and analysis. Thereafter alternative methods will be discussed and the pros and cons of my method of choice will be summarized. Finally secondary material and the reliability and validity of this study rounds of the chapter.

2.1 Choice of research method

The divider in methodology is between two major schools. The first is the positivistic school where the founding idea is that the researcher can observe the world objectively with the tools of explanation, measurement and quantification. The research question is normally in this case supplemented by a hypothesis. This is also called a deductive approach where you as researcher use general principles, like existing theory, to draw conclusions about the empirical world. As a result of such an approach generalisations are common.¹³

The second is the hermeneutic approach where the basic idea is to interpret, describe and understand the world around us. Under this approach the researcher is prepared to change the research question as new empirical findings are made. This is also called an inductive approach where the researcher first looks at the gathered empirical data and then lets it guide the choice of possible theories to use.¹⁴ The gathering of empirical data is characterized by an open approach between the researcher and the researched entities. Objectivity is seen as something that is hard to obtain as the researcher is constantly making choices and interpretations based on subjective beliefs.¹⁵ It is also common under this approach to work with several parts of the paper simultaneously, thus not being guided by a conclusive plan.¹⁶ The results from such a study are limited to the situation as well as the possibility to give generalized conclusions. The benefit of the approach is rather the depth of the gathered information which might help researchers to understand the meanings behind the thoughts of e.g. consumers and thereby being able to obtain a deeper understanding.

The middle way between deduction and induction is called abduction where the researcher has his/her foundation in the empirical world although not rejecting earlier theoretical findings. Theory can be used as a source of inspiration and aid in the uncovering of patterns in the empirical material as a whole. The empirical study can according to this approach be

¹³ Lundahl, U. & Skärvad, P-H. (1999) *Utredningsmetodik för samhällsvetare och ekonomer*, p.34ff

¹⁴ Lundahl, U. & Skärvad, P-H. (1999) *Utredningsmetodik för samhällsvetare och ekonomer*, p.42f

¹⁵ Jacobsen, D.I. (2002) *Vad, hur och varför?*, p.36

¹⁶ Andersen, I. (1998) *Den uppenbara verkligheten Val av samhällsvetenskaplig metod*, p.31f

combined with earlier theoretical findings, and combining the two throughout the study is recommended.¹⁷ The three different approaches are described in the figure 2.1.

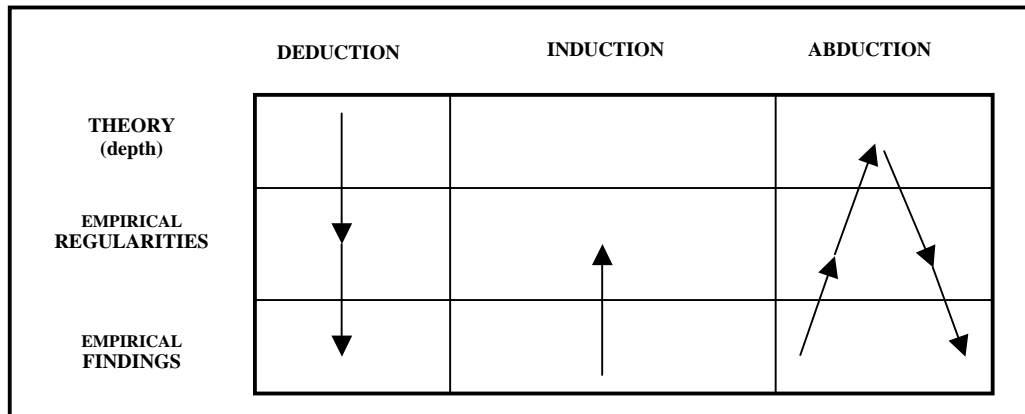


Fig. 2.1 Three methodical approaches: Deduction, Induction and Abduction¹⁸

The general theoretical approach in this study will be abduction. I have used results and ideas from earlier studies and theories as a help in forming my own research. However the results and ideas occurring in the empirical material is the main guide for my selection of theories used when analysing the material. In the next section the selection of theoretical perspective will be discussed.

2.2 Theoretical perspectives – understanding and choosing

It might be seen as somewhat unorthodox to introduce theoretical perspectives in the methodology chapter. But as my methodological approach is abduction the empirical findings will be introduced before the theoretical chapter thus an understanding, already at this stage of the paper, regarding theoretical perspective might be useful. The theory concerning consumer behavior can according to Östgaard et al be divided into four broad perspectives; buyer behavior, consumer behavior, consumer research and consumption studies. The main difference between the different perspectives is there understanding of the consumer. Somewhat confusing when talking about different perspectives is that the entire field of research commonly is know as consumer behavior as well as one of the perspectives of this field of research. According to Östgaard et al the development has occurred over time with beginning in the *buyer behavior* perspective which had its focus on the act of buying per se. The consumer was seen as, in an animal like way, being driven by instinct and basic needs. The mind of the consumer was seen as a “black box” where stimuli on one side lead to some sort of response which the researcher tried to interpret, indicated in figure 2.2.¹⁹

¹⁷ Alvesson, M. & Sköldbberg, K. (1998) *Tolkning och reflektion*, p.42

¹⁸ Adapted after Alvesson & Sköldbberg (1998) *Tolkning och reflektion*, p.45

¹⁹ Östgaard, P et al (2000) “Shifting perspectives in Consumer Research” in Bayer, A. et al (2004) *Konsumentens Matval*

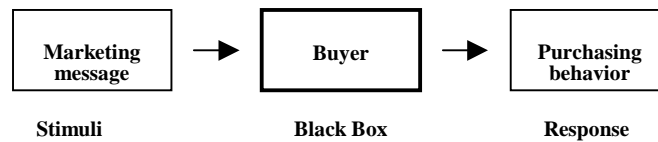


Fig. 2.2 A black box model ²⁰

During the 1960s buyer behavior started to lose its influence and *consumer behavior* entered the scene. The interest now, was on what happened between the stimuli and response in the so called “black box”. The metaphor changed and the consumer started to be seen more as a computer rather than an animal, since it was considered that the consumer calculated every purchase by interpreting information and always making the rational choice.²¹ Figure 2.3 describes the main stages of one of the perhaps most classic consumer behavior models introduced by Engel, Kollat and Blackwell.²² Note that the focus is wider and more comprehensive compared with the black box model.

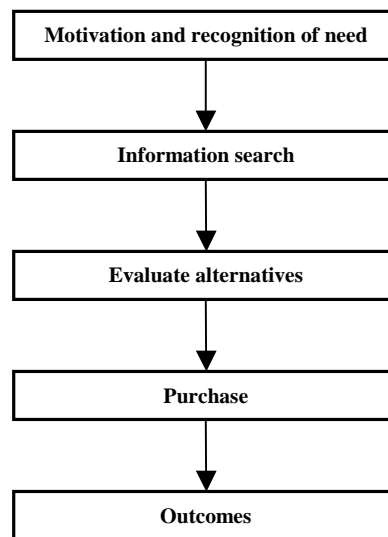


Fig. 2.3 The main stages of the EKB model ²³

The next stage in the development of the study of consumer behavior, according to Östgaard et al occurred during the 1980s with the *interpretive turn* which changed the focus away from the positivistic school of experiments and measurements towards interpretation and understanding in what has been called *consumer research*. In this perspective the consumer is not the rational person that she is presumed to be in the earlier perspectives, instead feelings and narcissistic factors of the consumer are considered. The metaphor of tourist is introduced, as the consumer is seen as an individual constantly seeking new experiences through consumption. The fourth and final perspective introduced by Östgaard et al themselves is

²⁰ Modified after Bareham, J. (1995) *Consumer Behaviour in the Food Industry A European Perspective*

²¹ Bayer et al (2004) *Konsumentens Matval*

²² Engel et al (1968) in Bareham, J. (1995) *Consumer Behaviour in the Food Industry A European Perspective*, p.5

²³ Bareham, J. (1995) *Consumer Behaviour in the Food Industry A European Perspective*, p.8

consumption studies. Here the consumer is seen as belonging to a group constantly striving to fit in, with the right group of reference. Products are, according to this perspective, bought because of their symbolic value in relation to the surroundings in hope of being accepted.²⁴ Figure 2.4 summarizes the four perspectives.

| Perspectives | Buyer Behavior | Consumer Behavior | Consumer Research | Consumption Studies |
|--|----------------------------|----------------------|------------------------|------------------------------|
| The consumer metaphor | Animal | Computer | Tourist | Tribe member |
| Ontology of Consumption | Mechanical Instinct driven | Electronic rational | Emotional Narcissistic | Metaphysical Symbolic |
| Character of the Subject Matter | The Stomach's Needs | The Brain's Wants | The Heart's Desires | The Eye's Recognition |
| Primary method | Experiments | Questionnaire | In-depth Interviews | Fieldwork |
| Scientific Foundation | Behaviourist Physiology | Cognitive Psychology | Existential Psychology | Cultural and Social Theories |

Fig. 2.4 Four consumer behaviour perspectives²⁵

As with almost all models this categorization is somewhat simplified. Östgaard et al recognizes that consumer behavior research normally is carried out in a crossover style, not as easily categorized as in the above model. However the categorization aids in the understanding of the development of the area. Regarding the most suitable perspective for this study I believe that a combination of consumer behavior and consumer research is the most suitable. Regarding food choice, in many ways, the consumer can be seen as influenced by emotions, norms and values, as a guide, constantly with them. Although at the same time when standing in a store choosing between two options, simple cues like price or bag size can be decisive. Consumption studies might not be as applicable regarding food although, as will be explained more thoroughly in the theoretical chapter, cultural belonging does influence food choice. The choice of theoretical perspective is also constant with the chosen technique for this paper, thus somewhere between questionnaires and in-depth interviews, which now will be explained more thoroughly.

2.3 Choosing research technique

The purpose and research questions in this paper are of an exploratory nature and interpretation and comprehension is the main objective. Further, to the Swedish consumer, relatively new product ideas are to be discussed. According to Malhotra & Birks the most suitable approach for such a study is the focus group. The technique is appropriate when new ideas are discussed and it gives the opportunity for participants to build on each others ideas and, as a researcher, to get a deeper understanding.²⁶ Focus groups are also appropriate when:

- it is believed that there are differences between groups of consumers in the society
- when motivation and behavior is to be examined and the researcher can get an understanding of the motivators behind particular behaviors

²⁴ Östgaard, P. & Jantzen, C. (2000) "Shifting Perspectives in Consumer Research"

²⁵ Östgaard, P. & Jantzen, C. (2000) "Shifting perspectives in Consumer Research", p.19

²⁶ Malhotra, N.K. & Birks, D.F. (2003) *Marketing Research: An Applied Approach*, p.60f

- when differences are to be interpreted between diverse groups in society²⁷

An alternative technique is individual interviews. This technique can be useful to get even deeper, than with focus groups, in to the psyche of a consumer with the help of e.g. laddering and means-ends chains. The reason for not choosing this technique is that the subject of discussion is quite new and I wanted to find out what peoples thoughts were about the subject rather than getting deep into the mind of single consumers. After researching the matter of different techniques the choice, in correlation with my purpose and research questions, is thus focus groups. In the next section I will describe the focus group technique more thoroughly also explaining my choices regarding the technique.

2.4 Gathering of the primary material – Focus group study

Four different steps can be identified in the process of creating a focus group study. The first is the planning phase where the foundation is laid. The second is the sampling process of how and where to find respondents. The third is how to actually conduct the discussion and the fourth and final is the analysis of the gathered material.²⁸ I will now explain the recommended approach to each step and the choices I have made along the way.

2.4.1 Planning

The two main approaches for conducting a focus group study are the *structured* and the *unstructured* discussions. When using the structured approach the moderator has a higher degree of influence over the group and has a number of questions that needs to be answered. The structured approach can be used for market research or/and when the subject discussed is sensitive. The unstructured approach allows the group to be less constrained in their discussions and the moderator does not have a number of preset questions, but rather allows the group to find their own way of discussing the matter and only interfering if the group drifts to far of track.²⁹

There are pros and cons with both approaches. Using structured interviews can be risky as the moderator might influence the debate in too high a degree and thereby intimidating the creativeness in the group and the reliability of the study. On the other hand there is a better chance of covering the intended aspects of the study and also making sure that all the participants in the groups gets a chance to make their opinion heard. The unstructured approach calls for low involvement from the moderator, allowing the participants to discuss more freely. The moderator can instead observe and see if the group discussion follows the, intended ideas. The free flow of discussion can bring many new creative ideas to the attention of the researcher but on the other hand subjects that were wished to be discussed can be missed. As with all techniques there is the possibility to combine and find a middle ground.³⁰

²⁷ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod*, p.40-42

²⁸ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod*

²⁹ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.44-47

³⁰ *ibid.*

Another important issue in the planning stage is whether to give some sort of compensation to the participants. It is recommended not to reveal this when recruiting and only to give something symbolic or of lesser value as a token of appreciation for their participation.³¹

The focus group discussions in this paper have followed a combined approach. Making sure that all topics are covered, and that all participants gets a chance to speak their mind are high priorities. Although when a discussion about a topic was flowing and creativity and ideas were popping up, I as moderator sat back and listened. This approach draws on the benefit of both techniques hopefully contributing to both the validity and reliability in the gathering of empirical material.

2.4.2 Sampling

I decided early on in my study to use five focus groups of different constitutions. The reason for this was that I wanted to get a sample of ideas from people of different socio-demographic background, cohorts, age and gender. One of the most appropriate ways for obtaining groups of such differences is the snowball technique, according to which two steps of sampling are used. The first is the choice of appropriate individuals who represent each of the desired group characteristics. The second step is through referrals from these individuals gather a group of similar respondents.³² With the help of friends and relatives and I began the task of finding individuals that fulfilled the preset determents. I asked an appropriate individual if they wished to help me in my task, explained the determents of their group, and asked them to try to find between four and five persons that they believed would be interested in taking part in a discussion. Through this procedure I got access to already existing groups which has many advantages but also some drawbacks. There is a balance between having people that know each other from previous contact and finding respondents that do not know each other. If the respondents are familiar to one another the discussion may benefit from this as there might be less hesitation and the discussion can have a better flow as respondents feel more comfortable. This is known as group-cohesion, and is an important factor to get the group to function. The drawback from too much group-cohesion can on the other hand be that the respondents drift away from the subject and start talking about something previously known to the group. Additionally there might be a problem of group-thinking, everyone being in agreement.³³ With these considerations at hand my decision was to use existing groups as this also saves some time in the sampling stage.

The recommended group size for a focus group discussion is, according to the literature, between four and as many as 16 persons. Although a recommendation of between four and six participants seems to be the dominating consensus. If a group contains more than six people there is a risk of subgroups within the discussion and people not being able to participate in the discussion in a desired way.³⁴ The number of groups needed for a specific study can be difficult to know. Enough material for a fruitful analysis, where some sort of pattern can be

³¹ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.71

³² Malhotra, N.K. & Birks, D.F. (2003) *Marketing Research: An Applied Approach* p.366-367

³³ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.28f

³⁴ Wibeck, V. (1998) *Att arbeta med fokusgrupper*, p.5

found, should as a rule of thumb be at least three. A complex subject and a high degree of dissonance between groups require a higher number of groups. On the other hand can too many groups lead to theoretical saturation, where enough information about the subject already has been uncovered, and additional groups may lead to information overload.

The groups selected for this study was a total of five, making sure to cover eventual gender and age differences and to some extent differences between people of different background and with a special group of parents with young children as they are a group of special interest to the sugar confectionary industry. The first group consisted of men in the ages 27 to 28 who are active athletes, the second group consisted of women 26 to 32 who are predominantly teachers, the third group consisted of 42-67 year old men mainly working class, the fourth of three women and one man of the same age who are academics with more than five years of university studies behind them (the idea for this group was to have only women but due to last minute sickness a male replacement was called in thus changing the group from women to academics. I do not think this affected the quality of the study but rather it added the dimension of education level which made an interesting contrast to the group of males 42-67). The fifth group consisted of parents with young children. For a more detailed overlook of the participants see appendix 3. After a period of sampling and planning, the actual discussions can take place.

2.4.3 Conducting the discussion

The discussion phase requires preplanning and the making of some important decisions. To begin with a decision about some sort of stimuli material has to be made. A stimuli material is recommended if the participants are unfamiliar with the subject and/or if there is a knowledge difference between group members. The material should be constructed to stimulate debate and give different points of view regarding the matter, rather than pronounce facts and clear arguments. Another question is whether the material should be sent out in advance, giving participants a chance to contemplate the subject for a few days, or if it should be handed out at the actual meeting.³⁵

My decision was to construct a material introducing the subject to some degree making sure that all participants had the same basic knowledge when beginning the discussion (the stimuli material can be found in appendix 2) and sending it out a week in advance giving group members some time to think about the subject. This is also the recommended procedure according to Wibeck.³⁶ The material only contained information on functional food not revealing anything about the other two topics of confectionary and functional confectionary that were going to be discussed. The main reason for this was that I, regarding confectionary, frankly did not believe that any additional information was needed. Concerning functional confectionary I wanted this part of the discussion to be somewhat of a surprise, which proved to be an effectual way to spark the discussion of this concluding topic.

The next decision is how the interview guide should be constructed. The recommendation is to use different kinds of questions for different stages of the discussion. For a structured

³⁵ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.66

³⁶ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod*

discussion five types of questions are recommended. To begin with some sort of “opening questions” are recommended to make sure that everyone knows each others names and getting people more comfortable. After that the “introductory questions” are recommended, introducing the subject of discussion and functioning as an ice-breaker, getting people started in the discussion. To bring the discussion forward “transition questions” can be used making group members see the issue at hand in a wider perspective and introducing new thoughts in relation to the topic and making group members find deeper meanings in their arguments. This brings the discussion to the “key questions” described as the most important queries treating the relevant topics. When the moderator senses that the discussion is coming to an end “concluding questions” can be put forward asking e.g. if anything has been missed or if there are any further additions to be made before finally ending the discussion.³⁷

As my discussion was built on two subjects and the subsequent integration of them, my interview guide got a somewhat different layout although following the general recommendations of the methodology literature. For each topic (functional food, confectionary and combination) introductory questions were asked followed by transition questions where I asked group members to explain why they had a certain opinion trying to make them deepen their argument. After this key questions followed. As every separate question was coming to an end, I as moderator, rounded of the topic by giving a short summary of the arguments put forward giving everyone a chance to get a final word in, before introducing the next subject. The idea behind the layout was to begin with functional food asking what they thought of in relation to the subject. Thereafter while having these ideas in mind confectionary was introduced asking the participants the same questions, although modified to confectionary. Finally the group members were asked to join the two subjects into one idea. This, as mentioned earlier, proved to be effectual, giving a spark to the discussion since the ideas from the two former subjects had given several interesting discussion points. Finally the discussion concerning functional confectionary, besides containing the same type of questions as in the two former, consisted of questions concerning different types of confectionary and different functions in confectionary. The ideas for the two last questions were collected from articles concerning functional confectionary where different types, now on the market in other countries, were presented. The different types of functional confectionary will be introduced in the functional confectionary section. The discussion guide can be found in appendix 1.

The role of the moderator during the discussions has been touched upon before and is here elaborated further. It is important for the moderator to keep as low a profile as possible not interrupting the discussion more than necessary. The moderator should show compassion and be understanding. It is also of importance to find a balance between encouraging discussion and not agreeing too much so that group members try to reach consensus with the moderator. Some sort of sense of when to cut of a discussion by introducing a new subject is needed. Furthermore how the introduction is made and in what manner, can reflect the entire discussion, not coming over as too formal or informal. To help the moderator an assistant can be used whose job is to make notes and not participate in the discussion but only to observe and aid in the debriefing after the discussion.³⁸

³⁷ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.61f

³⁸ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p. 73-78

Making sure that the same information was given to every group I used a preset introduction text (which can be seen at the top of the discussion guide in appendix 1). During the discussion I also tried not to show my opinion of a discussed matter in an attempt not to influence the participants. As an extra help I also used an assistant who, when available helped by making notes, that were helpful on some occasions when the work transcribing the material verbatim and the subsequent analysis was carried out, which I now will be explained more thoroughly.

2.4.4 Documenting and analysing the material

The recommended way of documentation of focus group discussions is that they should be either taped or video-recorded dependent of the purpose of the study. A recording of some kind is essential to make sure that the subsequent transcription can be carried out in a reliable manner. Other ways of recollecting what has been said during the meetings can be notes or simply memory based techniques which are not recommended if an accurate and thorough analysis is to be possible. The recommended procedures for making best use of the discussions is first to record the conversation at the meeting and then transcribe them verbatim. The actual transcription can be of different accuracy depending on the required exactness in; not just what was said, but also how it was said, by whom and to whom. Further descriptions of what stimuli triggered a person to say something or which tone of voice that was used can be described. Regarding market research it is stipulated that a transcription of the actual content of the discussion is sufficient for the subsequent analysis. The analysis of the transcribed material can begin as soon as the first focus group has been recorded and transcribed, although there is a risk that the future discussions may be tainted by information from the analysis as the moderator might use something recorded in an earlier discussion, thus threatening the validity of the study.³⁹ In this study the discussions were taped, as the object of research were more the matters discussed than observing different participants body language or facial expressions. I chose to transcribe at a higher degree of abstraction, not describing stimuli or tone of voice, as my main interest was of the actual things being said. The transcription and analysis of the material was done to some degree during the same time as the other discussions were conducted, but the main part was done afterwards not influencing the other discussions.

Analysing the material is the real challenge of the focus group technique. Coding the material and dividing it into smaller entities and trying to find trends and patterns are the main issues. It is important that the researcher can explain how and why results where reached. Making sure that the analysis is a systematic process, following a defined protocol where the choice of analysis units and criteria is explained, and leading to verifiable results.⁴⁰ Coding categories can include: questions, transitions, quoted sources, changes in opinion and moments of silence as participants may show their disbelief in a subject by staying silent. The analysis can be conducted *horizontally*, discussing what has been said in the different groups about the same issue and/or conducted *vertically* where the analysis is focused on what has been said in every

³⁹ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.79-98

⁴⁰ Wibeck, V. (1998) *Att arbeta med fokusgrupper* p.15

separate group not reflecting too much over other opinions.⁴¹ In this paper I will begin with making a vertical analysis as it will be of interest to see what has been said about the two subjects and the following combination of the two in each group. Thereafter I will compare opinions in different groups as this will give indications to consumers' choice of a functional confectionary. The analysis will follow the main questions used in the interview guide both during the vertical and horizontal analysis in this way aiding the reliability and validity of the study.

2.4.5 Summary – Pros and cons of the focus group technique

I will now summarize the discussion concerning focus groups pointing out the main benefits and drawbacks with the technique and further clarifying the reasons behind my choice. The drawbacks with the technique are that the material cannot be quantified and thus general conclusions cannot be made. Another risk is the researchers influence over the discussion as a moderator and in the interpretation of the gathered material influencing results with a subjective bias. When conducting the discussions there is always a risk of group-thinking with no conflicting arguments or total silence if participants feel uneasy about the subject. The main benefits of the technique are on the other hand the positive effects of holding a group discussion such as new ideas and ways of thought being presented and participants building on each others arguments reaching a higher level of discussion as they start to feel secure in the group. Spontaneity might be encouraged as the questions are not as guiding as in for example an in-depth interview.⁴² My choice of technique was based on my purpose and research questions, and as little research has been done in the field of functional confectionary, new leads were needed. The focus group aspects of group synergy such as new ideas and vivid discussions leading to new insights meant that the choice, for me, was obvious.

2.5 Secondary material

The secondary material consists of books, scientific articles, reports from different institutions in society and thesis' and other published materials from Universities. The main tools for gathering the material were ELIN and LOVISA, search engines administrated by Lund University, and LIBRIS a search engine for all available prints in Sweden. Further Internet search engines such as Google, AltaVista and Scirus were used to find information. Homepages and information from the Internet was treated as reliable if found backed by universities or governments although information from a single source was rarely accepted and most internet based information was double checked with an additional source. Additionally secondary sources such as scientific articles are seen as reliable but I have strived to find several sources within an area, thus improving the reliability by being able to cross check with different studies conducted by different researchers and in different parts of the world to get an as accurate image of the treated object as possible. I will round of with a few words on validity and reliability. Validity, to which degree the study actually captures the intended research objective, has been strived for e.g. with a large number of sources being able to cross check this study with earlier studies. The degree of reliability, reducing errors in

⁴¹ Wibeck, V. (2000) *Fokusgrupper: om fokuserade gruppintervjuer som undersökningsmetod* p.95ff

⁴² Malhotra, N.K. & Birks, D.F. (2003) *Marketing Research: An Applied Approach* p.162-163

the measurement, can always be questioned regarding qualitative studies. As mentioned earlier, I as moderator, tried not to interfere too much and to follow the same guide in every discussion making it possible to understand how the results from this study have been conceded, thus increasing reliability.⁴³

⁴³ Lundahl, U. & Skärvad, P-H. (1999) *Utredningsmetodik för samhällsvetare och ekonomer* p.150ff

3. The confectionary industry and sugar consumption

To introduce a reader, not earlier familiar with the confectionary industry, I will in this chapter begin with a short introduction of the main actors and trends in the sugar confectionary industry in Scandinavia. Thereafter a discussion regarding sugar consumption and the current debate on sugar will be introduced and its impact, or non-impact, on the consumption of confectionary, before finally a summary of the chapter is made.

3.1 The sugar confectionary industry

The branch of the confectionary industry that this paper especially focuses on is sugar confectionary which can be described as one of two major branches in confectionary manufacturing, the other being chocolate. Sugar confectionary is based on a starch, gelatine or rubber based compound with the addition of flavours and colors. The base is boiled, moulded in a flour bed, and dried, before the final touch of removing flour residue is performed by the addition of beeswax for a shiny finish.⁴⁴ Sugar confectionary is divided into three broad groups; *candy* with products such as jellied sweets and wine gums, *pastilles* including throat lozenges etc and *chewing gum* with or without sugar.⁴⁵

3.1.1 Sales volume and market share

During 2003 Swedes bought sweets for a total SEK 9.5bn⁴⁶ corresponding to approximately 17 kilos per person and year.⁴⁷ Grocery retail outlets accounted for 66 % of this figure and convenience stores for about 33%. The pick ‘n mix market situation in Sweden is quite unique but is growing in other parts of Scandinavian and was valued at SEK 2.5bn - 2.8bn in 2003. The total sales 2003 excluding pick ‘n mix was SEK 6.8bn, of this the three top selling categories were; chocolate which accounted for approximately 3bn, throat lozenges 0.83bn and sugar free chewing gum 0.79bn. The biggest gainers in the market during 2003 were in terms of sales: bubblegum increasing by a staggering 100% in terms of value, chewing gum with sugar increasing 38%, bars of chocolate with 15% and throat lozenges with 13%.⁴⁸

The sugar confectionary industry in Scandinavia is dominated by a number of large companies although there are differences concerning product groups and countries. In Sweden the major actor concerning *candy* and *pastilles* is MalacoLeaf with respectively 40 and 50% of the market, the runner up in the *candy* segment is Cloetta Fazer with 15% and regarding *pastilles* Vicks with 20%. In Denmark the situation concerning *candy* is dominated by the

⁴⁴ <http://www.malacoleaf.com/index.asp?lang=SE> accessed December, 2004

⁴⁵ AC Nielsen from anonymous industry source, November 2004

⁴⁶ Esmerk Butikens Värld (2004) "Sverige: Choklad populärast, bubbelgum ökar mest"

⁴⁷ Jordbruksstatistisk årsbok (2004) "Private final consumption of different foodstuffs and beverages"

⁴⁸ Esmerk Butikens Värld (2004) "Sverige: Choklad populärast, bubbelgum ökar mest"

German manufacture Haribo with 25% of the market, follow by MalacoLeaf with 20%. Regarding *pastilles* MalacoLeaf is the leading manufacturer followed by the Danish manufacturer Gajol. Regarding Norway the situation for *candy* is quite competitive with the four manufactures; MalacoLeaf, Galleberg, Brynild Group and Nidar, all at approximately 20%. The *pastilles* market is lead by MalacoLeaf at almost 30%; the runner up is Fishermans.⁴⁹

3.1.2 Trends and developments

As for many other parts of the food industry the increasing amount of private labels/brands are putting increasing pressure on the sugar confectionary industry. The impact is not on sales volume, but rather on the total value of the market with increased pressure on price.⁵⁰ Regarding different product groups the trend in the Scandinavian market is towards a higher degree of chocolate consumption and increasing sales of bubblegum. The sale of sugar confectionary in Sweden has stagnated over the last year and during 2004 sales have started to fall. The reason for this is believed to be the ongoing sugar debate and a reaction from retailers, in view of this aspect, by reducing the exposure of the sugar confectionary products in outlets, but as there are many other uncontrollable variables it is difficult to know the exact reason for the decrease. The product groups hit the hardest, in terms of volume, are; licorice and “allsorts” -15%, marmalade sweets -5% and sports and energy sweets -3%. However there are still some gainers among sugar confectionary such as; mixed sweets +15%, lollies +13% and chews +9%.⁵¹ In Norway a similar trend as in Sweden can be seen with increasing chocolate consumption.⁵²

3.2 Sugar

Sugar is the simplest form of carbohydrates and can be divided into mono- and disaccharides. Under these categories there are many different types of sugar but the most common in food are glucose, fructose, sucrose and lactose. Sugar and other types of carbohydrates (e.g. starch) contain about 4 kcal per gram which is half compared to the number of kcal in fat. In non fluent foods, such as bread or breakfast cereal, an increase of sugar at the cost of starch does not make a significant impact on the total energy intake. If instead fat is reduced and supplemented by sugar the energy intake reduces. On the other hand if sugar replaces dietary fiber the energy content increases. Therefore it is foremost in fluids that an increase in sugar leads to significant energy content increase. However, high energy content per se does not add to the body weight as long as there is a balance between intake and consumption of energy. As sugar is a source of energy excessive consumption leads to an unbalanced energy intake, besides that, sugar is not fattening. The body can although transform sugar into fat but this does seldom occur. The real danger is, as mentioned, sweet fluids which contain a high

⁴⁹ Anonymous industry source November 2004

⁵⁰ Anonymous industry source November 2004

⁵¹ Esmerk Butikens Värld (2004) ”Sverige: Choklad populärast, bubbelgum ökar mest”

⁵² Esmerk Dagsavisen (2004) ”Spiser 26 370 ton sjokolade”

amount of energy without giving a sense of saturation, thus leading to over consumption of energy.⁵³

Concerning diseases the fact that a high intake of sweets increases the risk for caries is concluded, but other factors such as general dental hygiene is also a variable to consider. That sugar is the factor behind other conditions or diseases has not been studied enough to arrive at any decisive conclusions. That sugar is addictive has not yet been studied on humans. However in a study on rats the production of the signal substance dopamine, which leads to increased sugar consumption, was found, although more studies have to be done before any conclusive solutions can be drawn. The difference between added sugar and sugar naturally occurring in food products, like fruits, milk, grains etc, is that the added sugar only contains energy, as the natural food products containing sugar also contains minerals, vitamins and dietary fibers. High consumption of products containing added sugar leads to a dilution of the nutrient intake, which is why it is important to reduce the intake of added sugar. The general recommendation in Sweden is that the intake of purified sugar should be limited to less than 10% of the total food consumption per day, for a female with a low activity level this equals 55 grams per day.⁵⁴

3.2.1 How much sugar do we eat and where does it come from?

Of the total food consumption in Sweden during 2003 8% consisted of sugar, jam and confectionary, according to statistics from the Swedish Board of Agriculture.⁵⁵

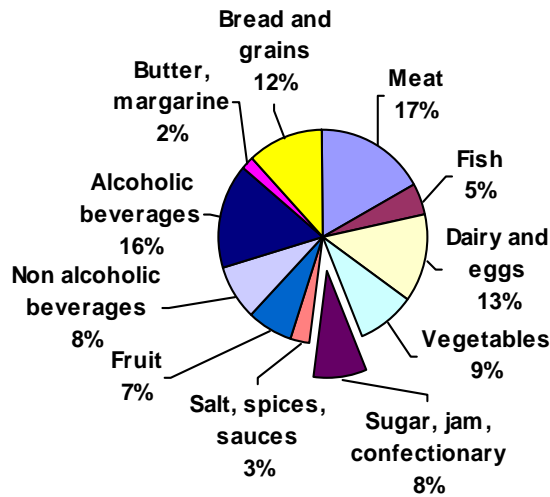


Fig. 3.1 Food consumption in Sweden 2003⁵⁶

⁵³ Bryngelsson, S. (2004) *Faktablad Socker*, SNF

⁵⁴ Bryngelsson, S. (2004) *Faktablad Socker*, SNF

⁵⁵ *Jordbruksstatistisk årsbok* (2004)

⁵⁶ Modified after: *Jordbruksstatistisk årsbok* (2004)

According to statistics from The Swedish Board of Agriculture compiled by Jälminger the total consumption of sugar in Scandinavia during the last 35 years have been more or less consistent with the consumption in Sweden between 40 and 45 kilos per person and year. Looking at where the sugar consumed comes from; 70% is sugar in food products and 30% is from sugar, honey and syrup that are added by consumers themselves.⁵⁷ According to statistics from the National Food Administration in Sweden about 15 to 20% of the energy intake, for an average Swede, comes from foods high in both sugar *and* fat such as pastries, confectionary and soft-drinks, but low in vitamins and other nutritives.⁵⁸ The changes in consumption pattern can rather be seen in the consumption of sweetened food products were there has been a dramatic increase in the consumption of soft drinks compared to moderate changes in the other product groups of (from the top down) juice and fruit-syrup, confectionary, ice cream, and jams and sauces) as indicated by figure 4.3. The changes in consumption pattern is also confirmed by statistics over the direct consumption of different types of sweeteners such as, sugar lumps decreasing from just over four kilos per year to in 1980 to just below two kilos per capita and year in 2000.⁵⁹

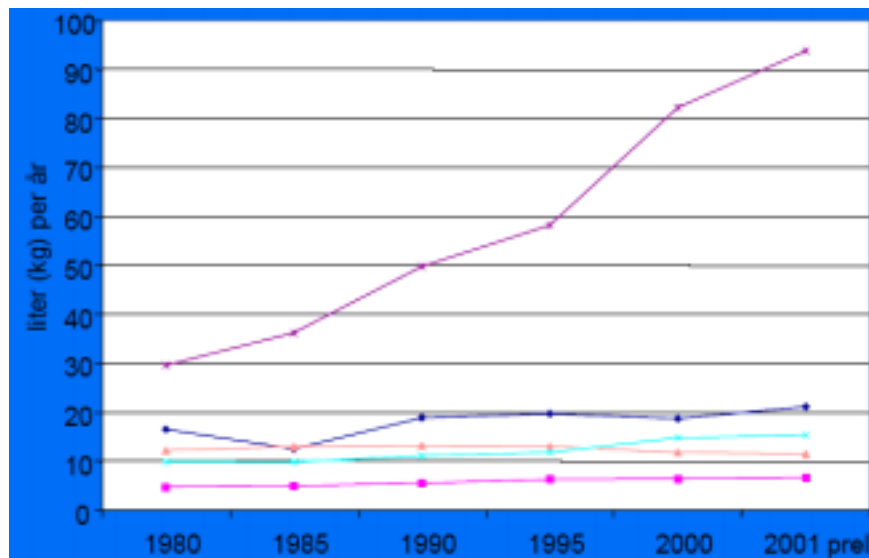


Fig. 3.2 Direct consumption of sweetened food products ⁶⁰

3.2.2 Consumption of confectionary

Looking at the consumption of confectionary (figure 3.3) there has been an increase over the last years. Two major studies have been conducted in recent time on consumption habits in Sweden concerning sugar. The study carried out in 1989 called “Hulk”, in the chart below with the consistently shorter graphs next to the longer ones, included 2000 individuals and indicates higher intake the younger a person is for both females (to the right) and males (to the left). The longer graphs is from a study carried out during 1997-98 called “Riksmaten” and

⁵⁷ The Swedish Board of Agriculture (2003) Hur mycket socker äter vi?

⁵⁸ Torelm, I. (2004) ”Mer socker – mindre transfett i kaffebröd”

⁵⁹ Jälminger, A-K (2004) *Socker i Siffror*

⁶⁰ Jälminger, A-K (2004) *Socker i Siffror*

indicates a strong increase in consumption of confectionary for all age groups with almost twice the amount being consumed. Interesting to note is the higher consumption for women (to the right) compared with men.

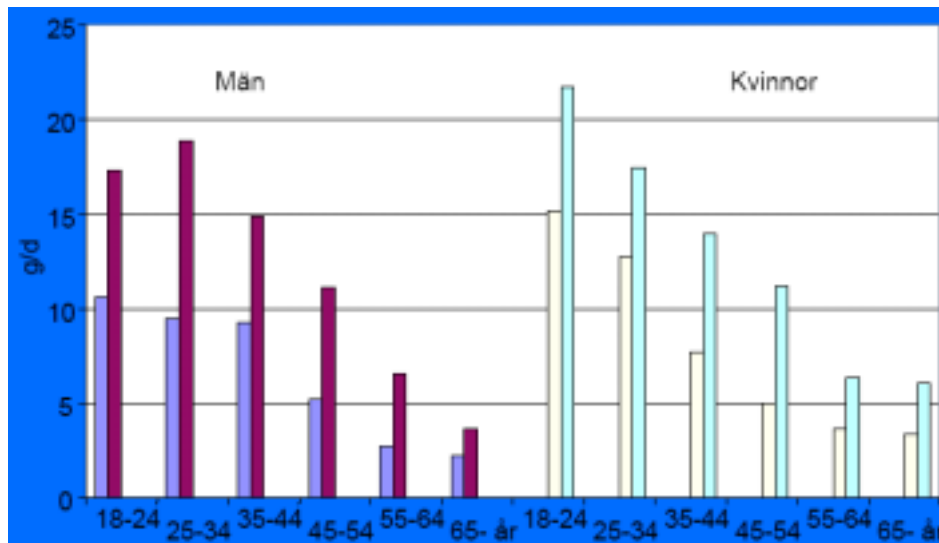


Fig. 3.3 Consumption of Confectionary in Sweden ⁶¹

According to more recent statistics from the National consensus Bureau the consumption of confectionary does not follow the available income, rather households with lower income spend relatively more on confectionary than households with higher incomes. ⁶²

3.2.3 The sugar debate and the impact on the food industry

The debate on sugar has been far from nuanced in Scandinavia in general and in Sweden in particular where, according to the statistics publicized by Observer 1300 articles have been publicized over the last year with “strongly negative publicity” concerning sugar. A more balanced debate in neighbouring Denmark and Finland is addressing other reasons behind obesity and overweight rather than just focusing on the energy intake from sugar. ⁶³ There are however, like in many discussions, different points of view. One of the most critical opinions against sugar comes from Jonna Deibjerg a Danish dietary adviser. According to Deibjerg children get addicted to sweet food during their childhood and adolescence affecting them by reduced stamina and bad temper, also influencing their food consumption as adults. According to her opinion there are massive market forces trying to get us to eat more sugar, such as that of the confectionary and soft-drink industries. ⁶⁴ A similar idea is presented by Professor Stephan Rössner at Karolinska Institutet, saying that the question of sugar in food is as much a political as it is a nutritive question. According to the professor, children are the

⁶¹ Riksmaten 1997-1998 and Hulk 1989 compiled by The Swedish National Food Administration in Jälminger, A-K (2004) *Socker i Siffror*

⁶² SCB, Enheten för Ekonomisk välfärd (2004) *Hushållens utgifter (HUT)*

⁶³ *Observer* via anonymous industry source November 2004

⁶⁴ Renntun, E. (2001) ”Barnen mår illa av allt socker”

main target for the sugar lobby, referring to the situation in the US, where product placement by food companies in schools is common, leading to funding of facility restorations and new books. This is seen as alarming since children, being the consumers of the future, already are strongly committed to brands high in sugar and fat.⁶⁵

A somewhat contradictory conclusion was reached at the forum “Addicted and fat by Sugar” held by the Swedish Nutrition Foundation (SNF) in April 2004. The meeting came to the conclusion that addiction to sugar can not be concluded and that more research is needed and that the recommendation to the consumers should be to limit the amount of unnecessary calories by reducing the intake of products high in sugar *and* fat.⁶⁶ This idea is agreed upon by the Swedish National Food Administration stating that reduction of food containing “empty calories” such as; soft drinks, cakes, pastries and sweets is a good start, however no single diet method has proven really effective, rather it is believed that long term and consistent change of food habits *and physical activity* is the foundation to maintain a healthy bodyweight.⁶⁷ The necessity of both exercise and a health diet is not a new idea as it was promoted already during the 1960s in the first joint effort in Sweden for better diet and exercise habits under the slogan “Kost och Motion” (diet and exercise). Public health nutrition is also defined as “to promote health and prevent diseases through good diet and physical activity” [translated from a Swedish quote].⁶⁸

How the debate has affected the sale of sugar confectionary is, according to an industry source (wishing to stay anonymous), difficult to say. However it is clear that the debate has had an impact on consumers’ perception of sugar, but how this has affected sales figures is difficult to say, since there are a number of influences that have to be accounted for. According to the same source, sugar can be seen as an honest ingredient since the consumer knows what he/she is buying. Further the usage of confectionary as an energy boost and a short time of delight is still a fact among many consumers and is a habit that dies slow, even under the impact of the current debate. The same source also states that other product groups are affected even harder than confectionary by the debate, e.g. yogurts and breakfast cereals. The trend is although not completely consistent with some product groups, rich in sugar, still gaining in the market such as chocolate and soft drinks.⁶⁹

3.3 Summary

Confectionary has been around for a long time and has consequently branched into the two major groups of sugar confectionary and chocolate. The market situation in Scandinavia for sugar confectionary regarding candy is dominated in Sweden by MalacoLeaf, in Denmark by Haribo and by several actors in Norway, concerning pastilles MalacoLeaf is the dominating actor. Sales in some areas have begun to slump over the last year but are gaining in others. As

⁶⁵ Rössner, S. (2004) ”Socker i maten – näringslära eller politik?”

⁶⁶ Reuterswärd Laser, A. (2004) ”Kan man bli fet av socker?”

⁶⁷ The Swedish Board of Agriculture (2003) “Hur mycket socker äter vi?”

⁶⁸ Lindvall, C. (2001) ”Information räcker inte för att ändra mat- och motionsvanor”

⁶⁹ Anonymous industry source November, 2004

evident by statistics the total sugar consumption has not increased over the last 35 years in any of the Scandinavian countries, rather a slump can be seen in some. However the consumption has been redistributed from sweeteners added directly to food products high in sugar. The major increase over the last 20 years can be seen in soft-drinks although confectionary also has made considerable gains over the same period. The debate concerning sugar raging Scandinavia in general and Sweden in particular is not completely balanced as the majority of publicity is negative. However nuances can be seen as articles and information e.g. coming from the National Food Administration pointing at the fact that nutrition *and exercise* is the key to keeping the body in balance. The discussion that sugar is addictive has not been scientifically proven and more research is needed in this field. Further it can be said that the general recommendation to the consumer is to reduce the consumption of both sugar *and fat* as these products dilutes the nutritive value of the diet concerning e.g. vitamins. The second general recommendation is to exercise regularly making sure that a balance is found in the energy intake to stay healthy. Concerning the implication for the sugar confectionary industry the addition of vitamins and minerals to products can be a way to increase the nutritive value however the question is whether the consumers will buy it or not, as will be discussed in the chapter describing the results from the empirical findings.

4. Functional Food

In this chapter different definitions and codes concerning functional food, health claims in food and related terms will be presented beginning with a short recapitulation of the historical background influencing the situation in Europe today. Thereafter functional confectionary will be presented as well as trends supporting functional food and functional confectionary.

4.1 Introduction

The idea of food being more than just something we ingest to satisfy our hunger has been around for ages, maybe beginning with the well known words by Hippocrates “Let your food be thy medicine and thy medicine your food”. Even though the idea has existed for a long time, the modern concept of functional food began to evolve during the 1980s in Japan. This was primarily due to an increasing interest in health, raising costs for health care due to increases in chronic diseases and the fact that people in general lived longer. Additionally the climate and tradition in Japan benefited the usage of micro organisms in food production.⁷⁰ The origin of the term *functional food* in Europe can be traced back to a visit by a group of Japanese scientist and businessmen traveling around and introducing the concept in 1991.⁷¹ Today the concept has spread and several products have been introduced however a number of problems especially concerning common rules on definitions and regulations still remain.

4.2 Definitions of functional food

Due to lack of a definition of functional food outside Asia, the number of definitions are many. According to Hunt a terminology commonly used in European countries for defining functional food is “ ‘foods sold for health benefits’ or ‘processed foods defined by the main functional ingredient (oligosaccharides, fibres, minerals, etc.) that are claimed to perform specific health roles such as preventing, treating and curing various diseases, and which fall into a category somewhere between food, dietary supplements and drugs’ “. ⁷² Additionally Roberfroid provides a number of definitions, including “ ‘foods that may provide health benefits beyond basic nutrition’ ” and other more complex such as “ ‘food that encompasses potentially helpful products, including any modified food or food ingredient that may provide a health benefit beyond that of the traditional nutrient it contains’ “ and “ ‘food similar in appearance to conventional food that is intended to be consumed as part of a normal diet, but has been modified to sub-serve physiological roles beyond the provision of simple nutrient requirements’ “. ⁷³ In a study conducted by van Kleef at al functional foods were defined as a concept consisting of three dimensions “carriers (e.g. food products or pills), functional

⁷⁰ Hammerling, U & Larsson, M (2000) ”Mat för hälsa och långt liv?”

⁷¹ Ibid.

⁷² Hunt (1994) in Bhaskaran, S. & Hardley, F. (2002) “Buyer beliefs, attitudes and behaviour: foods with therapeutic claims”

⁷³ Roberfroid (2000) in Frewer, F. et al (2003) “Consumer acceptance of functional foods: issues for the future”

ingredients (e.g. vitamin D) and health claims (e.g. ‘reduces the risk of heart diseases’).⁷⁴ According to Norbelie functional foods are food products that besides contributing with nutritives have a specific and documented physiological, health benefiting or performance enhancing effect.⁷⁵ The definition provided by the Swedish company Probi is “Food that has been enriched with one or more ingredients with a beneficial health effect, in addition to the product’s normal nutritional value”.⁷⁶ Mark-Herbert’s and Nyström’s definition simply states “functional food is a food product that has been developed and manufactured or modified to have special impact on physiological functions”.⁷⁷

However despite the vast number of definitions three arguments seem to be more or less agreed upon when defining functional food:

- it is a food product, thus not a pill or powder
- it provides a physiological benefit besides the normal nutrition
- the products can be consumed as a part of a normal diet

Besides functional food there are a number of other terms, some with almost similar connotation which now will be defined, in order to specify functional food in relation to other products on the market today.

Novel foods: food not before consumed within the EC, especially food extracted from microorganisms, bacteria or fungus, genetically modified food, or food developed by a new production process.⁷⁸

Smart food: products containing some sort of additive such as vitamins or minerals, often marketed in a similar way as functional food making a distinction difficult for consumers. Smart food is often seen as similar to functional food.⁷⁹

Fortified foods: food with added minerals and/or vitamins.⁸⁰

Dietary supplements: contains minerals and vitamins and the carriers are pills or powders. It can not contain any form of energy and is consumed to provide a health benefit.⁸¹

⁷⁴ van Kleef, E. et al (2002) “Consumer oriented functional food development” p.95

⁷⁵ Norbelie, B. (2000) ”Funktionella Livsmedel”

⁷⁶ <http://www.probi.com/> accessed December, 2004

⁷⁷ Mark-Hebert, C. et al (1993) *Functional Food i Sverige* p.2

⁷⁸ Frank, J. et al (2001) *Functional Foods God hälsa - igår, idag, imorgon?* p.25

⁷⁹ *ibid.*

⁸⁰ Asp, N-G. et al (2004) “Probiotics in gastric and intestinal disorders as functional food and medicine”

⁸¹ Asp, N-G. et al (2004) “Probiotics in gastric and intestinal disorders as functional food and medicine”

Mervärde: is the Swedish alternative term for *functional food* and is an abbreviation of the Swedish phrase *mer värde än näringsvärde* roughly translated to *more value than nutritional value*.⁸²

Food for particular nutritional purposes (PARNUT): “are foods that differ clearly from other foods due to their particular composition (or special manufacturing process), are suited to the nutritional applications claimed, and which are marketed such that this suitability is conveyed (SLVFS 2000:14)”. These foods can not be marketed claiming or implying an ability to prevent, treat or cure diseases according to the 10 paragraph of the same legislation.⁸³

Natural remedies: the requirement for this type of product is that the active ingredient originates from; a plant or an animal, bacterial culture, salt or salt solution. This type of product is to be suitable for self treatment of medical conditions in line with domestic tradition in Sweden or countries similar to Sweden. Approved natural remedies may be sold outside pharmacies.⁸⁴

Foods for special medical purposes: are products developed especially for patients with specific nutritive demands in their diet which can not be satisfied through “normal” food. The product is to be clearly labelled stating the proper amount to be ingested in relation to the specific condition being addressed and is to be managed by a physician or nutritionist. The product must be tested in the same manner as regular drugs proving their effect and safety.⁸⁵ Figure 4.1 summarizes the terms in a more schematic way.

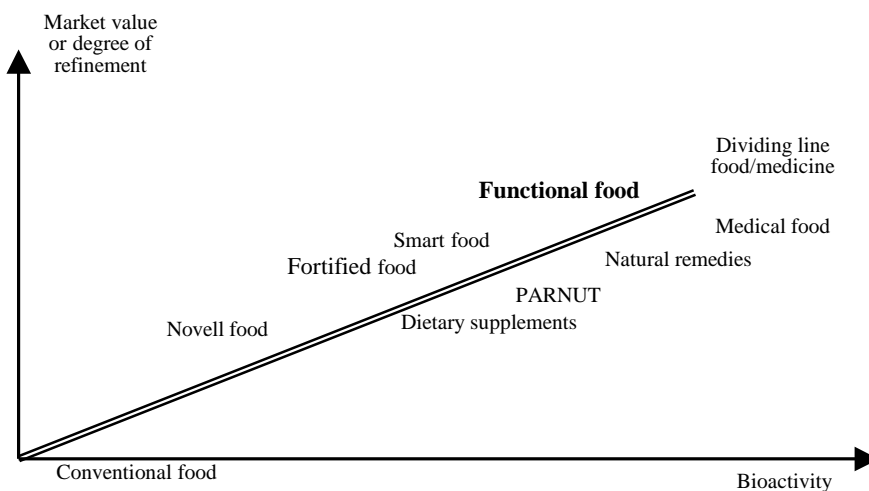


Fig. 4.1 Functional food in relation to other associated terms⁸⁶

⁸² Larsson, M. (2000) "Gillar mat som ger mervärde"

⁸³ SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*, p.6

⁸⁴ *ibid.*

⁸⁵ SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*, p.7

⁸⁶ Modified after Hed, F. (2000) "Funkismat har svårt att rocka loss"

4.3 Regulations and codes

One of the few places in the world where legislation concerning functional food exists is Japan. Therefore I will begin with a short introduction of their system as it may influence future international legislation, on the way, from the EC and Codex Alimentarius (WHO) towards a common code for functional food.⁸⁷

4.3.1 Japan

Japan has had legislation concerning functional food since 1991. FoSHU (Food for Specified Health Uses), as functional food is called in Japan, is a part of the Nutrition Improvement Law controlling functional products pre market release. The legislation has been reformed in several steps and in 2001 the system was changed with the main header of FHC (Food with Health Claims) with the two subcategories of FoSHU and the new, FNFC (Food with Nutrient Function Claims). To pass a product as FoSHU test results proving safety, quality and intended health benefits must be verified with scientific data, including results from human testing. The FNFC is a new area with a softer approach to vitamins, minerals and herbs and instead working as a regulatory system based on standards set by the health ministry, products in this area are not subject to testing before market introduction. However according to Saito the majority of foods with dietary supplements are not sold under the framework of FHC.⁸⁸ Figure 5.2 summarizes the system in Japan.

| | | | |
|-----------------------------------|--|---|--|
| Drug (including quasi-drug) | FHC | | Other Food (including the majority of dietary supplements) |
| | FoSHU Product-by-product approval system | FNFC Regulation system based on standards | |

Fig. 4.2 Classification of foods with specific Health Claims in Japan⁸⁹

4.3.2 The European Union

As mentioned earlier there is no law or code defining functional food within the EC. However due to increasing interest in the idea and concept of functional food and food with different health claims, the EC set up a European commission concerted action on **Functional Food Science in Europe (FUFOSE)**.⁹⁰ According to results from which two types of health claims relevant to functional foods are supported:

- The first is **Type A: “Enhanced Function”** including claims that refer to specific psychological functions and biological activities beyond their established role in

⁸⁷SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*, p.8

⁸⁸ Saito, Y. (2003) *Japanese consumer behaviour: health as a marketing ingredient*

⁸⁹ *ibid.*

⁹⁰ http://www.eufic.org/en/quickfacts/functional_foods.htm, accessed November, 2004

growth, development and other normal functions of the body. A claim of this nature makes no reference to diseases.

- The second is **Type B: “Reduction of Disease Risk”** including claims that relate to the consumption of a food or food component that might help to reduce the risk of a specific disease or condition because of specific nutrients or non-nutrients contained within.⁹¹

To implement the conclusions of FUFOSE the European Commission set up a second Concerted Action program for this task called the Process for the Assessment of Scientific Support for Claims on Foods (PASSCLAIM). Which aims to resolve some of the ongoing issues of validation, scientific substantiation of claims and communication to the consumer; however their report has not yet been released?⁹²

4.3.3 Sweden

There is no legal definition of functional food in Sweden. However some guidance can be found in paragraphs of the Swedish law where food and medical products are defined.

According to the Swedish Food Act (SFS 1971:511) *food* is defined as “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.” *Medicinal product* is defined as “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).”⁹³

In Sweden the products intended usage can be indicated through marketing, but other factors such as; product name, usage in folk medicine, appearance and dosage instructions, are of importance for the classification. To be able to market food products with health claims in Sweden the Medical Products Division of the National Board of Health and Welfare decided that the law applicable to drugs should not include products readily found on the dinner table. To regulate claims made regarding health in food products a voluntary code has been developed by the industry called *Health claims in labelling and marketing of food products* (Hälsopåståenden i märkning och marknadsföring av livsmedel) first introduced in 1990, with several revisions, the latest in 2004,⁹⁴ according to which food items can be labeled and marketed according to a two step principal, which now will be explained more thoroughly.

⁹¹ http://www.eufic.org/en/quickfacts/functional_foods.htm, accessed November, 2004

⁹² *ibid.*

⁹³ SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*

⁹⁴ *ibid.*

Nutrient and Health claims in Sweden

- *Nutrient claims* are regulated by the Swedish National Food Administration and are defined as: “...any representation that states, suggests or implies that a food has particular nutritional properties with respect to the energy it provides, provides in reduced or increased amounts, or does not provide; or regarding the nutrients it contains, contains in reduced or increased proportions, or does not contain.”⁹⁵
- *Health claims* on the other hand, are not subject to regulation in legislation but rather to regulation via the voluntary code, and are: “any representation that states, suggests or implies a connection between a food, a category of foods, or a constituent of a food, and health, performance or wellbeing”.⁹⁶

In Sweden there are different health claims that can be presented concerning food. First of all there are *generic health claims* which can be divided into two parts:

1. *Nutrient health claims* can be made in relation to generally accepted physiological function of a nutrient in relation to growth and normal bodily functions, but not regarding diseases. Further only claims related to the Swedish market can be made.⁹⁷

An example of such a claim could be:

*Vitamin-C helps in the absorption of iron. Product Y contains Vitamin-C.*⁹⁸

2. A *generic reduction of disease risk claim* can be made in nine cases in Sweden and are to be made according to *the two step principal*. The first step explaining the relation between diet and diet related diseases while the second step explains the content of the product. The information is to be given separately but in conjunction to one another. The nine approved health claims are:
 1. Overweight/obesity – *Energy content*
 2. Cardiovascular disease/atherosclerosis/blood cholesterol levels – *hard fat* (low count) and certain types of *dietary fiber* (beta-glukan from oat)
 3. Cardiovascular disease/atherosclerosis – *Salt*
 4. Cardiovascular disease/atherosclerosis/hardening of the arteries – *Omega-3 fatty acids*
 5. Constipation – *Dietary fibers*
 6. Osteoporosis – *Calcium and/or Vitamin D*
 7. Caries – *Sugar/fermentable carbohydrates* (absence of)
 8. Iron deficiency – *Iron*
 9. Coronary heart disease – *Whole grain*

⁹⁵ SLVS 1993:21 in SNF (2004) *Health Claims in the Labelling and Marketing of Food Products* p.7

⁹⁶ *ibid.*

⁹⁷ SNF (2004) *Health Claims in the Labelling and Marketing of Food Products* p.8

⁹⁸ <http://www.snf.ideon.se/allm/index.html>, accessed November 2004

An appropriate way to make these claims according to the two step principal is:

*A nutritious diet rich in fibres is important to keep the stomach in shape and to reduce the risk of indigestion. Product X is rich in fibres.*⁹⁹

A *product-specific physiological claim* (PFP in Swedish) is the second type of health claim and is the “real” functional food in Sweden and is subject to much more extensive testing. If a producer wishes to use a *new claim related to a specific product* this needs to be tested before a launch with regards to the specific effect of an ingredient or function of the product. The pre-market evaluation of scientific claims planned to be used, is performed by the Swedish Nutrition Foundation (SNF) in accordance with the code. Complaints regarding PFP products is tested by the Assessment Board for diet-health Information (abbreviated BKH in Swedish) also a part of SNF. Figure 4.3 summarizes the different types of claims and how a claim can be made.

| | |
|---|---|
| Nutrition claim* | Contains calcium |
| Nutrient functional claim** | Calcium helps to build bones. Product X contains calcium. |
| Generic reduction of disease risk claim** | A nutritionally balanced diet high in calcium and vitamin D helps to reduce the risk of osteoporosis. Product Y is high in calcium. |
| Product-specific physiological claim** | Product Z helps to increase calcium absorption and thereby to improve building of bones. |

* Regulated by National Food Administration (SLVFS 1993:21)

** Covered by the Code

Fig. 4.3 Nutrient and health claims in Sweden¹⁰⁰

So far only five products have been approved by SNF as PFP products, these are:

1. *Julia/Hjärtans Lust* margarine cheese based on rape-oil, Skånemejerier
Specific health claim: aiding to lower cholesterol levels
2. *ProViva* fruit drink and shot with *Lactobacillus plantarum 299v*, Skånemejerier
Specific health claim: reduces gas and calms the stomach
3. *Becel pro.activ* margarine, Unilever Bestfoods Inc.
Specific health claim: lowering total cholesterol
4. *Becel pro.active* milk drink, Unilever Bestfoods Inc.
Specific health claim: lowers total and LDL cholesterol
5. *Primaliv* yogurt with muesli, Skånemejerier
Specific health claim: evens the blood sugar level after a meal

⁹⁹ <http://www.snf.ideon.se>, accessed November, 2004

¹⁰⁰ SNF (2004) *Health Claims in the Labelling and Marketing of Food Products*, p.8

PFP products approved by SNF have the right to use the logotype in figure 4.4.



Fig. 4.4 The official PFP symbol in Sweden¹⁰¹

4.4 Functional confectionary

Functional food has also reached the confectionary industry and a number of major areas of development can be seen, especially on the American market. Regarding different types of claims, as many as 37%, are related to *gastrointestinal health issues*. This is in line with the major trends in functional food when looking at leading markets such as Japan. The second largest segment is *cholesterol-control* with 26%. In third position is *disease resistance and immune system improvement* with approximately 23% of the total functional confectionary market¹⁰² including *fortified sweets* such as; hard candy, chewing gum and gummy bears fortified with vitamins, minerals, Echinacea or ginseng, with treatment and prevention of colds, as prime selling argument.¹⁰³ Other areas of development include *energizing candies* where examples include sweets high in guarana or caffeine¹⁰⁴ such as caffeinated peppermints¹⁰⁵ or chewing gums with imaginative names such as “Stay Alert”.¹⁰⁶ There is also confectionary with the opposite effect helping you *improve your sleep*.

Concerning *different types of confectionary* functions are available in chocolate bars, chewing gum, hard candy and wine gums. In bars of chocolate ingredients boosting energy, memory, serenity and passion can be found. The gum racks are filled with functional ingredients delivering caries prevention, vitamins, caffeine “Stay Alert”, ginseng for better love-life called “Love Gum”, cold fighting claims “Zinc Gum”, and memory boosting “Brain Gum”. Concerning *functional confectionaries share of total confectionary sales* it was estimated in 1998 that the European functional confectionary sales ranged from 1.2% of total confectionery sales in the U.K. and Italy and to 7.3% in Germany. The National Confectioners Association estimated the total U.S. retail sales of confections at \$23 billion in 1998 functional confectionary’s portion was approximated between \$280 million and \$1.7 billion. Regarding 2003 it was projected that functional confectionaries’ share of total confectionery sales would range from 4.2 % in Italy to 12.1 % in Germany. Concerning the

¹⁰¹ <http://www.snf.ideon.se>, accessed November, 2004

¹⁰² Vreeland, C.C. (1999) “Nutraceuticals Fuel Confectionery Growth”

¹⁰³ Sloan, E.A. (2002) “The Top 10 Functional Food Trends: The Next Generation”

¹⁰⁴ *ibid.*

¹⁰⁵ Anonymous (1998), “Candy and Coffee are the new Health Foods? We Wish”

¹⁰⁶ Vreeland, C.C. (1999) “Nutraceuticals Fuel Confectionery Growth”

US the sales of confectionery 2003 was \$27 billion, with functional confectionary accounting for an estimated \$1.1 to \$3.3 billion.¹⁰⁷

4.5 Trends and developments

According to Reuters Business Insight the three major trends, that are going to be increasingly important when it comes to overall consumer demand and the future of the food and drinks industry, are a combination of; convenience, health and pleasure. Functional food can be seen as a spin-off from these three mega trends.¹⁰⁸ Figure 4.5 summarizes these trends.

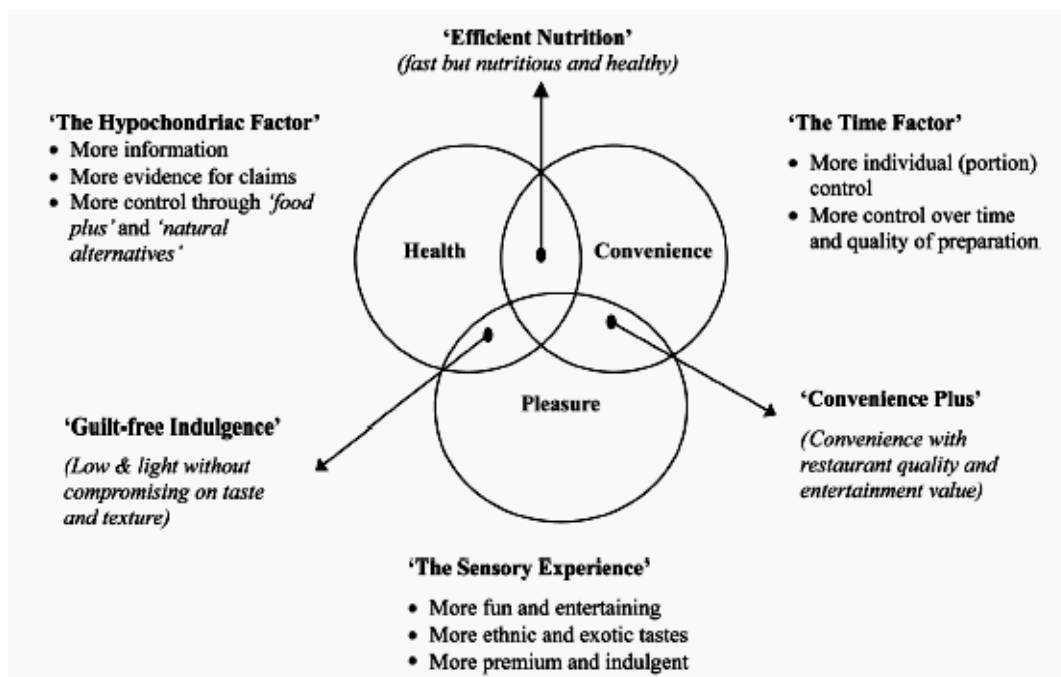


Fig. 4.5 The three main forces influencing food choice in the next century¹⁰⁹

The fastest growing segment when it came to foods related to wellness during 2003, in America, was according to Reuters Business Insight; snack and granola bars, diet candy, sugar substitutes and sports and energy drinks fuelled by the low-carb debate raging the country. Product groups with strongly increasing sales are sugar free confectionaries including examples such as Hershey's sugar free chocolate.¹¹⁰ According to even more recent estimates from Reuters Business Insight functional food will be the most successful health food in the next decade. According to Reuters the most successful segments will be functional drinks, low-calorie and low fat food. Further products positioned towards seniors especially with anti-ageing functions will be successful. The other segment believed to have a bright

¹⁰⁷ Vreeland, C.C. (1999) "Nutraceuticals Fuel Confectionery Growth"

¹⁰⁸ Reuters Business Insight (2000) in Gray, J. et al (2003) "Opportunities and constraints in the functional food market", p.215

¹⁰⁹ *ibid.*

¹¹⁰ Howell, D. (2004) "Wellness trend touches all categories"

future is “children’s own” where the ultimate product would be healthy, loved by children as well as parents, and eaten in the same amount as crisps or chocolate bars.¹¹¹ According to Gary et al there are several possibilities associated with functional food in today’s society and in the future. Demographic changes with an aging population and increasing medical costs in most western societies will probably make the interest in functional food grow even stronger.¹¹² Looking into the future the baby-boomers are retiring over the next decade and are looking forward to an active life after retirement, which probably will increase consumers’ interest for functional food even more.¹¹³ Figure 4.5 summarizes the consumer trends driving demand for functional food.

| Consumer trends | Implications |
|---------------------------------------|---|
| Ageing population | Increased life expectancy |
| Demand on health services | Increased economic burden |
| Awareness of diet/health relationship | Increased demand for healthier food |
| | Increased interest in products that may reduce the symptoms of ageing |
| Proactive about health | Increased demand for products which will prevent disease |

Fig. 4.5 Consumer trends driving demand for functional food ¹¹⁴

Concerning growth rate of the market for functional food US and Europe were estimated at between 15 and 20% during the last years of the 1990s. Despite this fast growth rate the total share for functional products in the food market is still quite small e.g. approximately 3.7 % for functional products of total dairy sales in the UK. The same figure in the US was 5.2 %. Functional beverages had a slightly higher market share in both markets.¹¹⁵ Additionally it is projected that the market for functional food in Europe will be worth between SEK 25 and 50 billion with a growth rate of approximately 20% per year, thus 20 times the rate for the rest of the food industry.¹¹⁶

The trendsetting country in the functional food market is Japan. The development began with dietary fiber drinks and the development was weak in the early years but has gained momentum over the last years after the entry of the major food manufactures into the area. At the end of 2002 there were 339 FoSHU products on the Japanese market with roughly 60 new products being introduced every year over the last four years. There have been six main areas of development within functional food in Japan¹¹⁷:

¹¹¹ Reuters Business Insight, in Starling, S. (2004) “Bright future predicted for functional foods”

¹¹² Gray, J. et al (2003) “Opportunities and constraints in the functional food market”, p.215

¹¹³ Goldberg, I. (1994), in Kilsby, T. & Nyström, H. (1998) *Utveckling och marknadsföring av nya svenska livsmedel med medicinsk effekt (functional food)* p.12

¹¹⁴ Goldberg (1994); Rebuk et al (1995); ADA (1998) & Promar International (2000) in Gray, J. et al (2003) “Opportunities and constraints in the functional food market”

¹¹⁵ Euromonitor (2000) in Frewer, L. et al (2003) “Consumer acceptance of functional foods: issues for the future

¹¹⁶ www.proviva.com, accessed January, 2005

¹¹⁷ Saito, Y. (2003) *Japanese consumer behaviour: health as a marketing ingredient*

1. products that help to *maintain good gastro-intestinal condition*, additives such as; lactobacillus and dietary fibres are used here.
2. products with *cholesterol regulating effects* including ingredients such as; peptides, soy protein diacylglycerol and stansols.
3. products addressing *high blood pressure* ingredients here; peptides and glycosides.
4. products aiding in the absorption of *calcium*.
5. products suitable for people with *high blood glucose* again dietary fibre is used along with; albumin, Polyphenols and L-Arbeinose.
6. products helping in the upholding of strong and healthy teeth, ingredients such as; Xylitol, Polyols and Tea Polyphenols are used here.

Gastro-intestinal products are the most popular (54%) of the total market followed by cholesterol regulating (16%) and glucose regulating products (10%).

Further Sloan (2002) addresses ten areas of future growth within the functional food industry.¹¹⁸ The trends are from an American point of view and might not be as useful on the much smaller Scandinavian market however they indicate some interesting future opportunities. The ten future trends are believed to be:

1. *Nutrient and special fortification* in broader product groups with *vitamins and minerals* as the main ingredients.
2. *Condition specific marketing* of food products, addressing a certain area, with special focus on heart issues and prevention of disease. Conditions include; *coronary symptoms, cholesterol, cancer prevention, high blood pressure, weight control and diabetes*. Additionally *energy provision, improved attention and mental function* could be of interest.
3. *Lifestyle enhancers*. A healthy lifestyle is increasingly gaining ground in several areas of society. Potential is seen in; energy, immunity improvers, stress relievers and sleep improvers, said to be well suited for the candy industry as ingredients with stress relieving effects can be combined with the stress relieving action of chewing on a gum or sugar confectionary candy.
4. *Sports Market Crossover with recovery supplements, quick weight loss and long and short term energy* as the main gainers including products such as; bars, powders and beverages. This is believed to be a growing segment due to the increasing interest for fitness, especially among baby-boomers.
5. *Kids' health* is seen as the fifth potential growth area, with the fortified segment diversified towards kids. Sloan (2002) regards this as one of the, so far, unexploited "mass markets" for food manufactures.
6. *Gender, Age and Ethnic positioning* is also believed to be a future market with differentiation into more and narrower segments addressing specific conditions for different ethnic groups. The possibility of age segmentation has already been mentioned under *Kids' health* and is seen as a major opportunity. For example in the

¹¹⁸ Sloan, E.A. (2002) "The Top 10 Functional Food Trends: The Next Generation"

Swedish pharmacies dietary supplements called “MittVal” are diversified into seven different categories ranging from kids to 55+ and vegetarian to athletes choice.¹¹⁹

7. *Weight, Satiety and Appetite Suppression* is driven by the overweight debate and the diet discussion currently raging in several parts of the western world. Important markets are believed to be childhood obesity and the global obesity trend, most west European countries having an obesity rate of 12 to 18% and east European up to 40%.
8. *Functional Snacks* is another major market already beginning to be exploited in North America and some European markets as discussed above. Additionally according to the Australian department of Industry, functional food products such as healthy snacks and wholemeal solutions are seen as potential growth areas.¹²⁰
9. *Mother Nature knows best* is another future trend, according to Sloan, due to that consumers feel more at ease using products perceived as “natural” coming from natural ingredients rather than products perceived as processed or unnatural.
10. *Non-traditional Food Markets* includes areas of treatment that previously have been reserved for specialist such as treatment of teeth, muscle pain, sinus and allergy problems, eye health or PMS.

4.6 Summary

There are many definitions regarding functional food although three common denominators can be seen. Concerning legislation and codes the only country with legislation in place is Japan and development is on the way with in the European Union. Sweden has a well developed voluntary code with many similarities with the Japanese legislation. The three main trends pushing the food industry in general are closely related to the development of functional foods and aiding in the development are demographic trends. Functional confectionary can be seen as a part of the preferred future food providing indulgence with a health benefit and several products are on the market, especially in the US. Future areas of growth for functional food are believed to be many and diversified reaching in to a wide spectrum of products. After this presentation of definitions, rules and trend regarding functional food and functional confectionary the paper will now continue with a presentation of the empirical findings.

¹¹⁹ <http://www.apoteket.se>, accessed December, 2004

¹²⁰ <http://www.dpi.qld.gov.au/businessservices/11372.html>, accessed November, 2004

5. Empirical study

The empirical material consist of information gathered and analyzed from five focus groups, as described in the methodology chapter, as well as results from other empirical studies within functional food, confectionary and functional confectionary. This chapter begins with a presentation of what was said in each focus group, a vertical analysis, concerning the three areas of discussion; functional food, confectionary and finally the combination of both, functional confectionary.¹²¹ Thereafter summaries of the focus groups discussions will be compared with earlier empirical findings, consequently summarizing important empirical findings.

5.1 Focus group discussions

I will now present the discussion in each group starting with the two younger groups, moving on to the two older finally rounding of with the group of parents with younger children. The empirical data will be presented in the same order as the questions in the discussion guide (app. 1), with the first two discussion points of functional food and confectionary, beginning with; *what* the term means to the group, *why* the product would be bought, *when* it would be bought, *who* would buy it, *important factors* influencing the decision and finally summarizing the major pros and cons of the discussed topic. The final discussion point of functional confectionary will also include a discussion concerning differences between types of confectionary and different functional ingredients in confectionary. Although following the same discussion guide in every group some unique topics occurred in each, as a natural development of the discussion.

5.1.1 Male athletes, 27 to 28

Functional Food

Discussing *functional food* different opinions were voiced concerning the meaning and content of the expression. An agreed upon factor was *health*, although one of the group members was a bit sceptical to the entire concept saying “it’s not a natural product, it seems processed and that makes you a bit sceptical”. Functional food was also considered to be some sort of *fast food* because of the many different tasks it performed e.g. reducing your hunger and providing a health benefit such as extra fibers and/or vitamins. A more negative aspect was the feeling of eating an *unnatural and processed* product.

Moving on to *why* the product would be bought the main argument was that extra *vitamins or minerals could not hurt* and during hard periods of *training* it was believed to be good for you as it could reinforce the *immune-system*.

¹²¹ for more detailed information see the discussion-guide in appendix 1

Discussing *when* functional food was bought it was not seen as a product you acquired wanting something more luxurious or fresh; rather it could be considered in *staple commodities*. Regarding the decision process the grocery list never, according to the participants, contained a specific label or function to be purchased but rather items in general, functional food purchasing was rather described as an impulse decision.

Concerning *who* bought the products, it was believed that *athletes* did but even more so people who had a *higher degree of education and a higher income*. A special target group was additionally believed to be *women in the age between 25 and 35* because of their generally healthy lifestyle including fitness activities. Concerning groups not interested in functional products overweight people in society were regarded, since it was believed that they had given up in some sense, another group believed to have little interest were pensioners.

Important factors when shopping for functional food were the *perceived advantage* one could get from the products and being able to *stay healthy during periods of hard training*. Another factor mentioned was the *expiration date*, experiencing that some functional products could be short lived. *Taste and price* were seen as important factors but in some cases they could be *compromised in the aspect of health* as one participant expressed it “...I buy wholegrain bread because it is healthy even if it is not as tasty...”. *Sugar* was another factor having quite a large influence on the purchasing decision, where as all participants had stopped eating particular food products due to high sugar content, examples of this were certain types of muesli and bread.

Finally summarizing, the main drawbacks were seen in *higher price*, the fact that the product was *not seen as natural*, *danger of losing control over what was eaten and dosage* not knowing exactly what the food contains and how much of the functional ingredient was consumed, expressed by a participant “...it feels like you can lose control over what you eat, since you don't know what it is exactly...”. The *pros* on the other hand were *convenience* aspects such as it was easier and more comfortable to get vitamins or minerals from food.

Confectionary

Moving on to the discussion concerning *confectionary* first mentioned was pick ‘n mix confectionary. Further confectionary was seen as something *tasty* but at the same time *unhealthy*. It was also believed that it was *addictive* as there was an experienced constant need for something sweet, among the participants. Although seen as unhealthy two of the participants believed that crisps/chips was an even more unhealthy option.

Discussing *why* a confectionary product was bought the main argument was *taste* and to some extent as a *treat* as well as *extra energy*. It was also seen as a *necessity* at least once a week to satisfy a craving. Another issue discussed was that confectionary could be used as an *enticement for children* when an argument had to be settled.

Concerning *when* it was bought it was seen as a *pick-me-up in the afternoons* when the blood-sugar level was low. Further when *going to the movies or watching a film* at home

confectionary was seen as a necessity. There was also consensus concerning the fact that consumption of confectionary had expanded from being a weekend treat to an *everyday product*, reflecting on their own upbringing. The reasons for this were seen in a less healthy lifestyle in general and more indoor activities for children such as computer games. Further it was believed that parents did not set boundaries as “in the good old days” mainly due to stress.

Regarding *who* would buy confectionary people from *all walks of life* were believed to do so. Although *high consumption groups* were believed to be, not those with high income and higher degree of education, but rather *low income groups as well as children*. *Moral issues* were discussed concerning the fact that confectionary often was sold with a cartoon character on the package often relating to a recently released children’s movie.

The most *important factors* when buying confectionary was first and *foremost taste* thereafter several other variables were considered, in declining importance after taste; *freshness of the product, price and brand*. Beside pick n’ mix *brands* were considered more important, and mentioned brands were Gott&Blandat and Bilar, the reason for buying these products was recognition.

To sum up the *pros and cons* of sugar confectionary the main positive aspect was the *pick-me-up effect and taste*. The drawbacks were seen in its *addictiveness* and that *money was spent* on it that rather could have been spent on something else.

Functional confectionary

Considering the combined product the initial response was positive with one of the participants saying “*vitamin enriched confectionary would sell very well*” with two of the other agreeing. Another response was that *confectionary*, in today’s society, can *not be seen as healthy*. Further it was believed that the product could *not be called confectionary* rather a different name should be found. Continuing, one of the participants suggested that the product should be called *less unhealthy rather than healthy* so that consumers would not be confused.

Concerning *when* it would be bought one of the participants believed firmly that he would buy *vitamin enriched confectionary* if *having a cold* since there is a need to get well as soon as possible. Two others agreed if the product was *sugar free and tasty*, it would definitely be an option as it also could help to reinforce the immune system.

Concerning *who* would buy functional confectionary *both overweight and health conscious* people were considered as possible target groups although no deeper explanation could be given.

Discussing functional ingredients in *different types of confectionary* there was a more accepting and positive response to throat lozenges and chewing gum. The main difference between on the one side confectionary and on the other throat lozenges and chewing gum was

that the later two were not seen as real confectionary also considered always being sugar free. Further they already contained a function such as throat soothing or positive effects for teeth. As a consequence of this, having lozenges or gum as carriers of other functions was seen as more acceptable.

Testing the response to *different functions* the following answers were given:

- Confectionary helping you to *stay awake*, increasing alertness was seen as *interesting especially with caffeine*. Students were seen as a specific group that would be interested in this alternative.
- Confectionary with some sort of *cold soothing* ingredient gave a bit more mixed response. *Vitamin* enriched was the most acceptable option, with one of the respondents saying that he would buy it *doing anything to get better*, while the other three were a bit more reserved. Concerning *ginseng* enriched confectionary the same respondent as previously was interested while the other were a bit more reserved and one of them saying he would *rather get his cold soother at the pharmacy* and/or from natural remedies.
- Confectionary with a *positive/soothing effect for the stomach* was received positively by three of the participants although with one disagreeing seeing it as an odd combination.
- *Improved skin* was not of interest for the participants in the group but was believed to be a product that would gain market shares *among women from younger to middle aged*.
- *Hunger decreasing* confectionary was seen as *something positive* and could be considered since there always was an interest to lose a kilo or two for these athletes, believing that there were many in society sharing that idea.
- Lowering the risk of *cardiovascular disease/atherosclerosis* was received positively, agreeing that better fat such as Omega-3, would not be a bad idea even in “unhealthy” products.

Finally summarizing the discussion, the combined products main drawback was believed to be *price* with a firm belief that the product would be sold at a higher price than “ordinary” confectionary. Another factor was the feeling of eating something *unnatural or artificial*. However on the *positive* side improving the effects of confectionary with an *extra pick-me-up effect* was considered positive as well as other functions such as improved skin and hunger reduction.

5.1.2 Women, 26 to 32

Functional food

Discussing functional food, the first thing that came to mind was juice and cereal with fortifications of calcium and/or iron. Further products containing bacterial-cultures, multivitamin and fibres came up for discussion. Brand names such as GoMorrón Juice, Acidophilus and ProViva were mentioned.

Considering *why* these products would be bought, first mentioned was *easing a bad conscience*, seeing the products as a *complement to a diet* that was in need of a bigger modification but complemented by functional products in an attempt to eat healthy, comparing it with a visit to McDonalds getting a diet Coca Cola with the meal, in an attempt to be more healthy. Further the fortified product was, according to one participant, *not to be bought* considering pills to be a much easier and more controllable way of getting an every day dosage of vitamins and minerals. Additionally one respondent believed that products with fortifications of vitamins and minerals had to be enhanced due to poor quality of the raw material.

Concerning *when* these products were to be used it was suggested *when feeling poorly*, one participant describing an occasion when coming home from a vacation in Turkey drinking large amounts of ProViva to get the stomach in better shape. Other considered situations were; *when one has children* (none of the participants are parents) or *when having eaten poorly during a day*. Further the group concluded that if you were feeling fine, there was no need for functional products, however *if a product could make you feel even better* it could be worth considering.

Discussing *who* would be interested they saw themselves, *women 25 to 35*, and *elderly* to be the main target groups. The main reason for this was that women in their age try many new things, participate in fitness-activities, wanting to feel trendy and good about themselves. Another group considered to be interested was *people doing sports* thus health conscious. Additionally the discussion drifted towards who were in need of these products, where they believed that *obesity* could be *related to class* and *level of education* saying "...well it is not our children who don't exercise and become fat, because we are educated and we care and are aware, it's actually a matter of social class".

Important factors considered when discussing consumption of functional food products include first and foremost *price* since the products were considered to be *expensive*, with all group members expressing a willingness to buy functional products if only the price was lower. *Omega-3 fat acids* were seen as one of the most positive additives in functional food. *Sugar* in food products was not appreciated also affecting the choice of functional food. The Swedish health symbol shaped like a keyhole (*nyckelhålet*) came up for discussion since one of the group members had heard that the logotype did not consider *sugar*, thus products with the keyhole could have high sugar content. This was seen as problematic with the discussion especially focusing on bread and yoghurts. Additionally the aspect of *GI (glycaemic index)* was discussed in relation to sugar and other carbohydrates saying that it was important to eat properly in order to stay healthy. Further *knowledge* about functional additives was believed to be important saying, who knew what Omega-3 was five years ago.

When discussing if anything was *missing in the functional food assortment* today, one participant mentioned a product making you *feel filled (saturated)* thus getting satisfied quicker when eating, also keeping that sensation for a longer period of time, was desirable. However two of the group members opposed this strongly seeing parallels to different natural remedies etc that were seen as dangerous, only giving a false feeling of saturation.

Summarizing a *drawback* was seen in the risk of getting an overdose of vitamins and/or minerals from products, mentioning the recent debate in Denmark where cereal had been seen as dangerous if eaten in combination with other enriched products due to risk of over dosage. Another risk was believed to be that people replace other food products with functional food, thus putting too much belief in them, deceiving themselves into believing that they are eating a healthy diet and not having a need to exercise. On the other hand the advantages could be to soothe a bad conscience, as well as benefiting from eating more healthy products in combination with the regular diet thus gaining a health benefit.

Confectionary

Continuing the discussion with the second topic the participants saw confectionary as something; *tasty, sweet, you are always craving, and there is always room for*, describing a situation where you are completely full after dinner but still, there is room for candy. Further it is seen as *addictive* as you must have it a couple of times a week because you are used to it. The participants also discussed that their relatively large consumption of confectionary today might be interlinked with the restrictions that existed concerning candy when they were young. One participant saying “...is it because when you were young, you were only allowed to eat it on Saturdays, is that why you eat so much today, thinking ‘I’m a grown up now, I can eat candy before dinner and on the way home from the store’?”. The comparison between their upbringing and confectionary consumption today also reflected over the increase in bag sizes. Especially when it came to the pick ‘n mix assortment, with much smaller bags before than today and the fact that you were not allowed to touch the candy yourself, but rather you pointed through a glass at what you wanted. The participants agreed that this was one of the main reasons for, what they believed to be, a much higher confectionary consumption today.

The main reasons to *why* confectionary was bought, besides the already mentioned, were first and foremost *taste* and to give you an *energy-boost*. Additionally it could be bought to please the boyfriend or fiancé.

Concerning *when* confectionary was bought and consumed; *Fridays, weekends and after lunch* were the main occasions. It was agreed that eating confectionary before lunch was seen as wrong; indicating bad character, comparing with alcohol that normally not is consumed before lunch. Additionally when *going to the movies or watching a film* at home as well as *late evening shopping* in the *convenience store*, were situations mentioned. One of the participants also saw it as a *reward*, as she had stopped smoking, needing something to do with her hands, thus increasing her consumption.

Concerning *who* eats candy, it was considered that *everyone in society* ate it and that high consumers were *school kids and women*.

Important factors considered when buying confectionary were *primarily taste and price*. *Brands* were important to such a degree that you want to *recognize what you buy, not getting a copy of the original* candy one desires. Further the *freshness* of the candy, especially when it came to pick ‘n mix was important.

Concluding the discussing, one of the main *drawbacks* was seen in that school children *replaced meals* with confectionary and other sweet or fat products such as pastries and/or chips/crisps. Another negative factor was the *irritated looks* that you could get when eating candy, as it could be seen as a sign of bad character. Additionally obesity, dental problems and diabetes were mentioned as problems associated with candy. The fact that money was spent on something that maybe was not essential was also considered on the con side. The pros however included the enjoyment and satisfaction of eating something nice and tasty as well as the pick-me-up effect when needing an extra energy boost.

Functional confectionary

Discussing functional confectionary the first reaction was that the products *would have sold well* seeing the upside in being able to eat candy and get other *nutritives and fortifications as a plus*, something extra. Another primary response was that the products should be *sugar free*; otherwise they could not be seen as healthy. However the *risk of over consumption* of additives was seen as a problem as well as the risk of *deceiving children* and others, especially people with *low levels of education*, into believing that candy consumption now was healthy. Here the participants saw a *moral problem* for a future producer.

Discussing *why* functional confectionary would be bought, the main reason was; *as long as one buys confectionary it could just as well be fortified*, giving you some sort of benefit. One of the participants said that she would *not buy* this type of product, never wanting to support a market like that, seeing *severe moral problems* in the marketing of such an item. Another participant saw a problem with the combination of healthy and confectionary, not believing that the two could be combined, as healthy products normally not could be considered as tasty, with one participant saying "...candy is supposed to be unhealthy!". A suggestion was that if confectionary was to be fortified or in other ways made more healthy it should be *done so with out the consumer's knowledge* in support of general health. Although it was understood that this might not be an option as no money could be made on such an action.

Concerning *who* would buy these products, *parents were mentioned as it might ease their conscience* giving their children a bag of candy if it contained e.g. some vitamins, two participants believed that they rather would give fortified candy to their future children.

Considering different *types of confectionary* chewing gums and throat lozenges were seen as sugar free, none of the participants ever buying such a product with sugar.

Testing the response to *different functions* the following reactions were received:

- Confectionary helping you to *stay awake*, increasing alertness; was seen as dangerous and associations were made to drugs and a bad experience with caffeine pills, Dextrosol was seen as a better alternative. One participant made a comparison to the caffeine drink Red Bull saying that if there was caffeine in candy she could never fall a sleep considering the amounts of confectionary she consumed.
- Confectionary with some sort of *cold soothing* ingredient was received *more positively* with one of the respondents definitely wanting to buy vitamin or mineral fortified

confectionary *when feeling low* and if it was found in throat lozenges it was seen as even more interesting. However another participant would definitely not want to buy something like that and much rather go to a pharmacy or natural remedies store.

- A confectionary with *positive/soothing effect for the stomach* was not received positively, seen as an absurd combination.
- *Improved skin* was definitely seen as more positive, however one of the participants pointed out that it had to be sugar free, because sugar made you age faster.
- *Hunger decreasing* confectionary could be convenient on some occasions, but dangerous, immediately making associations with different diet cures and risks associated with those. Further it was discussed that age limits would be needed in the case of such a product.
- Lowering the risk of *cardiovascular disease/atherosclerosis* was seen as positive. Meaning that the replacement of fat in confectionary with e.g. Omega-3 would be beneficial. However a potential risk was seen, in individuals eating functional candy, claiming it to be healthy thus not needing to exercise. Therefore such an enhancement should be done without the consumer's knowledge.

Finally summarizing the discussion with the *pros and cons* of functional confectionary the main *drawbacks* were seen in the *risk of over dosage* and that it could be seen as an attempt by a corporation to *mislead consumers* in to buying more confectionary leading to *moral difficulties*. The *pros* included the *slight perceived benefit* from eating *fortified confectionary* as long as one was eating candy. This benefit could also be seen as *positive for parents* rather giving their children fortified confectionary than “normal” candy, to *ease their conscience*.

5.1.3 Academics, 38 to 50 (three women one man)

Functional food

Beginning the discussion with functional food the group members had mostly negative ideas of the concept such as *sterile, medical* and even getting chills hearing the term. It was also seen as *compressed* first being *refined* and than fortified in this aspect the “real” or “genuine” product was preferred. There were however some *positive* associations including *healthy, strengthening public health* and something that was *eaten to feel better*. It was also seen as a product served in plastic containers as a *healthier version of fast food*. Products believed to be functional food included ProViva and other products with bacterial cultures such as shots, other oat based products, *beverages that could be drunk “on the go”* fortified with all sorts of vitamins and supplements, the margarine Becel with Omega-3, pure juices and some cereal with added vitamins and minerals.

Discussing *why* such a product would be bought it was seen as a help to *feel better*. Further it was seen as *easier and more convenient*. It could also be a way to *ease your conscience* when not having time to cook a proper meal. The group concluded the positive aspects with; *time saving* and *conscience easing*. On the *negative* side however fears were that people bought the products with a belief that they were taking an *easy lane to wellbeing*.

Concerning *when* the products would be consumed the first response was *not dinner* but rather as a *snack between meals* at the *place of work* as a pick-me-up. Further it was seen as a *durable product* that could easily be brought along, thus *suitable for trips and travel*. It could also be considered *if one had taken ill* knowing that a certain product would help.

Considering *who* would buy the products, *families with children*, *teenagers* and *singles* were seen as the main consumer groups. *Teenagers* were believed to be more *receptive of new ideas* as they were not set in their ways, *more influenced by advertisements* watching more TV-channels with ads. *Parents* could use the products when feeling *stressed finding it easier* to use something compressed (as they called it) rather than setting the table properly, one participant saying "...it easier to use something like that, than setting the table and actually having a sandwich or sour milk, like a proper breakfast". *Singles* were seen as high consumers due to the fact that it was boring to eat alone, rather taking something quick and easy. Concerning *singles eating the "right" food* was also discussed as a factor when trying to *sell one self* on the dating market. Further level of education could, in some aspects, be seen as an influencing factor, with a belief that *academics* were *more critical* and wanting more proof before trying something new. *Elderly* were seen as a *low consumption group*.

Important factors when buying or considering to buy functional foods included *primarily*, with all participants agreeing, *taste*. Other important issues were *durability*, *availability* and *price*. Further it was believed that if the product was *low fat* it would sell even better. Functions seen as more reasonable than others included vitamins and products with bacterial cultures.

Concluding by summarizing the pros and cons of functional food, the *drawbacks* were; *medical*, *sterile and processed*. A risk was seen in that people could believe that it was a fast lane to wellbeing. On the *positive* side the two main benefits were *time-* and *conscience-saving*, especially among families with children and for singles.

Confectionary

Continuing the discussion with confectionary it was seen as; *tasty*, *fuel*, *something extra*, but *also unhealthy* although chocolate was believed to be healthy in reasonable amounts and that candy could be good after dinner helping with the digestion. It was also seen as *something social* always appreciated when brought to e.g. the place of work. Further it was seen as something humans always had been interested in. However it was also considered; *bad for your teeth*, *fattening*, *blocker of other nutritive*, and in the case of children and teenagers, as a *replacement for normal food*.

The reasons to *why* confectionary was bought, included; *as a treat*, *satisfaction* and *as a reward*, especially when it came to children. It could also be bought to *help you stay awake*.

Discussing *when* confectionary was bought special occasions as; *going on a trip*, *at the office in the afternoon* or *at the conference* were mentioned. *Fridays* was the special weekday for candy consumption saying that it had replaced Saturdays as the traditional day for

confectionary. Additionally *holidays* such as Christmas and Easter were seen as times for candy.

Concerning *who* ate candy, *children* were seen as the largest target group and elderly were seen as the smallest. When children consumed confectionary it was bought by the *parents often as an encouragement* to get past an everyday obstacle.

Important factors when considering buying confectionary included *primarily taste*, thereafter *freshness and price*. Concerning the pick 'n mix assortment *freshness* was of extra importance. *Brands* were a help to getting what you want avoiding certain odd labels, with the participants agreeing that it should be "*original*" *products* that you recognize.

Summarizing the discussion the main negative aspects were health related issues such as *tooth problems, fattening* and that it could *replace other nutritives and food*. On the *positive* side it was seen as *tasty, extra fuel* giving a sometimes needed pick-me-up, and *something extra in everyday life*.

Functional confectionary

The first reactions to the concept were mixed. One participant believing that it would sell well with another agreeing saying that vitamins could be added and that might be *an easier way to give children their vitamins*. However another reaction was that *confectionary and health can not be mixed* creating an illogical connection saying "well it is in the nature of confectionary, it is supposed to be unhealthy..." with another participant wondering if one would find confectionary as tasty, if it also was healthy. If a functional confectionary product was to be launched the participants meant that a *different name* was needed, not calling it candy. Further it was believed that it should come in *different shapes and colors* than "normal" confectionary so that consumers, especially *children, would not be confused*. The main reason for this was the *risk of over consumption* of different fortifications. This reasoning continued with an idea that if functional confectionary was launched there might be a need for *age limits on confectionary* with labels indicating suitability. This was however seen as a *contradictory to the role of confectionary in families* where confectionary was eaten on equal terms uniting all parts of the family.

Discussing *why* such a product would be bought the main *benefit was seen in the easing of parent's conscience*. Further it would be *easy to bring with you* to work or on a trip. One participant believed that *knowledge* of what different ingredients do and if they are reliable was a major barrier in the decision of the consumers.

Concerning *when* functional confectionary would be consumed it was believed it might be easier to *get children to take their vitamins and minerals* if the fortifications came in confectionary. Another participant believed that consumers might *try something new in confectionary first*, before going to the natural remedies store to pick up a bottle.

Concerning *who* would buy the product, *teenagers, people wanting to ease their conscience* or change the way they consume today, were mentioned. The teenagers were, as with functional food section, seen as more open minded accepting and trying new products more often as well as they were believed to be more influenced by adverts. Teenage girls were seen as an especially receptive group as it was believed that they were looking for the easy way to stay healthy but not wanting to give up on confectionary.

Discussing different types of confectionary *chewing gum* was seen as a product where the step already has been taken towards *functionality*, thus making it more acceptable to other functional ingredients. Concerning *throat lozenges* it was *not seen as confectionary* as it was not consumed in the same amounts, thus not being as risky. These two types of confectionary were also seen as subject to change always coming in new shapes and functions in contrast to “ordinary” confectionary.

Testing the response to *different functions* the following reactions were received:

- Confectionary helping you to *stay awake*, increasing alertness was seen as more or less positive by all group members with *caffeine* coming up as the *preferred ingredient*. Further there was an agreement that this would be the function that consumers would accept most easily as the *reaction could be seen immediately* and that it *already was connected to something tasty*, compared to e.g. cold soothing functions.
- Confectionary with some sort of *cold soothing* ingredient was seen as positive by two of the participants one saying that she would eat something like that *preemptively* and the other saying it would be useful when one had gotten a cold, thus eating it as a reaction to a symptom. The other two participants were a bit more skeptical to the idea. The main objection from one of the group members was that, as a consumer, you want to see *proof* of the effects not just claims.
- A confectionary with *positive/soothing effect for the stomach* would be desirable perhaps *at the place of work or after lunch* when the stomach was a bit upset. However not all agreeing.
- *Improved skin* was received positively by two of the participants believing there would be a market for such a product.
- *Hunger decreasing* confectionary was not seen as desirable, although one participant could consider using it on some occasions when there was no time for lunch or if traveling. Another participant said that the opposite type, none-filling, confectionary would be desirable for parents knowing that their children would have room for “real” food even though having eaten candy.
- Lowering the risk of *cardiovascular disease/atherosclerosis* would not be a bad idea with one of the participants saying that she was eating too little fish and this might be a way to compensate for that. Others were agreeing that a better fat as Omega-3 would be preferable in all types of products containing fat.

Summarizing, the discussion *health and confectionary* were two terms not seen as easily compatible. A benefit of functional confectionary could be that it might be an easier way to get children to take their minerals and vitamins. However the drawbacks dominated this

discussion with fears of over consumption of additives. Further, knowledge was seen as a barrier for consumers to purchase such products, not knowing what the ingestion of different ingredients could lead to. Concerning different types of functions the *most positive response* was received when discussing *confectionary helping you stay awake* and alert, as this was closest to the effect that confectionary had today, and that the effect of e.g. caffeine was well known among consumers.

5.1.4 Males 42 to 67

Functional food

Starting the discussion with what functional food meant to them several different responses were received. It was primarily seen as *snacks* between meals that could be micro-waved. Furthermore it was seen as more *expensive*, as there was a feeling that one had to pay more for healthy products, seeing this as a problem, from a public health point of view. It was also discussed whether functional products contained less *sugar* and if there was any consideration to the glycaemic index. The Swedish health label shaped as a keyhole (nyckelhålet) came up for discussion, with one participant saying that products with the logotype were *high in sugar*, others agreeing that this was a problem, but the oldest participant disagreeing saying that sugar was an important part of a diet. The products mentioned included *dairy products* with *bacterial cultures*, *food high in nutritives* and with the *right balance of nutritives*. Specific brand names known by the group members included; ProViva of different types.

Considering *why* a functional product would be bought *media* and *recommendations from friends and/or doctors* influenced the selection process. According to one participant there was no apparent reason not to buy functional products as a *healthy complement to your ordinary diet*. But it was also believed that “...adding something to a product is just good marketing to make you buy something you actual don’t need”. This was especially believed to be the case with foods fortified with minerals and vitamins.

Discussing *when* functional products were bought it was seen more as *complement to the everyday diet* rather than in staple commodities such as pasta, potatoes or rice. Furthermore the products could be considered if there was *not enough time to cook a proper meal* or when in need of a something extra as *after a workout*. The participants had tried products when they had *experienced a problem*, e.g. ProViva when experiencing indigestion. Additionally the choice to buy functional products was, in most cases, not done at home rather it was a *spontaneous decision* made in front of the separate shelves of e.g. bread or dairy.

Concerning *who* would buy these products, *younger people* were believed to be more accepting since they were not stuck in a routine, however there was a feeling that an increasing amount of *elderly* were trying new functional products. Another considered group was *singles*, due to the fact that it was boring to cook by themselves, thus eating something quick and easy to prepare. Other factors, such as *high income* and *living in a metropolitan area* were believed to influence the purchasing of functional food in a positive way.

Important factors when considering functional food included primarily *price, layout of the package, placement of the products in the store and in-store test* of new products.

Summarizing functional food could be *useful when having some condition* such as indigestion, in situations when there was *not time to cook a proper meal* and in some cases as a good *complement to your ordinary diet*. However it was believed that *many of the functional products*, especially those with fortifications, were *just marketing schemes*. Further the products were seen as *expensive* and there was a belief that one had to pay extra for health.

Confectionary

Discussing confectionary the first thing that came to mind was *pick 'n mix*, according to the participants, due to the fact that this was exposed the most. Furthermore it was seen as rather *inexpensive* and could also be seen as a type of *fast food*. It was also considered *tasty, a pick-me-up and fast energy*. But there were also negative aspects such as *tooth problems, diabetes* and *replacement of meals* as candy had become an everyday product and came in much larger packages compared with during their own upbringing.

Discussing *why* the products were bought it was seen as *tasty, a pick-me-up and fast energy* and it could be seen as an *inducement for children*

Considering *when* confectionary was consumed it used to be on special occasions such as; *parties, going to the movies*, although these still being the primary circumstances, candy was *becoming more and more an everyday product*.

Discussing *who* buys confectionary, it was believed that people from *all walks of life* consumed it although *teenagers were regarded as high consumers*.

Important factors when buying candy included *primarily taste*. *Price* had an influence but was not as important as *quality and freshness* of the product especially in the pick 'n mix assortment. *Brands* were more important when it came to packaged products choosing what one recognizes, knowing what you get, believing one was a person of habit.

Summarizing, the main *positive* aspects were; *taste and extra energy*. The *drawbacks* were different conditions such as *caries and diabetes*. There was also concern that the products were eaten more frequently nowadays making it an everyday product *replacing regular meals* especially for children.

Functional confectionary

The reaction to the combined product was mixed. One participant thinking it would be the *perfect product* imagining something *tasty and at the same time healthy*, another group member not seeing it as such a good idea. It was also believed that this type of confectionary

should be sugar free counteracting the effect of “ordinary” candy. Although when the idea of “normal” confectionary with sugar and some sort of functional ingredient was discussed the idea seemed less appealing with fears that *confectionary would be eaten with imagined good conscience*. A *morale concern* was raised that it would be *targeted at children as something healthy although full of sugar*.

Concerning *why* functional confectionary would be bought a reason was that it could be a *better alternative than the existing one*. Another line of argument included that *parents of younger children* would find it good to know that the confectionary that their children were eating was *not so harmful* with one participant saying “...I imagine that for parents with younger children, it could feel nice to know that you are giving them something that is not so harmful...” this was agreed upon by two of the other participants.

Continuing the discussion with *when* functional confectionary would be eaten, *after a workout* was one idea, with one participant saying that some of his friends took the, according to him, too sweet energy drink “Power” since they had seen athletes on TV drinking it thinking that it would be good for you. With this in mind he believed that confectionary targeted at people who exercised would be a good idea especially if promoted by a famous athlete.

Discussing *who*, groups considered included; *parents of younger children* as it could ease their conscience and *athletes/health conscious individuals* believed to be interested in a product that would ease their conscience when eating something sweet but also needing an additional energy boost from time to time.

Considering *different types of confectionary* the reaction was that in *throat lozenges or chewing gums* the effect of the added *functional ingredient would not be noticeable* due to the small size of the product.

Testing the response to *different functions* the following reactions were received:

- Confectionary helping you to *stay awake*, increasing alertness was seen as something that could be *positive on special occasions* among four out of the five participants, with *students* being a specific target group. The objection was although that it could be misused leading *to addiction*, one participant making parallels to amphetamine.
- Confectionary with some sort of *cold soothing* ingredient was received with a *mixed response* not seeing it as impossible to try. Considering whether to prefer it in confectionary or throat lozenges, the choice was difficult since confectionary was eaten when having a cold because you felt sorry for yourself, and throat lozenges to make you feel better.
- A confectionary with *positive/soothing effect for the stomach* was seen as an *alternative to ordinary anti-acids* or bacterial culture products by three participants. One participant seeing it as a perfect after-lunch-treat if found in a chewing gum with mint taste. The main objection from another participant was that it would be better to address the problem rather than treating the symptom.

- Lowering the risk of *cardiovascular disease/atherosclerosis* was seen as *slightly positive*, but the real effort, it was agreed upon, had to be to attack the problem of an unhealthy diet in general.
- *Hunger decreasing* was also believed to be a good idea if it could be a snack that would keep the energy at a constant level for some time so you would not have a constant craving. Although objections were raised, as it was believed there could be a risk of addiction not eating proper food at all.
- *Improved skin* was not seen as an option for the participants but it was believed that it would sell well, with everyone agreeing.

Summarizing the *pros and cons* of functional confectionary it seemed like the main advantages were seen in the possibility to, while eating candy, get a *small health benefit*. This was also something believed to be received positively by *parents* and *health conscious individuals*. The major drawbacks seemed to be the *risk of over consumption* of confectionary with an imaginary good conscience and the moral difficulties that are experienced when trying to sell a product addressed at children as healthy although containing sugar.

5.1.5 Parents age 30 to 36

Functional food

Beginning the discussion with functional food the first response by two of the participants was *fast food*, something you heat up in the microwave. Further *sour milk* was mentioned as well as certain *fortified juices*. It was also believed to be *healthy* and probably *good for you*. But there was also a pretty high degree of *scepticism* with arguments such as *not knowing the consequences* of eating functional food and not feeling a need to add anything to your body if you were feeling fine. Specific brands mentioned were; Acidophilus, ProViva understood to contain some sort of bacterial culture benefiting internal functions and Ekströms Liva, a juice drink also containing bacterial culture.

Discussing *why* these products would be bought reasons mentioned was after *recommendation from a doctor* or another authority or *if a need arose to address a specific condition*.

Concerning *when* functional food would be used situations such as *feeling low* or having some type of *special condition needing treatment*, were mentioned. It was also believed that *the choice* between functional and non-functional products was to a *high degree made in the store* when standing in front of a specific shelf, although this was not the case when having a recommendation from a doctor for a specific product.

Continuing with *who* would be interested in functional food, *people who already were interested in health* and that had a healthy diet to begin with, were considered to be more interested. There was also agreement that they as *parents* would buy these products if it in some way would be beneficiary for their children.

Important factors when choosing functional products were; *price*, experiencing the products to be more *expensive* and *taste* was seen as an important factor, saying “...if a functional product would be bought it would have to be really tasty to make up for the price difference”. Further *sugar* was mentioned as important when shopping for all types of food, thus also influencing functional food choice.

Concluding the functional food discussion the *pros* were seen in some sort of *health benefit* and that the products probably could be good for you, especially when treating a specific condition. The *cons* included not knowing the *consequences* of what you ate and the fact that the products were seen as *expensive*.

Confectionary

Discussing confectionary the initial responses included *dark chocolate* and *pick ‘n mix*. Further it was seen as *traitorous* and *dangerous* as it was *tasty* but at the same time luring you to eat more. Further it was believed that *sugar* was addictive and that it could be *fattening* if eaten in to large quantities. There was also a belief that the sizes of bags and the volume of confectionary eaten today were larger/higher than earlier. There was also a desire to make sure that their children only ate it once a week but this was hard to maintain as there was easy access too confectionary, when your children got a little bit older. However confectionary was also seen as a fast and convenient *energy booster* e.g. when driving long distances.

Discussing *why* confectionary would be bought it was seen as something *social*, bought when having visitors. It could also be used as an *inducement for children* ending an argument, further it was used as an *energy boost* and *as a treat*.

Specific situations *when* candy was bought included *grocery shopping after work* being hungry and being in need of an energy boost. Other specific circumstances included *Fridays* after working the entire week replacing Saturdays as the primary day for confectionary. Additionally when *feeling poorly* staying home from work buying candy as one was *feeling sorry for one self*, was seen as an additional situation. It was also something eaten on special occasions such as *birthdays and holidays* and when *going to the movies*.

Concerning *who* bought candy it was believed that everyone in society did consume it, but *families with children* were seen as the high consumers as well as *teenagers*.

Important factors influencing the choice of candy included the *mood* one was in, depending on whether one was looking for something to satisfy hunger or just a craving for something sweet. Furthermore the *size of the bag* could be of importance since one knew that it was almost impossible to stop before the bag was empty. Another important factor was *family preferences* making sure that everyone got something that they liked as the preferences differed, with children liking sweet and sour products and adults more chocolates. Influencing the choice could also be whether the confectionary was to be *consumed now*, looking for fast energy, *or later* maybe choosing an expensive 80 % chocolate. *Price was not as important as taste or preferences* although it did have an influence. Concerning the pick ‘n mix assortment

brand was of outmost importance for one of the participants believing that the low price copies tasted bad and that it was important to find the original brand. This was agreed upon by the other participants. Specific brands mentioned included Karamell Kungen when looking for pick ‘n mix, although one partaker pointed out that it was only a wholesaler and said when looking for Fishes it must be Malaco with the others agreeing unanimously.

Concluding the discussion on confectionary the *pros* were *taste, energy* and *convenience* the *drawbacks* were found in the *experienced addiction, easy access* and that it could be *fattening*.

Functional confectionary

The primary reaction to functional confectionary was that it would be *ideal with both taste and health in one package*. Another reaction was that it *had to be, primarily, tasty*. Yet another reaction was that *confectionary should not be healthy*, “that was not what it was for”, and that if a product was to be functional, the basic product where the functional ingredient was to be found, had to be reasonably wholesome. Another line of reasoning was that functional confectionary could *lead to over consumption of confectionary* with some individuals believing that it was good for you although it still was high in sugar. There was also concern regarding *dosage*, getting desired effect of a functional confectionary product, as well as the feeling of eating something *unnatural or artificial not wanting to give that to children*. One participant wondered where the *line between candy and not candy* could be drawn, saying that breakfast cereal in some instances almost could be seen as sweets and if confectionary manufactures drifted towards health the dividing line would be even harder to find. Continuing the products had to be *trustworthy* and you as a consumer wanted to feel that you were *making a smart choice*, not wanting to be one of those “stupid” consumers.

Discussing *why* it would be bought one argument was; *functional confectionary might not be as harmful to you* as “normal” confectionary and that you might get a *slight health benefit even though eating candy*.

Considering *when* functional confectionary would be bought the first reaction was when *feeling poorly in need of a cure*.

Continuing with *who* would buy this type of product, yet again *health conscious individuals* were believed to be interested already leading a healthy lifestyle and being willing to expand this to new areas.

Discussing *different types of confectionary*, regarding *throat lozenges* the participants became *more open-minded*, finding it easier to accept functional ingredients in them. The same response was given concerning *chewing gum as the barrier already was crossed* towards health, not seeing it as candy as it always was seen as sugar free, and with positive effects regarding dental health being the reason for its purchase.

Testing the response to *different functions* the following reactions were received:

- Confectionary helping you to *stay awake*, increasing alertness was received more or less positively by all participants and was thought to be an *alternative to caffeine drinks, natural remedies or snacks* when staying late *at work or studying* for long hours.
- Concerning confectionary with some sort of *cold soothing* ingredient the response was a bit more mixed. One participant saying; *if they were tasty* it would be an alternative another having fears that it would be just another excuse to eat more confectionary. However two of the respondents said that they *normally bought confectionary when having a cold because they felt sorry for them self, so why not get a few extra vitamins or something else, to sooth the cold at the same time.*
- A confectionary with *positive/soothing effect for the stomach* was seen as a good idea, if it was thoroughly tested and could be relied on, e.g. *when feeling stressed.*
- Lowering the risk of *cardiovascular disease/atherosclerosis* was not as positively received a participant meaning that it was *rather a change in lifestyle* that was needed in the case of cardiovascular disease. However another participant thought it *could be an option* being more interested in easy solutions, saying “...if there was a chewing gum that could lower the risk of cardiovascular diseases he would most definitely try it”.
- *Hunger decreasing* was received positively by the two women taking part in the discussion, saying that they would try it, having tested almost everything else on the market. The male participants saw it as a *girl thing*, although agreeing that it might be handy in situations when there was no time to eat, having to stay focused.
- Getting *improved skin* from candy was somewhat interesting with two of the participant’s one male and one female, seeing it as an option. Another partaker was not so keen on the idea, not at all believing in creams and other skin improving products.

Yet another idea suggest by one of the participants was something to *reduce stress*, this was agreed upon by one of the other.

Summarizing functional confectionary it could be seen as *positive*, if it could be trusted, as a *bonus when eating regular confectionary*. Although there questions of how the *correct dose* would be received and the risk of *over consumption* of candy with a belief that it was good for you. Regarding different functions the most positive responses were given concerning confectionary helping you stay awake/alert and cold soothing functions.

5.2 Comparison: results from this study vs. other empirical material

5.2.1 Functional food

How the consumer of this study understands and chooses functional food

Combining the thoughts of the five groups, regarding functional food several similarities can be seen. On the positive side it was considered to be; *healthy, good for you, reinforcing public health*. Negative aspects of the term included; *unnatural, processed, refined, medical, sterile and compressed*. Further, in every group, it was seen as *expensive* and the aspect of not

knowing the *consequences of functional food for your health in the long run* occurred in two of the groups. Other more neutral thoughts were; a healthier version of *fast food* or something that could be consumed “on the go”.

Product groups reoccurring where *functional food* had been seen primarily included products found in the *dairy section* of the grocery store such as; sour milks, margarines, oat based commodities and juices. The *functional effect* mentioned most frequently reoccurring in every group were *bacterial-culture* known to be good for your stomach and *fortifications of vitamins and minerals* believed to have a general positive effect, besides in the group of older men, where it was deemed as unnecessary. The most well know *brand names* were the oat based bacterial-culture drink *ProViva* followed by the Omega-3 margarine *Becel*.

Discussing *why* functional food products were chosen arguments such as; *health benefit, extra vitamin and minerals can not hurt, strengthening the immune system, a complement to the original diet, easing a bad conscience, time saving, easier, convenient, after recommendations from doctors or nutritionists and seeing it in the media*. It was however feared that people who bought these products believed that it was a fast lane to wellbeing, when instead a change of the entire lifestyle was needed.

Arguments reoccurring for *when* functional food products were to be chosen included; *shopping for staple commodities, feeling poorly, eaten badly during the day, when travelling, at the place of work, as a snack (not dinner) or not enough time to cook a proper meal*. Further the decision to purchase a functional food product was, in all groups, made when standing in the grocery store in front of a special section e.g. dairy or bread, not on forehand. From the discussion on this topic it seems like functional food is bought in a reactive manner, when one got a symptom, rather than to prevent something.

Considering *who* would be more interested in functional food than others specific groups included; *athletes/individuals with a healthy lifestyle, women 25-35, elderly, well educated, higher income, teenagers, singles and parents*. The most reoccurring argument was individuals with a healthy lifestyle. Individuals believed not to be interested in these products were overweight individuals as there was a feeling that they already had given up, and in two of the groups it was believed that elderly would not be interested.

Important *factors* mentioned for adoption or rejection of functional food included; perceived health benefit, taste, price, sugar content, fat content, durability, availability, knowledge and in-store placement.

Other empirical studies

Several scholars agree upon that there is not enough knowledge today as to *what* constitutes a functional product among today’s consumers.¹²² Beginning in Sweden a study on functional

¹²² Gray (2002) “Consumer perceptions of functional dairy food market in Northern Ireland”

food, carried out by the National Food Administration showed that the term functional food was virtually unknown by almost all of the respondents. Most could only mention one or two products that they believed were functional. Further consumers, to some degree, understood the functional products as *drugs*, wondering how they should be consumed proactively or reactively when dealing with a medical condition.¹²³ In a Swedish consumer survey carried out by Jälminger concerning *what functional products were*, the most common answer was *healthy food* or food with *healthy additives*, further a few of the respondents saw the products as *healthy fast food*.¹²⁴ Further when Frank et al investigated the connection between knowledge about health with actual behavior they came to the conclusion that the general knowledge about health was good but the main problem was motivation when it came to acceptance and purchase of functional food.¹²⁵ Moving on to *Denmark* a study conducted by Poulsen showed that there was not much knowledge towards the concept of functional food and that although the *consumers were not so sceptical once they were introduced to actual examples of products*.¹²⁶ Further broadening the horizon to include other countries regarding *what functional food is* Bhaskaran and Hardley found that consumers mixed and left out different groups of food, making up their own classification. For example *functional food and healthy food was not seen as adhering to the same category*.¹²⁷

Regarding *why* the products were being bought an argument found by a study carried out in Sweden by Svederberg came to the conclusion that consumer's understanding of health claims in *food products* fundamentally was *based on the understanding and credibility of the health claim*.¹²⁸ In the Swedish survey by Jälminger just above 50% were willing to pay extra for a functional food product. When respondents were asked *why the bought functional products* the top reason was that the product was *considered to have healthy content (35%)* the second reason was *curiosity (33%)* and the third reason was to *address a specific health related condition or disease (21%)*. Among those *not buying functional products* about half said *not to have a need* or were *sceptical to the effect*. When asked about the amount of trust that could be put on functional products there were a wide spread of answers with a slight overweight towards the negative side. Concerning what functional food should be called all in the age group 55+ favoured the Swedish term although the majority of respondents thought another name for the products was needed.¹²⁹ In a study conducted in Sweden by Feurst on the shaping of eating habits, it was concluded that the effect of advertising and subsidiaries on healthy food does not change the way consumers choose in the long run. Possible ways to change consumer behavior with regards to healthy food are instead seen in; a wide variety of products, ideas and trends in society, and the effect on everyday life and habits.¹³⁰ In Denmark and the UK according to a study conducted by Jonas and Beckmann, one believed it was *better to eat a balanced diet*, maybe with the addition of a multivitamin/mineral pill as

¹²³ National Food Administration (2000) in Becker, W (2000) "Skepsis mot det nya"

¹²⁴ Jälminger, A-K. (2001) *Konsumenters inställning till functional food – en enkätundersökning*

¹²⁵ Frank, J et al (2001) *Functional Foods God hälsa - igår, idag, imorgon?* p.87

¹²⁶ Poulsen, J.B. (1999) "Danish Consumer's Attitudes Towards Functional Food"

¹²⁷ Bhaskaran, S. & Hardley, F. (2002) "Buyer beliefs, attitudes and behaviour: foods with therapeutic claims"

¹²⁸ Svederberg, E. (2000) "Konsumenters syn på hälsopåståenden", in Becker, W. (2000) "Skepsis mot det nya"

¹²⁹ Jälminger, A-K. (2001) *Konsumenters inställning till functional food – en enkätundersökning*

¹³⁰ Fuerst, O. (1991) *Kost och hälsa i marknadsföring*

supplement, instead of buying fortified foods. Further there was a belief that *dietary supplements were, cheaper, simpler and possible to dose compared to functional food*, thus it was unnecessary to have fortifications in food. Functional food was although seen as a way of getting a healthy diet in a convenient way.¹³¹ According to Poulsen the Danish consumers' acceptance of *functional additives in products was much higher if there was a natural connection between the functional ingredient and the carrier product* e.g. extra fiber in bread or calcium in dairy products.¹³² In Hallam's study in the UK consumers had a belief that the products we consume can influence our health. The *major concerns* were the *efficacy* and *reliability* of functional food, as it was considered that functional food could be *misused as a marketing trick* from manufactures.¹³³

A study carried out by Bhaskaran & Hardley on the selection of food in general and attitudes towards functional food in particular indicated that when *young people* were faced with food choice the most important factors were; *taste, quality, price and convenience*. Another finding was that these *consumers were reactive in their shopping rather than preventive*. Further in the *group of older participants* (aged 55+) there was a *tendency for preventive shopping* as they experienced a higher degree of risk of e.g. coronary conditions.¹³⁴ A study conducted in Germany by Potratz showed that consumers had a positive attitude towards the concept of functional food in general. Doubts were although present concerning the *efficacy* of the products as well as some *reluctance towards eating modified products*, seeing "natural" food as the most suitable.¹³⁵ In Canada an information campaign was launched about the benefits of eating healthy and preventing diseases with food resulting in 88% showing interest, wanting to know more, indicating the importance of knowledge when it comes to acceptance.¹³⁶

Concerning factors the most important variables are said to be; *educational factors, switching behavior and motivation*.¹³⁷ The results by Bech-Larsen et al suggested that differences in *acceptance for functional foods* across cultures and among individuals are due to *educational factors*.¹³⁸ A study conducted by Gray et al concerning choice of functional dairy products indicated that *awareness is the main factor* influencing consumption of functional products. Further the *degree of awareness is dependent of gender, age, education level and occupation*. It was also suggested that further research was needed concerning the awareness of functional food and the importance of brands in the process.¹³⁹ According to a Study carried out by

¹³¹ Jonas, M.S. & Beckmann, S.C. (1998) "Functional Foods: Consumer Perceptions in Denmark and England"

¹³² Poulsen, J.B. (1999) "Danish Consumer's Attitudes Towards Functional Food"

¹³³ Hillam (1996) in von Alvensleben, R. "Beliefs Associated with Food Production Methods" in Frewer, L.J et al eds. (2001) *Food, People and Society A European Perspective of Consumer's Food Choices*

¹³⁴ Bhaskaran, S. & Hardley, F. (2002) "Buyer beliefs, attitudes and behaviour: foods with therapeutic claims"

¹³⁵ Potratz (1999) in von Alvensleben, R. "Beliefs Associated with Food Production Methods" in Frewer, L.J. et al (eds) (2001) *Food, People and Society A European Perspective of Consumer's Food Choices*.

¹³⁶ National Institute of Nutrition (Canada), 2000 in <http://www.dpi.qld.gov.au>, accessed November, 2004

¹³⁷ Jayanti R.K. & Burns, A.C. (1998) "The antecedents of preventive health care behavior. An Empirical Study"

¹³⁸ Bech-Larsen, K.G. et al (2001) "The acceptance of functional food in Denmark, Finland and the United States"

¹³⁹ Gray, J. et al (2003) "Opportunities and constraints in the functional food market"

McConnon et al *the aspect of trust*, between different stakeholders in the community such as: companies, legislators, the medical community, nutritionists and consumers, is vital for the future development of the functional food market.¹⁴⁰ According to Hunter as there are no clear definitions of functional food, consumers may see it as a marketing trick not knowing exactly what they are buying.¹⁴¹ Concerning *ethical aspects* consumers often say that it is of importance although it does not affect actual behavior in the same degree.¹⁴² Gray et al however indicates that *taste* is still *the top factor* deciding food choice in general and functional food choice in particular. Acceptance is also due to the ability to convince the consumer of the *functional products safety and efficiency*.¹⁴³ That *taste* was a barrier for trying functional food was concluded by Frank et al concerning Sweden. Maybe not that the functional food products tasted bad rather that the idea of functional food for the consumer was something not high in taste.¹⁴⁴ In the study by Bech-Larsen et al it was concluded that *convenience, taste and wholesomeness* affected consumer's the most, regarding buying intentions for functional foods.¹⁴⁵ Childs considers the primary limiting factor to be regulatory precision, particularly in relation to product-health claims.¹⁴⁶ According to Frewer et al acceptance and the ultimate success of functional foods is believed to be reliant on a simultaneous campaign giving *information about the benefits* of functional food in general and how they are to be *incorporated in every day diets*. The understanding of *risk* is also seen as important when it comes to the comprehension of consumer's functional food choice.¹⁴⁷

Concerning *who* the functional food consumer is the survey by Jämlinger indicated that women were more aware about functional products than men, older had better knowledge than younger and those with high trust in the products were more likely to purchase. Additionally the age groups 17-34 and 55+ were the most positive to functional food as were respondents with higher education.¹⁴⁸ According to Becker younger consumers were the most critical to health claims, the most positive were older and women.¹⁴⁹ According to Frank et al the least interested consumer were found among younger and the most interested among elderly as they felt more at risk.¹⁵⁰ According to Childs the functional food consumer is more likely to be a middle-aged, female, well-educated, with a relatively high income, and leading an active and stressful life. This is supported by Bouge and Ryan in a study conducted in Northern Ireland, finding similar results. Contradictory to the Swedish results the most sceptical consumers, according Hilliams survey in the UK, were found among the 65+

¹⁴⁰ McConnon, P.L. et al (2004) "Differences in perceptions of functional foods" p.18

¹⁴¹ Hunter, B. (2002) "Functional foods are poorly regulated"

¹⁴² Carrigan et al (2001) in Urala, N. & Lätteenmäki, L. (2003) "Reasons behind consumer's functional food choices"

¹⁴³ Gray, J. et al (2003) "Opportunities and constraints in the functional food market"

¹⁴⁴ Frank, J et al (2001) *Functional Foods God hälsa - igår, idag, imorgon?* p.88

¹⁴⁵ Bech-Larsen, K.G. et al (2001) "The acceptance of functional food in Denmark, Finland and the United States"

¹⁴⁶ Childs (1994) in Gray, J. et al (2003) "Opportunities and constraints in the functional food market" p.214

¹⁴⁷ Frewer et al (2003) "Consumer acceptance of functional foods: issues for the future"

¹⁴⁸ Jämlinger, A-K. (2001) *Konsumenters inställning till functional food – en enkätundersökning*

¹⁴⁹ Becker, W (2000) Skepsis mot det nya

¹⁵⁰ Frank, J. et al (2001) *Functional Foods God hälsa - igår, idag, imorgon?* p.87

segment. Other studies in Germany carried out by GFK in 1998 and by Forsa showed similar results as Potratz with a generally positive attitude also showing that the highest interest was among young consumers.¹⁵¹ According to a study conducted by Kilsby & Nyström on the two largest dairy corporations in Sweden, Skånemejerier and Arla, as well as the Scanian Farmers Association, Skånska Lantmännen, the functional food consumer according to these companies was; target oriented, well educated and women rather than men as they were believed to be less conservative and in charge of grocery shopping.¹⁵² Looking at different markets the functional food market in the *US* has a tendency to be associated with *lifestyle and convenience* and in *Japan and Europe* the association has been more with *medical conditions*.¹⁵³ Looking at different consumers in the *US* the group with the highest share of functional food in their diet are the baby-boomers.¹⁵⁴

Discussion

Comparing the results from the focus groups with earlier research there are several similarities. Beginning with *what functional food is* the predominant positive features discussed in the focus groups were healthy food, fast food or a healthier version of fast food. This is largely in agreement with earlier research where similar conceptions were identified both in Sweden and abroad. Regarding more negative attitudes unnatural, medical and sterile were mentioned in the focus groups and is similar to earlier findings where it was seen as some sort of drug. Knowledge about functional food is, in earlier studies, identified as important for the subsequent acceptance. Similar findings were found in this study where several participants were unfamiliar when examples such as Omega-3 were discussed not knowing what it was good for. In the group of academics one of the women (44 years) expressed this explicitly by saying that she believed knowledge both about an ingredient and what sort of benefit it could give you, was a big obstacle among consumers when it came to the purchase of functional foods.

Regarding *why functional food was bought* the reasons discussed in the focus group study were; give you a health benefit, convenient and easing bad conscience. This is consistent with earlier research in Sweden where consumer's main reasons for buying the products were a perceived health benefit of the product, but also curiosity not mentioned in this study.

Discussing *when functional food would be bought*, the results from the focus groups indicate that it was primarily purchased reactively, when experiencing a condition, rather than as a preventive product, this was agreed on in every group. Specific situations ranged from when having a specific condition to as a snack. Regarding earlier research in Sweden addressing a specific condition was one of the top reasons for purchase. Whether buying the product

¹⁵¹ Childs (1994); Bouge & Ryan (2000); Hilliam (1996); Forsa (1997) & Potratz (1999), in von Alvensleben, R. "Beliefs Associated with Food Production Methods" in Frewer et al (eds) (2001) *Food, People and Society A European Perspective of Consumer's Food Choices*

¹⁵² Kilsby, T. & Nyström, H. (1998) *Utveckling och marknadsföring av nya svenska livsmedel med medicinsk effekt (functional food)* p.35-37

¹⁵³ <http://www.dpi.qld.gov.au/businessservices/11372.html>, accessed December, 2004

¹⁵⁴ Persson, K. (2000) "Functional Foods, en studie från USA" in Larsson, M (2000) "Sverige kan bli världsledande"

reactively or in a preventive fashion, research from Australia suggests that younger consumers bought products reactively and older consumers were more inclined to buy products for prevention although no such indications can be seen in this study.

Discussing *who* the functional food consumer is in the respective groups few saw themselves; rather there was a tendency to indicate other groups, although this was not the case with the group of younger women and the athletes/younger men group. Other groups believed to be interested were; individuals with a healthy lifestyle, well educated, high income, women 25-35 and teens as they were believed to be more receptive to new foodstuffs. Comparing with earlier studies in Sweden this is somewhat contradictory indicating that older (55+) respondents and respondents between 17 and 34 were more receptive. However the results are in line with results from other countries where middle-aged women, high education and high income groups were seen as the predominant consumers. Regarding the teens a study in Germany did see the younger consumers as the most interested group.

The most *important factors* when choosing a confectionary product were said to be price, taste, perceived benefit and to some degree sugar content (seemingly influencing all areas of food choice).

5.2.2 Confectionary

How the consumer of this study understands and chooses confectionary

Discussing *what* confectionary was in the groups; *tasty, unhealthy (fattening, caries, diabetes), addictive, sweet, always craving, always room for, fast energy/pick-me-up, traitorous* and dangerous occurred. Pick 'n mix and chocolate were the dominating types of confectionary mentioned and brand names that occurred included Marabou (chocolate), Fazer(liquorice), Karamell Kungen and Malaco (pick 'n mix).

Summarizing the thoughts concerning *why* confectionary would be bought the following arguments were used; *the good taste, as a treat, necessity, encouragement for children, social, pleasing family members, energy boost/to stay awake and something extra*. Around this discussion point there was almost complete consensus between the groups with only minor additions or deviations.

The following situations were thought of discussing when confectionary was bought; in the afternoons, watching a film or going to the movies, Fridays (although becoming more and more an everyday product), having visitors, holidays, birthdays or when feeling poorly/feeling sorry for one self. The same situations reoccurred in every group with few exceptions. For example it seemed evident that Fridays had replaced Saturdays as the primary day for families to buy confectionary.

Summarizing the discussion on *who* consumed confectionary, it was generally believed that individuals from *all walks of life* ate candy occasionally, but the high consumers were believed to be; *children, teenagers and families with children*.

Important factors when shopping for confectionary included; *taste, freshness, price, brand* and *getting the “original”*. Brand was on most occasions an important insurance that you did not get the bad tasting copy.

Results from other empirical studies

That candy is desired and consumed by everyone in society was indicated in an American survey from 1996 where the level of penetration of the market was calculated to 96.3% with total penetration of the children’s segment, 90% of 18-34 year olds and 80% of adults 35 years of age or older.¹⁵⁵ A survey in the UK indicated that there is a feeling among parents that they are controlled by the manufactures and retailers regarding their feeding habits. Between mothers in the UK there was however a major split between those who saw themselves in control over what their children ate and those who feel that they were controlled, as well as those feeling content that they were doing a good job and those who felt guilty about what their children ate. The largest group of mothers in the survey (40%) consisted of “Compromisers” believing that their children should eat a well-balanced diet although with a desire to allow them to enjoy food and treats occasionally. In this group mothers were willing to negotiate a sound solution with their children.¹⁵⁶ Additionally in the UK chocolates are being marketed addressing different genders. This is due to results indicating that women tend to buy confectionary as an indulgence or treat, whereas men see it more as a snack food.¹⁵⁷

Discussion

As there is little research regarding the confectionary consumer this comparison will not be as complete as the one on functional food. Regarding *why* confectionary was bought the reasons reoccurring were; *the good taste, as a treat, necessity, encouragement for children, social, pleasing family members, energy boost/to stay awake and something extra*. Comparing with earlier studies indicating that men chose confectionary as a snack and women more as a treat did not appear in this study with several female respondents describing situations where confectionary was a snack and male respondents claiming they bought candy to give themselves a treat. However the discussion on confectionary regarding *who* indicated that the top consumers were seen as teens and children although consumers were found in all walks of life. This is similar to a survey in the US where the penetration for confectionary was almost total with between 100 to 80% ranging from children and teens to elderly.

5.2.3 Functional confectionary

Discussion from the focus group study

After discussing functional food and confectionary the third topic of the focus groups was the combined product, functional confectionary. Summarizing the thoughts that occurred when

¹⁵⁵ Lawrence, T (1997) “A quick look at candy”

¹⁵⁶ Anonymous (2004) “Don’t just put eggs in your basket”

¹⁵⁷ Charles, G. (2002) “The battle for the sexes”

introducing the idea the *primary response* in most groups was *positive* imagining a product that was *tasty but with reduced impact on your wellbeing*, thus some sort of low fat or sugar free product. The idea that this type of confectionary should be sugar free occurred in three out of the five groups. Further, in most groups, one of the first occurring ideas was *confectionary fortified with vitamins and minerals* believing this would sell well as you could get a *slight benefit even though eating confectionary*.

There was although a belief that this type of modification of confectionary was *illogical* not believing that confectionary should be connected with health and that *confectionary is supposed to be unhealthy*. Tasty and healthy was also seen as an awkward combination with one participant saying that he thought it sounded like *combining jellybeans and liver*. Additionally a couple of participants of every group saw a *risk of over consumption of confectionary* as it now *could be argued that it was good for you*. A way of avoiding this, proposed in one group, was to make confectionary healthier without the consumer's knowledge in an effort to reinforce public health, although understood that this might not be an option as no money could be made this way. Another risk was getting an *overdose of fortifications*, just eating one favourite kind of confectionary. To avoid overdoses an idea in three of the groups was to introduce age limits on functional candy with a special product line for adults and children respectively. Further there were also discussions regarding the *name of the product*. It was believed that it could not be called candy, as that would be contradictory to norms associated with the product. It was also argued that it should be placed somewhere else in the store not confusing it with the "real" confectionary. A *morale dilemma*, debated in four out of the five groups, was seen in *selling a product, targeted at children as healthy, although containing lots of sugar*.

Discussing *why* a functional confectionary would be bought, the main argument was that as long as you are eating confectionary you might just as well *get some sort of benefit/it might be less harmful than the existing alternative*. Another reason was believed to be that this type of confectionary would *ease the conscience of parents* as they now were giving their children something slightly better than normal candy. Knowledge was although seen as a barrier to consumption as people in general were believed not to be as well educated regarding the benefit of different fortifications and functions of different ingredients.

Discussing *when* a functional confectionary product might be bought, it was not seen as such a bad idea with e.g. a *fortified confectionary* product when *having a cold or feeling poorly*. Further it was seen as an option, in one group, when trying to get *children to take their vitamins and minerals* making it slip down easier if hidden in candy. Another idea was *after a work out in need of fast energy and maybe a vitamin kick*.

Discussing *who* that would buy functional confectionary, groups mentioned most frequently were *parents and health conscious individuals*. Other alternative groups were *teens* and/or *people wanting to change the way they were eating*.

When discussing *different types of confectionary* it was interesting to note that in most cases *chewing gum* was not seen as confectionary as it already *had a function* and this was the main reason for the purchase of this product. A similar understanding existed concerning *throat*

lozenges as this product was also *purchased when having a specific condition* and need for a specific function. As a consequence of this, chewing gum and throat lozenges were seen as more susceptible to other functional ingredients.

Presenting *different functional options in confectionary* several interesting discussions occurred which are presented in figure 5.1. Comparing different groups it was interesting to note was that the group of men 27-28 were the most susceptible while women of the same age were the least inclined to accept the alternatives. The academics requested proof and were more interested in confectionary that could give an immediate reaction. Men 42 to 67 argued more often that a change in lifestyle was needed rather than a product addressing a symptom. The parents were not too interested in giving their children functional confectionary although it was not seen as completely impossible, as it might be slightly better for them. Regarding different functions the most acceptable was somewhat surprisingly *skin benefiting* followed by *stay awake* in second and *stomach benefiting* in third. These results are not measured in any way but rather an approximation based on the attitudes surfacing during the different discussions. However they do give an indication to the thoughts concerning different functions in the different groups.

| Group \ Function | Men 27-28 | Women 25-32 | Academics 38-50 | Men 42-67 | Parents 30-36 |
|-------------------------|---|--|--|--|--|
| Stay awake/ alert | Yes, for students | No/Yes, could be dangerous | Yes, with caffeine, immediate reaction | Yes/No, special occasions, for students | Yes/No, alternative to caffeine drinks, for students/ working late |
| Cold soothing | No/Yes maybe if sugar free, strengthening the immune system | Yes/No, vitamins/ minerals in lozenges | Yes/No, eaten pre-emptively, wanting proof of effect | Yes/No, might try, confectionary eaten when feeling sorry for one self | Yes, if tasty, confectionary eaten when feeling sorry for one self |
| Stomach benefiting | Yes/No | No, absurd combination | Yes/No, could be useful | Yes, after lunch at work | Yes, if reliable, when feeling stressed |
| Cardiovascular diseases | Yes, good fat better than bad | Yes, Omega-3 better than ordinary fat | Yes/No, better fat could be better but implies that candy is healthy | Yes/No, better fat is better for you although change of lifestyle | No/Yes, better to change lifestyle |
| Skin benefiting | Yes, for women | Yes/No, Interesting but strange | Yes, for younger women | Yes, for women | Yes/No, for women |
| Hunger decreasing | Yes, good to loose a kilo or two | No, Dangerous | No/Yes dangerous/ maybe when not having time to eat | No/Yes, maybe to keep your energy level even | Yes/No "girl thing" |

Yes = all participants positive
 No = all participants negative
 Yes/No = more participants positive than negative
 No/Yes = more participants negative than positive

Fig. 5.1 Attitude to different functions in confectionary

Other empirical studies

Few studies have been carried out concerning consumers' functional confectionary choice. The most recent was conducted by Urala and Lähteenmäki in which it was concluded that *consumers did not see functional food as one homogenise category* but rather as products within a certain category. Further the authors concluded that *healthiness* could be seen as a multidimensional choice factor having *different meanings in association with different food products*. Taste was also a key factor dominating the consumer's choice of any food product. Figure 5.2 indicates how the consumers chose confectionary products with xylitol when interviewed with the help of a means-end chain technique. Xylitol was initially seen as good for your teeth thereafter an association with disease prevention as well as balanced economy and healthy life was made before finally rendering in an easier life. Taste is also seen as important leading to a short moment of enjoyment. Additionally package size and variety influences the decision to some degree as well as uncertainty.¹⁵⁸

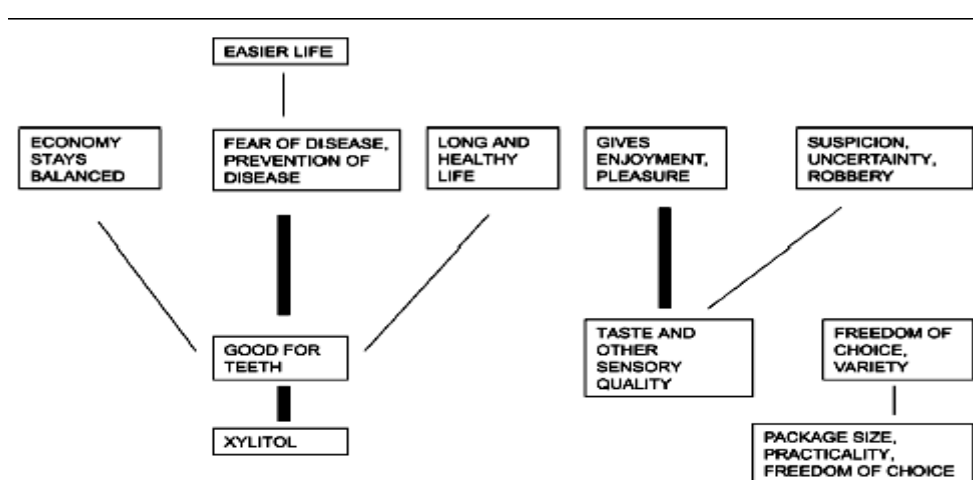


Fig. 5.2 Reasons behind consumers functional food choices in the aspect of candy¹⁵⁹

Further according to a study carried out by van Kleef et al there was a discrepancy between scientist and consumers choice of suitable carriers of functional ingredients. *Consumers judge carriers like chocolate, ice-cream, chewing gum and soup as significantly more suitable carriers for several functional ingredients than food technologists*. Further according to the study this would indicate "...that food technologist probably fails to foresee new segment of the functional food concept".¹⁶⁰ Additionally a survey in the US in 1995 indicated that taste was the prime factor for testing and repurchasing confectionary with a better-for-you message. There was also a willingness to pay extra for this type of product and one of the most interested groups, in products with reduced calories and fat, were female teens. However the reason for not buying this type of product was the feeling of eating something artificial.¹⁶¹

¹⁵⁸ Urala, N. & Lähteenmäki, L. (2003) "Reasons behind consumer's functional food choices"

¹⁵⁹ Urala, N. & Lähteenmäki, L. (2003) "Reasons behind consumer's functional food choices"

¹⁶⁰ van Kleef, E. et al (2002) "Consumer oriented functional food development" p.99

¹⁶¹ Hall, R. (1995) "Taste is key to selling 'light' confections"

The National Confectioners Association, in the US, where also of the opinion that taste was the number one factor for success of confectionary with a “wellness” message.¹⁶²

Concerning who the functional confectionary consumer is, the predominant tend to be baby-boomers, who are educated about the link between diet and health.¹⁶³ The functional food trend is also believed to bringing the adults, back to the candy shelves.¹⁶⁴ This is agreed upon by Kruger believing that the way to bring baby-boomers back to the candy segment is through organic and functional candy.¹⁶⁵ According to Denise Morrison general manager at Kraft foods snack division quoted in Candy Industry a trend fuelling confectionary consumption is the increase in snacking where consumers are looking for personal pleasure and rewards providing stress relief and variety in taste. This is also combined with a search for better-for-you products with balance, moderation and a positive nutrition message including sugar free products and products high in energy. The main segments interested in these products are believed to be baby-boomers which are educated, affluent and are seeking longevity and health.¹⁶⁶ Although, the trend is not all positive, as consumer groups especially see some attempts by the confectionary industry as cynical marketing schemes trying to ride the functional food wave although not explicitly saying that the product is functional. As an example the claim from Mars that chocolate can reduce the risk of heart decease.¹⁶⁷ Further the launch of Pfizer’s “Body Smarts” a line of fortified snack bars only stayed on the market for one year before being withdrawn. However, when it was launched, it was seen as groundbreaking in the area of mixing fulfilling the consumers’ desires for indulgent products and the demand for wellbeing foods. The reason for the products failure on the market is believed to be partly associated with competitors’ response, lowering prices, and the fact that consumers rather picked the familiar treat when faced with the choice indicating the consumers caution when it comes to products marketed as healthier. However other bars originating from a “better-for-you” product line have done well. The reason for this is believed to be that these products make sense to the consumers as you need to be careful not to market the product with contradictory messages.¹⁶⁸

Discussion

Similar ideas can be seen between the focus groups and earlier research. Taste is mentioned as the primary factor in both. Similar fears seem to exist as well regarding the “unnaturalness” of the idea and that it to some degree can be seen as a marketing trick. The contradictory message has also been noted in earlier contemplation as commented in the journal Candy Industry. Further functional confectionary seems to be chosen in a similar manner as functional food, however with taste as an even more important factor. Regarding *whom* that wants to buy the products earlier studies indicate baby-boomers and individuals with interest

¹⁶² Hall, R. (1996) “Taste is still the key ‘wellness’ market”

¹⁶³ Vreeland, C.C. (1999) “Nutraceuticals Fuel Confectionery Growth”

¹⁶⁴ Kruger, R.M. (1999) “Like Kids in a Candy Store”

¹⁶⁵ Anonymous (2000) “No Pain Just Gain”

¹⁶⁶ Anonymous (2001) “Snacking's popularity expands confectionery opportunities”

¹⁶⁷ McCawley, I. (2000) “Health Interests”

¹⁶⁸ Rogers, P. (2002) “Reevaluating nutraceuticals”

in health. In the focus groups the most often mentioned group were parents of younger children (although not in the group of parents) and individuals interested in health wanting to sooth their conscience by eating candy with reduced negative impact on his/her wellbeing.

5.3 Functional food versus confectionary and functional confectionary

Comparing the two products of functional food and confectionary one can see a number of similarities and differences. The main difference is that functional food is regarded as healthy and confectionary as unhealthy. This has been commented on in every group saying that it feels illogical. Another similarity that has been mentioned in most groups is the fact that both functional food and confectionary is bought when feeling poorly. In the case of confectionary to cheer one self up and in the case of functional food to address the actual condition, for instance a cold. In figure 5.3 the main arguments and comments made under *what, why, when, who, important factors and finally different types of confectionary* have been gathered for a more comprehensive overlook of the main differences and similarities as perceived by the consumers in the five focus groups.

| Group \ Function | Men 27-28 | Women 25-32 | Academics 38-50 | Men 42-67 | Parents 30-36 |
|-------------------------|---|--|--|--|--|
| Stay awake/ alert | Yes, for students | No/Yes, could be dangerous | Yes, with caffeine, immediate reaction | Yes/No, special occasions, for students | Yes/No, alternative to caffeine drinks, for students/ working late |
| Cold soothing | No/Yes maybe if sugar free, strengthening the immune system | Yes/No, vitamins/ minerals in lozenges | Yes/No, eaten pre-emptively, wanting proof of effect | Yes/No, might try, confectionary eaten when feeling sorry for one self | Yes, if tasty, confectionary eaten when feeling sorry for one self |
| Stomach benefiting | Yes/No | No, absurd combination | Yes/No, could be useful | Yes, after lunch at work | Yes, if reliable, when feeling stressed |
| Cardiovascular diseases | Yes, good fat better than bad | Yes, Omega-3 better than ordinary fat | Yes/No, better fat could be better but implies that candy is healthy | Yes/No, better fat is better for you although change of lifestyle | No/Yes, better to change lifestyle |
| Skin benefiting | Yes, for women | Yes/No, Interesting but strange | Yes, for younger women | Yes, for women | Yes/No, for women |
| Hunger decreasing | Yes, good to loose a kilo or two | No, Dangerous | No/Yes dangerous/ maybe when not having time to eat | No/Yes, maybe to keep your energy level even | Yes/No "girl thing" |

Yes = all participants positive
 No = all participants negative
 Yes/No = more participants positive than negative
 No/Yes = more participants negative than positive

Fig. 5.3 Attitude to different functions in confectionary

5.4 Summary

Comparing the discussion on the three product types, two that are on the market today and one new idea, several interesting discussions occurred. Concerning functional food the knowledge of the term was not that extensive, none of the recipients knew about the Swedish voluntary code on functional food and that these products actually had to be tested and had a special logotype. Rather all products providing you with something extra were seen as functional food. The image of these products that the consumers held also made it natural, in most cases, to choose the product reactively, treating a special condition e.g. a cold or temporary stomach problems, rather than preventively. Most groups did show an interest to use these types of products, although the most sceptical were found among the groups of academics and older men, not seeing the purpose of the product, in many cases, believing it to be a marketing scheme. These results are in line with other national and international studies indicating similar ideas.

Concerning confectionary most consumers saw this as something high in taste but unhealthy. It was eaten as a snack, when in need of energy or as a treat. Friday was the prime candy day after a week of hard work, although the product was becoming more and more an everyday event troubling some participants. Confectionary was also believed to be eaten by all social groups and ages although with high consumers among teens and families with children. These results are hard to verify with other studies although the impression that confectionary has a high degree of penetration seems to be accurate, judging from studies in the US. Although it could not be indicated if a specific gender ate candy in a special fashion as indicated by the study in UK.

When finally discussing the functional confectionary product the participants first seemed either excited by the idea, not grasping the concept asking for an explanation, or not liking it at all. The individuals seeming interested imagined a product high in taste with low impact on health. Those not seeming to understand found the combination utterly illogical, not seeing how one could mix health and taste or confectionary with health. This reflected the image regarding the two previously discussed product groups with clashing qualities. Besides the difficulty to combine other concerns were raised, primarily the risks of over consumption of confectionary and additives. Another question discussed in three of the groups was the morality of selling a product with a wellness message although high in sugar and other ingredients that were seen as unhealthy, one participant saying; well if it sells the company will probably not care about the moral issues. This problem was seen as particularly high when it came to products targeted at children. However some positive aspects were seen when discussing different possible functions in confectionary although differing between groups and the most acceptable function being, somewhat surprisingly, skin benefiting. Further when discussing different types of confectionary chewing gum and throat lozenges were seen as more suitable carriers for most functions since these products already had a function of some sort, thus agreeing with the norms and standards in these already existing products. Concerning who that would be interested in this type of product, families with young children were mentioned in four out of the five groups and again health consciences people were believed to be interested. Additionally there was agreement, from a couple of members of every group, seeing it as a possible way to get something good out of eating candy besides the good taste. In most groups there was also a discussion as to the name of the product. It could not, according to most, be called confectionary as it would be in disagreement with all the values and norms associated with this concept, it was also suggested that the product was to

be placed in some other section in the grocery store so that it would not be confused with the “real“ candy. Further in line with earlier research the consumers in the focus group study did not seem to see functional food as a separate category but rather as healthier food within a category.

Especially from the discussions in the last section on functional confectionary I will now continue the paper with a presentation of theories that will help to explain the observed behavior and reactions in the five groups as well as in earlier empirical studies. The issues that I believe will be of special interest to discuss is why the combination was so hard to accept. The actual factors behind the choice will also be interesting to compare making use of theories on food choice. Further the problem of whom that is seen as the prime consumer regarding factors such as lifestyle and cohort will be of interest.

6. Theory

My selection of theory is first and foremost guided by the aspects appearing in the focus group discussions and earlier research. The theory chapter begins with a discussion of consumer behavior in general. Thereafter diffusion of innovations theory, involvement, company social responsibility and corporate brand theory follows. Additionally a discussion about healthy and unhealthy consumption and segmentation theory is presented before a more extensive section on food choice theory rounds of the theory chapter.

6.1 Consumer behavior

This chapter begins with a short presentation of the three levels of consumer behavior to introduce the reader to this field of research. As presented in the methodological chapter there are several perspectives within this field of research although the three general levels are similar. Looking at the model in figure 6.1 from the outside and in, the *social-cultural level* engulfs influences such as social class, lifestyle and culture. The *interpersonal level* considers reference groups and opinion leaders, such as co-workers, family and friends but also famous people. The *individual level* considers personal factors such as motivation, perception, past experiences and attitudes.¹⁶⁹

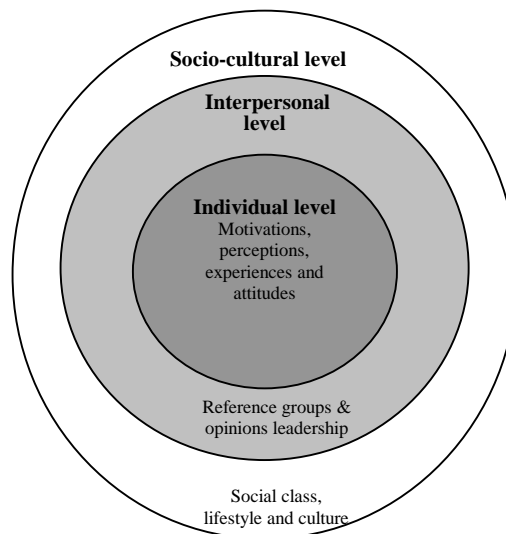


Fig. 6.1 The three levels of consumer behavior¹⁷⁰

6.2 Factors influencing diffusion and adoption of innovations

An innovation is defined by Rogers as “an idea, practice, or object that is perceived as new by an individual or other unit of adoption.” Further the diffusion of innovations can according to

¹⁶⁹ Dubois (2000) *Understanding the Consumer A European Perspective* p.10f

¹⁷⁰ *ibid.*

Rogers be defined accordingly “...process by which an *innovation* is *communicated* through certain *channels* over *time* among members of a *social system*.”¹⁷¹ The part of this theory that will be regarded closely in this paper is the social systems adoption of the innovation. Although to begin with an introduction to different types of innovations will be made, as this helps the further understanding of the adoption.

6.2.1 Different types of innovations

If regarding innovations from a consumer perspective there are generally three types of innovations regarding the effect on consumption patterns. The first is a *continuous innovation* which has little or limited effect on the consumption patterns of the consumer in general e.g., regarding confectionary, a new bag size. The second type is a *dynamically continuous innovation* which has a prominent effect on the consumption patterns. This type of innovation often involves a new technology, changing the way we consume. An example of such an innovation is the cell-phone. The third type with the largest impact on consumption patterns is a *discontinuous innovation* which is so new that it never has been heard of before. Examples include airplanes and copy machines radically changing consumption patterns. These three archetypes are to be regarded as markers on a continuum with many other alternative mixes in between.¹⁷²

Besides the three presented categories, innovations can also be regarded considering the type of benefit they provide. *Functional innovations* provides new functions or benefits to the consumer e.g. making an, until recently, stationary appliance mobile. An *aesthetic or hedonic innovation* appeals to our pleasure seeking, sensory or aesthetic needs, this type of innovation involves several different product groups such as music, clothing styles as well as *new types of foods*. The third and final innovation type regarding benefits is *symbolic innovations* affecting the consumer as they bring new social meanings to the market place. They can be limited to certain parts of the population thus indicating group membership and coherence. As with the former category of innovations, these categorizations are similarly to be regarded as stereotypes where mixes can occur. An example of such a mix is nutritionbars designed to provide both the nutritional functions of protein and carbohydrates with the sensory pleasure of taste.¹⁷³ Additionally according to Klein earlier products are often used as design ideas for innovations as they provide many solutions to aesthetic and functional goals e.g. the railway-car, before its invention, was instead pulled by horses as a stagecoach, although when the train came it was seen as a discontinuous innovation.¹⁷⁴

A type of innovation which does not give immediate results is know as a *preventive innovation* and takes longer time to diffuse within a social system, due to the difficulty to demonstrate its effect and relative advantage. The preventive innovation is something a consumer adopts at one point in time in order to prevent that some unwanted future event will

¹⁷¹ Rogers, E.M. (1995) *Diffusion of Innovations*, p.10-11

¹⁷² Hoyer, W.D. & MacInnis, D.J. (2001) *Consumer Behavior*, p.481f

¹⁷³ Hoyer, W.D. & MacInnis, D.J. (2001) *Consumer Behavior* p.482f

¹⁷⁴ Klein (1987) in Moreau C.P et al (2001) “Entrenched knowledge structures and consumer response to new products”

occur. Although the consumer cannot conclude if this event would have happened anyway, so the relative advantage is very difficult to appreciate.¹⁷⁵

6.2.2 Adopting or resisting innovations

According to Rogers the individual experiences' a number of innovations characteristics that has an impact on the subsequent rate of adoption as they affect the perceived risk of a new idea in a social system.¹⁷⁶

The first is *relative advantage* which describes to what degree an innovation is perceived better than the idea it is meant to succeed. Of importance is not the objectively seen advantage but rather the subjective belief of the individual consumer. The factor involves denominators such as; low initial cost, a decrease in discomfort, social prestige and the immediacy of the reward. Which of the factors that is of most importance differs between innovations. The higher the experienced relative advantage is, the quicker the rate of adoption.¹⁷⁷

The second characteristic is *compatibility* describing to which degree an innovation is perceived to be consistent with the existing values, past experiences, and needs of a possible future adopter. A new idea that is not compatible with the social system will not be adopted as quickly. The compatibility with values and beliefs is an important factor. Different norms in a social system can effectively slow or block the diffusion of an innovation. The name, shape and color of the innovation can also affect the compatibility having different meanings in different languages and cultures.¹⁷⁸

The third characteristic is *complexity* regarding how difficult the innovation is to understand and use from a consumer perspective on the complexity-simplicity continuum. Innovations can be more or less clear in their meaning to potential adopters. Innovations perceived as more complex will be adopted more slowly.¹⁷⁹

The fourth factor is *trialability* describing to which degree an innovation may be tested, on limited bases, prior adoption. Examples of trialability include samples that can be tested before purchase. If the possibility to experiment prior purchase exists there is a chance for consumers to learn by doing therefore increasing the rate of adoption. Trialability is more important to innovators and early adopters, as later adopters get their information from these groups.¹⁸⁰

¹⁷⁵ Rogers, E.M. (1995) *Diffusion of Innovations* p.70

¹⁷⁶ Rogers, E.M. (1995) *Diffusion of Innovations* p.15f

¹⁷⁷ Rogers, E.M. (1995) *Diffusion of Innovations* p.212

¹⁷⁸ Rogers, E.M. (1995) *Diffusion of Innovations* p.224-236

¹⁷⁹ Rogers, E.M. (1995) *Diffusion of Innovations* p.242f

¹⁸⁰ Rogers, E.M. (1995) *Diffusion of Innovations* p.243f

The fifth and concluding factor is *observability* which is to what degree an innovation can be observed by others. A consumer is more likely to adopt an innovation, the more visual the result is.¹⁸¹

Summarizing, an innovation with; higher perceived relative advantage, higher degree of compatibility, less complexity, higher degree of trialability and higher degree of observability, will be adopted faster than others. These described factors are, according to Rogers, the five most important qualities explaining the rate of adoption.

Further according to Rogers the consumer passes through five steps before adopting an innovation described as *the innovation-decision process* which can be defined as “an information-seeking and information-processing activity in which the individual obtains information in order to decrease uncertainty about the innovation”. The first step is *knowledge* which occurs when an individual gains knowledge of the existence of the innovation as well as some basic understanding of its functions. The second step is *persuasion* which is when a consumer forms a favourable or unfavourable opinion about the innovation. The third step is described as the *decision* and is when an individual engages in activities that lead to the subsequent adoption or rejection of the innovation. Thereafter *implementation* occurs as the consumer uses the innovation. Finally *confirmation* arises as the consumer reinforces an innovation-decision already made. The steps can be taken in different order e.g. when decision is made before persuasion and can also take different amount of time, for different individuals.¹⁸²

The degree of involvement an individual holds towards an object can also influence the choice regarding the time it takes from knowledge to implementation. This can be very individual and can be described according to three different levels depending on the attitude towards an object. To begin with *cognitive attitude* is based on the consumer's *beliefs* about an object, secondly *behavioral learning* reflects an individual's attitude to *do* something in regards to the object, and finally *affect* which reflects the consumer's *feelings* about an object. Three different outcomes can be achieved depending on what the attitude is based on following different *hierarchies of effects*. Following the *standard learning hierarchy* consumers approach a product decision as a problem-solving process with the steps of; beliefs – affect – behavior before forming an attitude based on cognitive information processing. Regarding the *low-involvement hierarchy* the consumer does not have a strong initial preference, acts on limited knowledge and forms evolution after product trial following the steps of; beliefs – behavior – affect, before forming the attitude based on the learning process from the trial. Finally the *experimental hierarchy* is when the consumer acts on the bases of their emotional reactions regarding an object following the steps of; affect – behavior – beliefs before reaching an attitude based on hedonic consumption.¹⁸³ Figure 6.2 describes the different hierarchies.

¹⁸¹ Rogers, E.M. (1995) *Diffusion of Innovations* p.244f

¹⁸² Rogers, E.M. (1995) *Diffusion of Innovations* p.161ff

¹⁸³ Solomon, M.R.(2003) *Consumer Behavior Buying, Having, and Being*

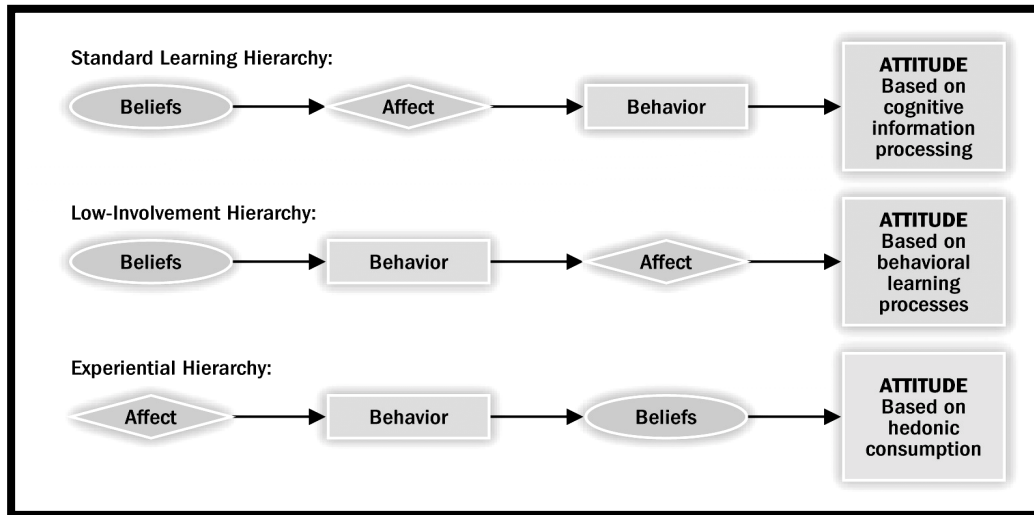


Fig. 6.2 Three Hierarchies of Effects¹⁸⁴

The *social system* in which an innovation is being diffused can, according to Rogers be described as “...a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal”. Such a system can consist of individuals, informal groups, organizations and/or subsystems. The social systems structure influences the diffusion process in several ways and composes a boundary for the spread of the innovation. Factors affecting the diffusion within a social system can be; norms on diffusion, opinion leaders and change agents, types of innovation-decisions, and the consequences of the innovation. Further the social *structure* within a system can, according to Rogers, be defined as “the patterned arrangements of the units in a system”. This arrangement infuses stability and regularity to the human behavior within a system and allows the prediction of behavior to some degree. Another factor influencing the diffusion within a system are *norms* which are described as a set of established and accepted behavioral patterns within a system and can be a *barrier to change* existing at any level in a social system.¹⁸⁵

Food and health

As previously seen in the empirical material regarding functional confectionary the question of mixing two products with contradictory qualities can be difficult. To extend this discussion and to establish a theoretical point of view on the matter I will introduce the research of Östberg who discusses the question of *what healthy or unhealthy food is*.¹⁸⁶ Definition of what constitutes healthy and unhealthy eating is, according to Östberg, often carried out by the natural sciences although the healthiness of different products often are reliant on political, social and cultural aspects influencing the human, as a social being, shaping what to think about e.g. different food products. Further what is seen as healthy or unhealthy is a matter of constant change influenced by new findings and recommendations from the scientific and medical community. Continuing, according to Östberg, health can be seen as “...relational in that it bridges a person’s existing state with a favourably looked upon future

¹⁸⁴ Solomon, M.R.(2003) *Consumer Behavior Buying, Having, and Being*

¹⁸⁵ Rogers, E.M. (1995) *Diffusion of Innovations* p.24ff

¹⁸⁶ Östberg, J. (2003) *What’s Eating the Eater?*

state¹⁸⁷ making any definition on health relative to the individuals actual and future state of health. However what is known as healthy and unhealthy is often related to specific products and is taken for granted by everyone from specialists to consumers. Healthy food has also the meaning of “It feels good to eat it” rather than “I feel good when I eat it” as it might be difficult to directly relate diet and a sense of physical wellbeing, according to the scholar. The time between eating something healthy and improved wellbeing influences consumers, as the alternative to eating something that will either improve health or will help to avoid a future condition, is risk. Thus, as the connection between what has been eaten and your wellbeing, with most health products, takes time to be revealed, the safe alternative then is to buy healthy products.¹⁸⁸ How consumers are influenced by and relate to food and health in Sweden and US was studied by Östberg in his dissertation. The results indicate that a value paradox occurs as there is a discrepancy between what is desired and desirable to eat. The consumers of the study were rather clear over “...of what they would like to eat, or rather what they would like to like to eat...”. The problem for the participants, according Östberg, is thus that the desired foods are not desirable and foods that should not be eaten such as “e.g. fast food, chips and candy” are desired.¹⁸⁹ Figure 6.3 describes the relation between healthy, unhealthy, not unhealthy and not healthy food consumption indicating the paradox and anxiety that consumers experienced when it comes to food and health.

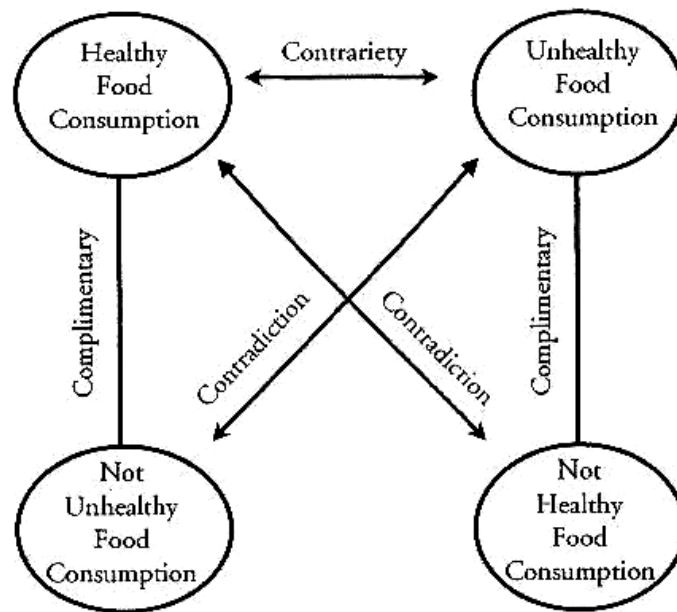


Fig. 6.3 Food and health

CSR

Another theoretical area that can add to the understanding of some of the discussion in the empirical study is company social responsibility (CSR). According to the International Organization for Standards (ISO) CSR can be defined as “ ‘ a balanced approach for

¹⁸⁷ Östberg, J. (2003) *What's Eating the Eater?* p.76

¹⁸⁸ Östberg, J. (2003) *What's Eating the Eater?* p.74-78

¹⁸⁹ Östberg, J. (2003) *What's Eating the Eater?* p.175

organizations to address economic, social and environmental issues in a way that aims to benefit people, communities and societies’ “.The main issues addressed by CSR are:

- Human Rights
- Work place issues
- Unfair business practices
- Organizational governance
- Environmental issues
- **Marketplace and consumer issues**
- Community involvement
- Social development ¹⁹⁰

Concerning influence on consumer behavior little is known about the effects of CSR on the consumer. According to recent research it is suggested that there is a positive relationship between CSR actions and consumers’ attitudes toward companies and its products.¹⁹¹ However several surveys indicate that consumers care about the ethical values of a company, but few actually place ethics at the top of their list when it comes to actual purchasing decisions. Concerning food shopping the main factors driving the actual purchasing of a product, in the US, was price, taste and expiration date, not ethical issues.¹⁹²

Corporate brand and the perceived fit

As discussed perceived fit and compatibility with norms and expectations in society are important factors for consumers’ adoption of innovations. For a company thinking about launching a product with a new and contradictory message compared to earlier products the impact on corporate image and brands cannot be overseen. Brands have evolved from being; marks denoting ownership, image building devices, to symbols associated with key values, means to construct and individuals identity, or a reference for a pleasurable consumption experience. Further corporate brands bring with them the ability to use the culture and vision of a company as a part of the unique selling proposition as well as the necessity for ideas to be rooted in all parts of the organization.¹⁹³

The importance of brands has thus increased and to change them radically, as if a confectionary company would start making products not before seen as healthy, might be risky. If the company chooses to use brand extension when launching a new product the upsides are the relative lower costs as well as the shorter amount of time needed for a launch. Although there are a number of factors that affect the success of a brand extension. According to Parker when analyzing the fit, two components are of importance; first the similarity

¹⁹⁰ Leonard, D. & McAdam, R (2003) “Corporate Social Responsibility”

¹⁹¹ Sen, S. & Bhattacharya, C.B. (2001) “Does Doing Good Always Lead to Doing Better?”

¹⁹² Doane, D (2005) “Beyond corporate social responsibility: minnows, mammoths and markets”

¹⁹³ Hatch, M.J. & Schultz, M. (2003) “Bringing the corporation into the corporate branding”

between the typical product of the company and the new product planning to be launched, second the consistency between the new product and the parent brand.¹⁹⁴ Concluded by Marínez and Chernatony in their study, on sportswear brands, was that products not related to the typical products of the company will have a negative effect on consumers' perceptions of the brand image. However, if the parent brand name is strong, the general brand image can, to a higher degree, be maintained. To be able to achieve this more emphasis has to be put on the parent brand rather than on the new extension when communicating the new product to the consumer. Further it was conceived that, if the familiarity and perceived quality of the brand as well as the extension was high, success of the new product was more likely. Although the consumers perception of the extension as a good fit with the parent brand as well as the consumers attitude towards the new extension were of importance for the ultimate success.¹⁹⁵ Understanding the limitations of a corporate brand is up to senior management and mistakes can dramatically reduce the value and image of the brand if the consumers or other stakeholders experience a “promise-performance” gap between expectations and performance.¹⁹⁶

6.3 Segmentation theory

According to Rao and Steckel segmentation can be defined as “identifying group of consumers who behave differently in response to a given market strategy.”¹⁹⁷ Further the scholars suggest two major options for segmentation, however both are normally necessary for increased accuracy. The first are *descriptor* variables identifying who that could be interested in a specific market strategy. The descriptors include; *demographics* describing; age, gender, number of children, stage in lifecycle etc. Complementing demographics are *socioeconomic variables* such as; income, education, occupation and social class. *Psychographics* complements the descriptors with variables such as; personality, attitudes, interests, opinions and lifestyle. Secondly, but not less important, are the *behavioral* variables describing different benefits that are sought by the consumer from the product. Regarding new products, *benefits* that appeal to different consumer groups, are important to clarify.¹⁹⁸

6.3.1 Segmentation of adopters

According to Rogers, adoption of innovations takes different amount of time for different individuals depending on the degree of innovativeness. The individual who is first to adopt an innovation are called *innovators* thereafter follows *early adopters*, *early majority*, *late majority* and finally *laggards*.¹⁹⁹ Figure 6.4 describes the rate of diffusion among the different adopters as well as the relative size of each group.

¹⁹⁴ Parker (1991) in Martínez, E. & de Chernatony, L. (2004) “The effects of brand extension strategies upon brand image”

¹⁹⁵ Martínez, E. & de Chernatony, L. (2004) “The effects of brand extension strategies upon brand image”

¹⁹⁶ Balmer, J.M.T. & Gray, E.R. (2003) “Corporate brands: what are they? What of them?”

¹⁹⁷ Rao, V.R. & Steckel, J.H. (1998) *Analysis for Strategic Marketing*, p.23

¹⁹⁸ Rao, V.R. & Steckel, J.H. (1998) *Analysis for Strategic Marketing*, p.23-42

¹⁹⁹ Rogers, E.M. (1995) *Diffusion of Innovations* p. 263ff

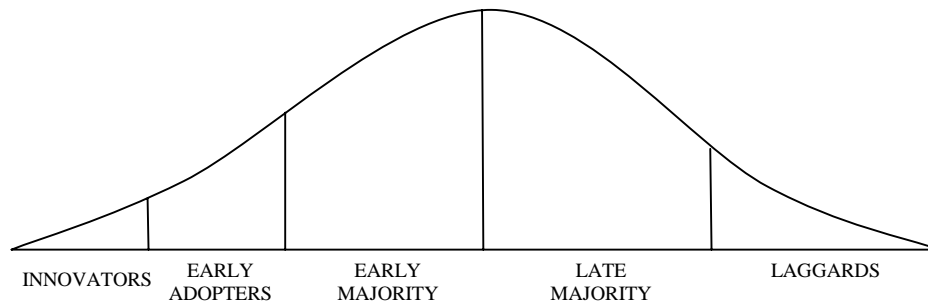


Fig. 6.4 Adoption based on innovativeness²⁰⁰

The most interesting issue for this paper when looking at segmentation of adopters is to find the “innovators” and the “early adopter” as these groups are very important in the future diffusion of an innovation. To be able to pinpoint *the innovator* one can study the *innovativeness* of an individual which is described as to which degree a consumer (or other entity) is earlier in adopting an idea compared to others in a social system. Further adopters in the same category have a lot in common regarding social status, usage of mass media and how they learn about new ideas from others.²⁰¹ Characteristics of the *innovator*, according to Rogers, are to be venturesome and have an almost frantic interest in new ideas. Innovators can be geographically spread and do have an understanding for technological innovations. Further there is a desire to be daring and risky, accepting occasional setbacks. Even if the innovator may not be respected in the local social system he/she plays a vital role in the diffusion process by introducing new ideas into a system from outside its boundaries. The *early adopters* are more accepted in the local system and have the greatest degree of leadership within a social system. Other adopters seek advice from this group as they are not too far ahead of the majority and thus are seen as a reliable source regarding innovations and thus decrease the uncertainty for the majority. The *early majority* are described as adopting ideas just before the average majority, they are rarely opinion leaders although holding an important position in the system, constituting one third of the adopters. The *late majority* adopts ideas later than the average consumer and can be described as sceptical. Adoption often is the case of economic necessity or after pressure from peers. The weight of system norms is of extra importance in this group and resources are scarce. Finally the *laggards* are described as having their point of reference in the past deciding the future on what has been done previously. Resources are even more limited than in the previous group, therefore adoption only takes place with certainty that the new idea will not fail. The division into these five categories is, as can be seen, also driven by resources not only attitude to change.²⁰²

Although Rogers being the dominating figure within diffusion theory he is not unchallenged and “the adoption of innovations” has been criticized when it comes to the technological market. According to Saaksjarvi the main problem has been the problem of measuring innovativeness and personal characteristics.²⁰³ Further according to Moreau et al *knowledge* has been seen as one of the most important factors regarding interest for a new product both in

²⁰⁰ Rogers, E.M. (1995) *Diffusion of Innovations* p.262

²⁰¹ Rogers, E.M. (1995) *Diffusion of Innovations* p.22

²⁰² Rogers, E.M. (1995) *Diffusion of Innovations*, p.263ff

²⁰³ Saaksjarvi, M. (2003) “Consumer adoption of Technological Innovations”

psychology and marketing. Existing knowledge regarding *continuous innovations* has been an important factor for the experts as well as the novice's adoption, although experts can experience additional benefits from the innovation. However when it comes to *discontinuous innovations* experts with entrenched knowledge might need information supplementing their knowledge before seeing benefits and subsequently adopting a new product. The results found by Moreau et al suggests that those who are most likely to adopt a discontinuous innovation are individuals with good knowledge about earlier supplementary categories of products or those with good knowledge about both the innovation and supplementary categories. This is explained according to *the primary base domain* which is the existing knowledge base from which a new innovation is assessed, assuming that the continuity of an innovation is compared to existing product categories. Thus knowledge of the primary base domain is believed to be the most important factor for consumers' perceptions of innovations continuity.²⁰⁴ This is somewhat contradictory to e.g. Rogers where it is believed that *innovators* have good knowledge in the product innovation category.²⁰⁵ Further, according to Moreau et al, *mutability* is a related factor indicating the degree of change from an earlier idea. The more immutable an idea is in relation to the primary base domain the more discontinuous an idea is believed to be by the consumer, thus slowing the rate of diffusion.²⁰⁶

According to Gregan-Paxton and Reodder John knowledge is transferred from a familiar domain to the new idea, known as *analogical learning* described as the *knowledge transfer paradigm* influencing an individuals' adoption process.²⁰⁷ According to the paradigm the individual goes through the stages of; access, mapping and transfer. The *access* takes place following knowledge held by the individual in relation to the innovation, e.g. seeing a digital camera and comparing it to a more familiar camera. This sort of connection can also be cued by advertisements and marketing messages. Following access is the *mapping* phase where the consumer uses the primary base domain of knowledge, compares it with the innovation, mapping similarities and eventually getting a broader knowledge base on the new idea dependent on their prior knowledge base. Research has shown that consumers prefer relation-based mapping instead of attribute-based as the former can be transferred into goal-relevant attributes about how the innovation will perform. However novices, with a little knowledge within a field, rather rely on attribute-based mapping, such as visible attributes. Finally in the *transfer* stage the actual information is transferred from the base domain to the new object. Underlying the transfer is a belief that similarities found in some areas will be applicable to others as the mapping continues.²⁰⁸

Saaksjarvi extends the identification of adopters even further. Building on former research by among others Moreau et al the researcher suggests that as a complement to *knowledge* about the product *compatibility* or perceived *fit* between the adopters values, lifestyle and previous experiences and the innovation, should be regarded already at the *knowledge* stage of the

²⁰⁴ Moreau C.P et al (2001) "Entrenched knowledge structures and consumer response to new products"

²⁰⁵ Rogers, E.M. (1995) *Diffusion of Innovations*, p.263f

²⁰⁶ Moreau C.P et al (2001) "Entrenched knowledge structures and consumer response to new products"

²⁰⁷ Gregan-Paxton, J. & Reodder John, D. (1997) "Consumer Learning by Analogy – A model of Internal Knowledge Transfer"

²⁰⁸ Gregan-Paxton, J. & Reodder John, D. (1997) "Consumer Learning by Analogy – A model of Internal Knowledge Transfer"

innovation-decision process (presented above, by Roger). Further, Saaksjarvi suggests, even if the innovator does have knowledge of the new innovation it is not conclusive that he/she will adopt, as suggested by Leonard-Barton²⁰⁹ and agreed by Rogers writing “knowing about an innovation is often quite different from using a new idea”.²¹⁰ Continuing Saaksjarvi suggests that lifestyle is an important factor for adoption, referring to research on technological innovations by Holak and, Holak and Lehmann, strongly indicating this fact.²¹¹ Subsequently Saaksjarvi suggests that the identification of adopters should be based on knowledge and compatibility with the generic labels of: technovators (experts in both core and supplemental area), supplemental experts, novices, and core experts. Although many similarities with Rogers can be the aspect of compatibility add a new dimension to the identification of innovators. Figure 6.5 describes the different categories.

| | | | |
|------------------|-----------------------------|--|--|
| KNOWLEDGE | | | |
| | Technovators | *Interested solely in technology, not in adopting the innovation. *Switching prone | *Interested in both technology and adopting the innovation *More loyal towards innovation |
| | Supplemental Experts | *Interested in new technology as an extension of their existing knowledge but do not see a reason for adoption | *Realize that the innovation would be beneficial to use |
| | Novices | *Positive towards the innovation but do not feel that they are the target group for the innovation | *Open towards the innovation, willing to learn, usually asks for assistance from knowledgeable peers |
| | Core Experts | *Resistance towards the innovation, not willing to learn *Distrust towards technology | *Less resistance towards the innovation, willing to learn *Sees the opportunities with new technology |
| | | | COMPATIBILITY |

Fig. 6.5 Adoption likelihood based on knowledge/compatibility²¹²

6.3.2 Lifestyle segmentation

The so far presented theories and research helps to identify factors which are important when finding adopters of innovations. To extend this knowledge regarding identification of specific food related segments that would be more feasible to adopt, this section introduces two possible ways to segment food consumers regarding lifestyle and health. The idea of a wellness lifestyle is not new. Ardell discussed the matter meaning that not all health-related behaviors are constant but rather many individuals select a behavior to maintain their health

²⁰⁹ Leonard-Barton (1995) in Saaksjarvi (2003) “Consumer adoption of Technological Innovations”

²¹⁰ Rogers, E.M. (1995) *Diffusion of Innovations* p.167

²¹¹ Holak (1988); Holak and Lehmann (1990) in Saaksjarvi, M. (2003) “Consumer adoption of Technological Innovations”

²¹² Saaksjarvi, M. (2003) “Consumer adoption of Technological Innovations”

or to improve it.²¹³ To address the issue of identifying health related lifestyles, research by Granzin et al will be used.²¹⁴ The research of Granzin et al was based on usage of a model called HPM (Health Promotion Lifestyle) developed by Pender and associates from 1987 to 1990. The model was tested with a quantitative technique in the US, rendering in the identification of six lifestyles based on health-related behavior relevant to marketing decisions, modifying factors such as demographics, cognitive-perceptual factors and cues to action. The six identified lifestyles included four with positive bias towards health and two with less health interest and they are as follows:

1. *Exercisers*; this group of individuals are, beyond having an interest for exercising, interested in nutritional aspects of food choice, such as reading labels and taking nutritional cooking classes. Despite this, the group has difficulties finding a nutritious diet. The demographic profile of this group is; better educated, predominately younger and less likely to be homemakers.
2. *Recently reformed*; the goal for the individuals in this group is to improve their physical condition. They have recently made a health examination resulting in changes in their diet regarding nutrition. They define health in term of wellness, use vitamin supplements, and feel responsible to pursue a health lifestyle although finding obstacles to exercising. Demographics indicates; older, married and female homemakers.
3. *Support seekers*; have recently had health-related counseling, regarding weight-loss, exercise and nutrition. They have understood that they can lead a healthy lifestyle but they still find barriers to and little interest in exercising. They also lag in following a healthy diet and consume junk-food quite often. Their demographic profile is; less-educated, married, females.
4. *Health enthusiasts*; this group has a clear orientation towards healthy nutrition, shopping at designated healthier stores, been examined professionally, diet and exercise regularly. These are predominantly older, married and home-oriented.
5. *Uninterested*; these individuals simply lack interest in health issues such as exercise and/or a healthy diet seeing barriers to exercise and a healthy lifestyle. They are predominantly better educated, younger, less established positions in life and less likely to be homemakers.
6. *Imprudent smokers*; this group consist of the least health interested individuals. They follow an unhealthy lifestyle, with high consumption of tobacco, junk-foods and snacks. They do most of their shopping in convenient stores. The predominant features of these individuals are; younger, less educated and less established males.

Similarities can be seen between the previous presented lifestyles and the one Brunsö et al has developed through several studies both in Europe and other countries.²¹⁵ The five *lifestyle related segments* regarding food, according to Brunsö et al, are:

²¹³ Ardell (1977) in Granzin, K.L. et al (1998) “Marketing to consumer segments using health-promoting lifestyles”

²¹⁴ Granzin, K.L et al (1998) “Marketing to consumer segments using health-promoting lifestyles”

²¹⁵ Brunsö et al (2002) “Consumer’s Food Choice and Quality Perception” p.13f

1. The *uninvolved food consumer*; food is not a central aspect in these consumers life's and subsequently the reasons for choosing food are weak and mostly limited to convenience aspects. They normally do not read product information, are not interested in price or cooking. They usually do not plan their meals and therefore snack quite a lot. These are predominantly younger, single, have part or fulltime jobs, average to low income and live in big cities.
2. The *careless food consumer* is similar to the uninvolved consumer in many ways with a similar interest for convenience. They *tend to be interested in new products* and buy these spontaneously as long as they do not require any advanced skills or excessive time in the kitchen. They tend to be younger, more educated, have a relatively high income and are big city dwellers.
3. The *conservative food consumer*; these consumers are not interested in change rather stability and security, thus tradition is an important factor regarding food consumption. Health and taste are of great importance and convenience is not as meals are prepared in a traditional way seen as a woman's chore. They tend to live in rural areas, with a high average age and income and household size is relatively smaller.
4. The *rational food consumer*; is interested in many aspects when shopping such as product information and price. They tend to use a list when doing their shopping and plan their meals. Self-fulfilment, security and recognition are also of importance influencing food choice. Predominant features of these consumers are women with families, they tend to live in midsize towns, relatively many of them do not work and the education level differs between countries
5. The *adventurous food consumer*; are very interested in cooking and are constantly looking for new recipes, new food products and new ways of cooking which is seen as an creative and social process for the whole family. They want high quality in food products and self-fulfilment is an essential part of food as it is seen as an important part of their lives. These consumers tend to be relatively younger, household size above average and have a high level of income and education.

6.3.3 Benefit segmentation

According to Haley benefit segmentation is “an approach to market segmentation whereby it is possible to identify market segments by casual rather than descriptive factors”. Additionally Haley exemplifies his idea of benefit segmentation with an example of how to segment toothpaste. With the main denominator being benefit additionally demographic strength, special behavioral characteristics, preferred brands and lifestyle characteristics are regarded finally rendering at the four segments of; sensory, sociable, worrier and independent.²¹⁶ A development of the benefit segmentation is the conjoint analysis where the consumer is forced to make a trade of between different benefits.²¹⁷ According to Rao and Steckel the benefit a company decides to provide to the market can determine its entire marketing strategy.²¹⁸

²¹⁶ Haley, R.I. (1968) “Benefit Segmentation A Decision-Oriented Research Tool” in Enis, B.M. et al (1991) *Marketing Classics* pp. 226-233

²¹⁷ Gunnarsson, J. (1999) *Portfolio-Based Segmentation and Consumer Behavior* p.37

²¹⁸ Rao, V.R. & Steckel, J.H. (1998) *Analysis for Strategic Marketing* p.41

Summarizing the segmentation framework three important factors have been identified as most useful when regarding functional food and functional confectionary consumers. First of all *knowledge* of the innovation as discussed by Rogers but also complementary knowledge of the product categories that the new idea can be based on, as discussed by Moreau et al. Further Saaksjarvi discussed the addition of *compatibility* at a similar stage in the adoption process as knowledge as this factor alone cannot decide adoption, agreed upon by Rogers. Finally the benefit sought is according to Rao & Steckel one of the most useful segmentation techniques and feels like a natural choice when the product investigated is based on additional functions. These contemplations are summarized in figure 6.6.

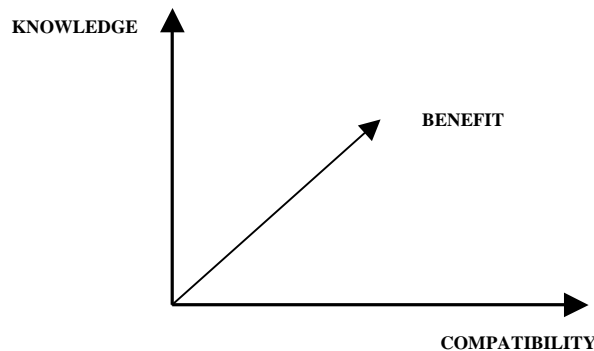


Fig. 6.6 Segmentation framework

6.4 Food choice

The theory on food choice complements and helps in the understanding of important factors considered when choosing different types of food. Therefore this section will introduce different food choice theories as well as describe the development over time. Bareham introduces three general factors influencing food choice. The first are the *physical factors* such as geography, season, economics and food technology. The second are the *social factors* including; religion, social class, education in nutrition and advertising. The third are the *physiological factors* containing; heredity, allergies, therapeutic diet acceptability and nutritional needs. Food choice models can, according to Bareham, be generalized by three major influences; *the food, the individual's perception* finally leading to *acceptance or rejection*.²¹⁹

One of the first models introduced in the area of food choice was Khan's.²²⁰ The model has a vast amount of factors influencing the *Food habits, Acceptances and Preferences*, placed in the centre. There are six major factors in the model. The *intrinsic factors* include features inherent to the food such as; preparation, appearance, taste etc. Opposing these are the *extrinsic factors* including; season, situation, environment and advertisement. Additionally the *personal factors* include; education, expectation, influence from others and mood, among others and the *physiological, biological and psychological factors* are a mix of; age, sex, influences, changes and conditions. The two final factors *socio-economical* and, *cultural and*

²¹⁹ Bareham, J. (1995) *Consumer Behaviour in the Food Industry A European Perspective* p.8f

²²⁰ Khan (1981) in Hamilton et al (2000) "Educating young consumers - a food choice model"

religious are separated from *the personal factors* indicating the relative importance of these. Interesting to note is the absence of a flow indicating how the consumer ends up at decision considering food. The usefulness of the model in this context, are the many factors being introduced, covering almost every possibility, as will become evident when looking at later models.²²¹ Continuing the creation of a flow in models, trying to indicate how the consumer reaches the decision, was introduced by Shepherd.²²²

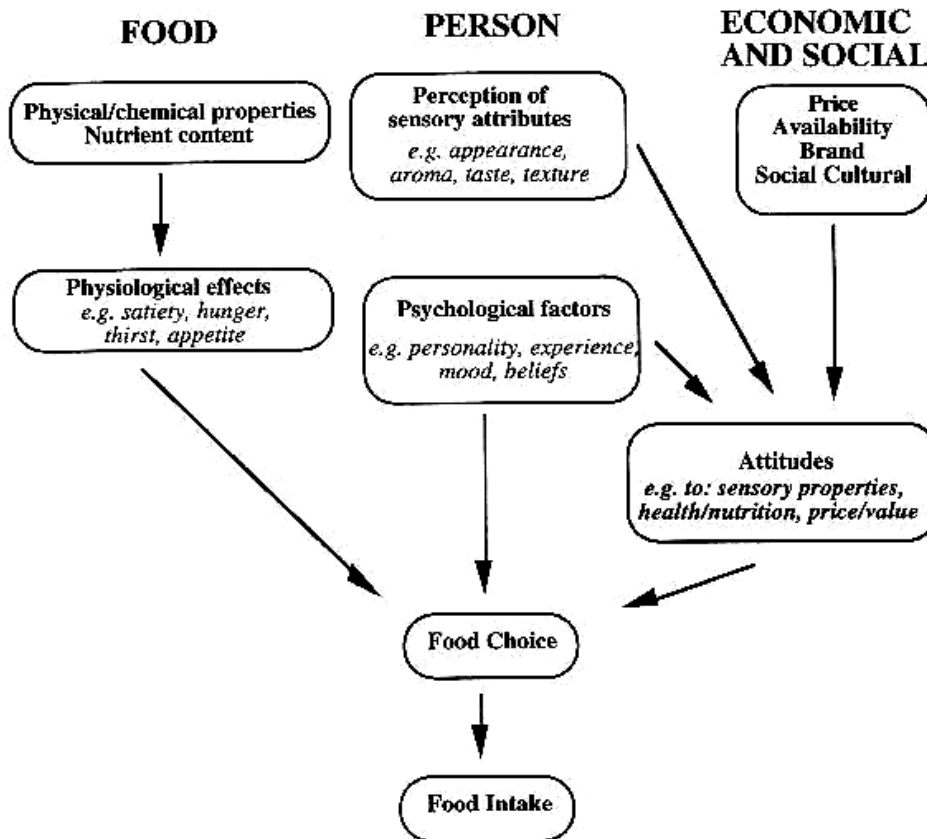


Fig. 6.7 Factors affecting the food choice ²²³

The main difference from earlier models is the introduction of several arrows and boxes indicating a flow or process finally ending up at *food choice* and subsequently *food intake*. This can be seen as a major step forward compared to earlier models consisting of not much more than a number of influencing factors. An additional factor introduced here which has not been present earlier is *Brand*, indicating a change in consumer choice.

A further development of the food choice theory is introduced by Ilmonen who believes that the *situational factor*, although mentioned in earlier models, has not been regarded enough and has a much larger influence than recently believed. According to the researcher there are also two major processes in our lives; *the social and the biological*. These are interconnected

²²¹ Bayer et al (2004) *Konsumentens matval*

²²² Shepherd (1985) in Marshall, D. W. (Eds.) (1995) *Food Choice and the Consumer*

²²³ Shepherd (1985) in Marshall, D. W. (Eds.) (1995) *Food Choice and the Consumer*, p.241

and influence one another. As a consequence of this, culture becomes an important factor in food choice always guiding our choice in different situations whether shopping for a festive or quotidian occasions.²²⁴

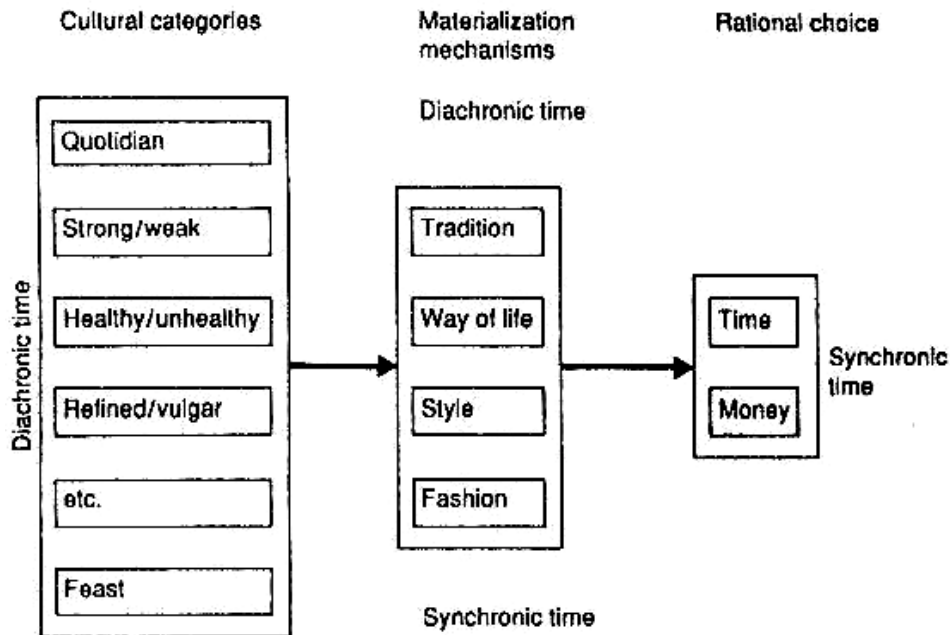


Fig. 6.8 A diagram over food choice²²⁵

According to Ilmonen all the factors in the model are influenced by diachronic (over longer time period) and synchronic (contemporary influence) time. On the left hand side of the model are the *cultural categories* indicating *why* the food is chosen and *what it is for*. To understand *how* we choose, according to Ilmonen, we have to look at the *materialization mechanisms*. *Tradition* is seen as the stabilizing factor and *fashion* the factor driving change, thus these factors are seen as counterparts. *Way of life* indicates the level of involvement a consumer has in his/her food choice and *style* the influence from opinion leaders and other important groups. However the choice is, according to the researcher, finally down to the defining factors, called *rational choice*, of *time and money* influenced by the *explicit situation*. According to Ilmonen, during the weekdays most consumers do not have much time to spend on the purchasing and preparation of food, therefore shopping is quick, buying something we like and are accustomed to, decided in the store by the discount offer of the day. On the other hand during the weekends consumers normally have more time for these activities maybe arranging a party or trying something new and different as there is more time.²²⁶ The model that Ilmonen introduces is interesting because of its different layout and that the factors considered are not as main stream. It is also interesting to see how the choice is made with consideration to tradition and fashion. A functional food product could be considered a fashion product held back, according to this theory, by tradition.

²²⁴ Ilmonen (1990) "Food Choice in Modern Society"

²²⁵ *ibid.*

²²⁶ Ilmonen (1990) in Bayer et al (2004)

A more recent model, with another factor as the main influence, is “The Total Food Quality Model” introduced by Grunert, Larsen, Madsen and Baadsgaard. The researchers believe that *quality is the main driving factor* behind food choice however influenced by a number of others. The model divided in a before and after purchase part tries to go one step further than earlier models in the explanation of consumers food choice, resembling early service marketing models (e.g. Grönroos, 1983) in this aspect. According to Brunsö et al the theory also brings together two areas of consumer research namely; the trade off between giving up something in return for something else (The Theory of Planned Behavior) and the theory of customer satisfaction. Further the model consists of a number of “cues”. Which of these that is of importance to the individual consumer effects the purchase decision and eventually the repurchase decision after an evaluation of expected and experienced quality.²²⁷ Resembling both Ilmonen and Shepherd the purchase is finally down to price and, in this case, quality.²²⁸

One of the latest models within the area of food choice, which also is one of the most comprehensive regarding the process, is Furst et al.²²⁹ The model based on several in depth interviews has a wide range of factors and an indicated flow for the process. It bears resemblance with Shepherd in the shape and with the multitude of factors leading to the final choice. It is consistent with earlier models and theories in its build up around three main categories. The first category is *life course* including; earlier experiences such as historical events, commitment to trends and expectations of the future. The second category consists of a *personal system* which is built up over years of choosing food products. The third and final category in the model is *strategies* which filters the choice, based on habits and references, built up over a lifetime.²³⁰

In comparisons with “The Total Food Quality Model” this model, according to Bayer et al, has a weakness in that it does not have any type of feedback and lacks brand as a component of influence. As a response to this Bayer et al constructed the conceptual model presented in figure 6.9. The model consists in a broad sense of the categories presented by Furst et al but there are some important alterations and additions. The top part is almost similar while the center of the model, here represented by a prism has been altered with the factors of brand, time, money and knowledge. As argued by several scholars, knowledge concerning choice is an important issue especially when it comes to choosing new foods such as e.g. functional food. Additionally, according to Bayer et al, the importance of the brand in food choice models has been underestimated since the factor is said to be of importance in general consumer behavior models. The other factors placed around the prism influences the selection of the brand, thus making the brand factor a filter influencing the consumer, when it comes to value negotiations involving risk and other related issues, such as satisfaction.²³¹

²²⁷ Grunert et al (1995) in Brunsö et al (2002) “Consumer’s Food Choice and Quality Perceptions” p.8f

²²⁸ Bayer et al (2004) *Konsumentens Matval*

²²⁹ Furst, T. et al (1996) “Food Choice: A Conceptual Model of the Process”

²³⁰ *ibid.*

²³¹ Bayer et al (2004) *Konsumentens Matval*, p.19f

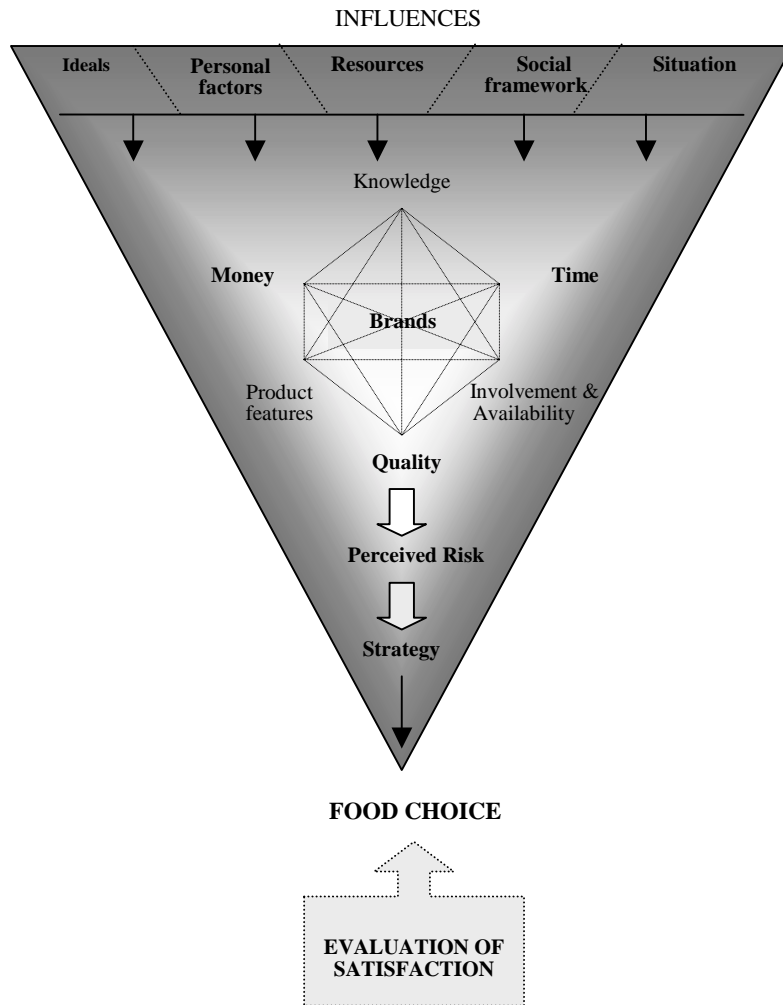


Fig. 6.9 A conceptual model of food choice ²³²

Summarizing this section there has been a gradual development of models concerning food choice over the last 35 years although the major factors and categories can be traced back to the early model of Khan. The development of a flow indicating how the choice goes through different steps is most famously introduced by Shepherd. In the case of Ilmonen the situational factor and the influence of time is given extra attention. “The Total Food Quality Model” introduced by Grunert et al highlights the importance of quality in food choice as well as the aspect of post-purchase evaluation. Concerning Furst et al the model can be seen as summarizing earlier models, with the exception of post-purchase evaluation. Finally the conceptual model introduced by Bayer et al combines the above introduced models with additions especially when it comes to the aspect of the brand which is believed to be of greater importance than priority recognized by researchers.

6.5 Summary

Three major areas of theory have been treated in this chapter. To begin with consumer behavior theory was introduced presenting a basic model with the three factors of; socio-

²³² Modified after Bayer et al (2004)

cultural, interpersonal and individual affecting consumer behavior. Thereafter diffusion of innovations theory was presented including the five characteristics, the innovation-decision process and additional theories, such as segmentation, on how to find the most keen adopters using the degree of *innovativeness* based on knowledge, compatibility and the benefit sought by the consumer. Additionally the relationship of food and health was discussed with the help of Östberg, CSR theory discussing social issues, and Corporate Brand theory, regarding the perceived fit. The last section of the chapter presented food choice theory explaining different factors influencing consumers and how the process of choice has developed over time. In the next chapter I will present the analysis beginning with a presentation of a framework aiding in

7. Analysis

This chapter aims to compare the empirical material with the presented theories. To begin with every separate area is discussed before summarizing in a concluding model of functional confectionary choice.

7.1 Analytic framework

To understand how the different theories are meant to aid in the consequent understanding of the consumer’s functional confectionary choice I constructed the model in figure 7.1. The consumer behavior perspective influences the analysis regarding both adoption theory and food choice theory. As seen, the diffusions of innovations theory with the subsequent adoption is quite complex with a large number of factors affecting the outcome. The left and central part of the model tries to describe this complexity with corporate brand theory (CSR), and the norms and values concerning health and food. From the right hand side food choice helps in the understanding of more food related issues and segmentation theory aids the innovation theory in the explanation of factors affecting who the adopter of this particular product is. Influencing all the theoretical explanations of consumer behavior are the three major macro trends; health, convenience and pleasure, before finally rendering at functional confectionary choice.

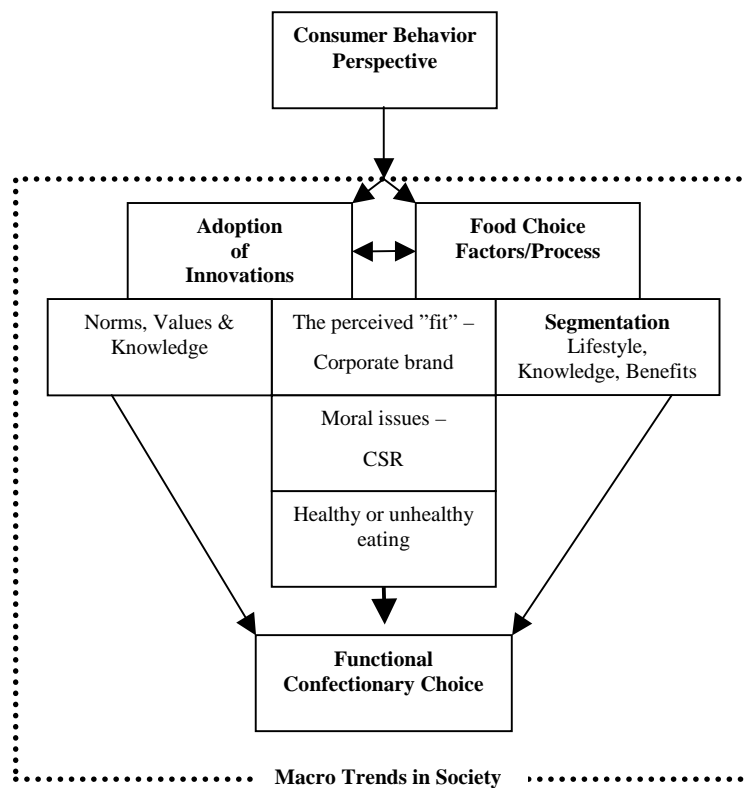


Fig. 7.1 The analytic framework

7.2 Diffusion and Adoption

The diffusion and adoption of functional confectionary is influenced by many different factors. This part of the analysis begins with discussing what type of innovation functional confectionary is as it influences the rest of the adoption and diffusion. Thereafter Roger’s five innovation characteristics will be examined in relation to functional confectionary.

7.2.1 What type of innovation is it from a consumer perspective?

Trying to identify what type of innovation functional confectionary is helps us with the rest of the analysis. From the discussion in the focus group different views were exposed regarding how the innovation was seen. Some of the academics and younger women had difficulty grasping the concept, only succeeding in understanding what it premeditated, after several explanations from the mentor. On the other hand there were participants blankly saying, well that’s nothing new, referring to light or sugar free candy and throat lozenges with vitamins on the market today. However the degree of change in consumption is very much interlinked with the function promoted in the new product. The product could provide a number new of benefits within the category of confectionary e.g. taste and vitamins, taste and extra energy in a convenient package. Addition of vitamins might not be seen as such a big change, as e.g. a bacterial-culture. Regarding benefits, functional confectionary would make the traditionally, mostly aesthetic product of confectionary, move towards new functions. Depending on the function at hand it could be placed anywhere from the right hand side of the continuous scale all the way over to the discontinuous area. Figure 7.2 illustrates how the influence of *change in consumption* can be linked with the *new benefit* of the innovation the “X” illustrates functional confectionary and the “Y” confectionary, thus confectionary with the new benefit of functionality moves from the aesthetic field to the functional also crossing over from being a continuous to being a dynamically continuous or discontinuous product depending on the added function.

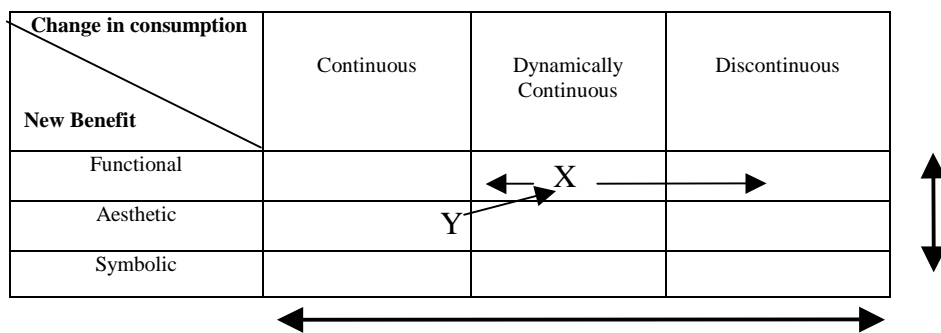


Fig. 7.2 Type of innovation – change in consumption and benefits

7.2.2 The innovation characteristics

The five innovation characteristics presented by Rogers provides many useful perspectives from which the attitude, knowledge and acceptance of functional confectionary can be discussed. Interesting to note is that the participants of the focus group study in a similar manner as in the theory of *analogical learning*, during the discussion, start to divide the information about the new idea into smaller more comparable entities. Although the layout of the discussion can be said to have encouraged this, the learning process was very identical to

the theory. Both relational and attribute *mapping* was used, concerning the combined product, very much inline with the primary knowledge base domain. Examples of this includes how participants in different groups compared *attributes* like taste, price, color and shape in order to find similarities. There was also usage of supplementary knowledge from functional ingredients trying to find common ground on known factors such as Omega-3 etc. Relational mapping did also take place wondering when and how to use the product e.g. “can I eat it with my children” or “it might be handy when travelling”. At the end of the discussions in the focus groups relational mapping can be said to be stimulated by the different examples that were presented as to how and when the product could be useful. This often resulted in that fierce negative ideas were softened as participants actually started to see useful areas of use for functional confectionary. The mapping was based on knowledge of confectionary and functional food finding the two difficult to combine although not completely negative to the idea differing between respondents and functions as will be discussed in the coming sections.

The *relative advantage* seen by consumers of this product is a bit hard to say and varies between different segments (which will be more thoroughly looked into shortly). If the idea is meant to replace or complement existing products on the market, is according to my belief, up to the individual consumer’s perception. However the relative advantage of immediacy of the reward is difficult to provide, not only with functional confectionary, but with all products claiming a health benefit. The innovation, in line with many functional food options, resembles what Rogers calls, a *preventive innovation* which is adopted at one point in time with the belief that some future unwanted event will be avoided, and which takes longer to diffuse within a social system, due to the difficulty of demonstrating the effect. The discussion in several of the focus groups treated this aspect in one way or another. The most explicit example was in the group of academics where one of the participants said that if it is possible to see the effect, as with energizing confectionary, then it is more likely to be accepted by the consumers. I do not believe that she had read diffusion of innovation theory, rather it was an expression of rational thought. Other examples from the focus groups included discussions about wanting proof and to be able to rely on the product. Thus, it seems likely that the more preventive the function of the confectionary is the more reluctant will the adopter be. However this obstacle might be reduced with functional confectionary as consumers are provided with the benefit of taste *and* the possible future avoidance of an unwanted event.

The *compatibility* of the functional confectionary product was the point where most discussions occurred. According to Rogers and Saaksjarvi this is an important factor. If there is a low degree of compatibility with norms, values and previous experiences in a social system, the diffusion can be very slow or might even come to a full stop. There were several objections to the compatibility of functional confectionary with the main objections regarding the combination of functional food seen as healthy and not really tasty and confectionary seen as tasty and unhealthy. Additionally the moral implications of the idea spurred some vivid discussion seeing risks of deception of consumers. The perceived fit with earlier apprehensions of confectionary was also discussed concerning how this would influence future consumption. The following sections will discuss these issues from the perspectives of food and health, moral implications and company social responsibility, and the perceived “fit” between confectionary and health with the help of the corporate brand.

The discussion of how to combine two products of functional food associated primarily with health and confectionary primarily not associated with health, lead to some interesting conclusions comparable with the findings of Östberg. As confectionary was something that was often desired it was not as often desirable. Examples of this were when participants said that they felt that they were addicted to confectionary seeing it as a necessity. When discussing the combination of the two products the first reactions were of excitement imagining a product that could be eaten with a limited effect on wellbeing and with a good conscience. Using the main features of Östberg’s model, the contradiction between unhealthy or not healthy (confectionary) and healthy (functional food) might be bridged by functional confectionary. The reason for this is that it can be seen as a less unhealthy alternative and choosing it will not be as filled with anxiety as the selection of candy might be for some consumers today. The choice of confectionary with some sort of additive reducing the impact on health might be seen, as Östberg puts it, “It feels good to eat” rather than “I feel good when I eat it” as the conscience is less burden although any physical effect might be hard to detect. Examples from the focus group discussions supporting this were the reoccurring comment, that functional confectionary could be an option as it also gave you something beneficial, besides the good taste, when eating it. Figure 7.2 illustrates how functional confectionary finds a middle position between unhealthy/not healthy and healthy/not unhealthy as “less unhealthy” in the mind of the consumer, maybe lowering the anxiety that might be associated with candy consumption.

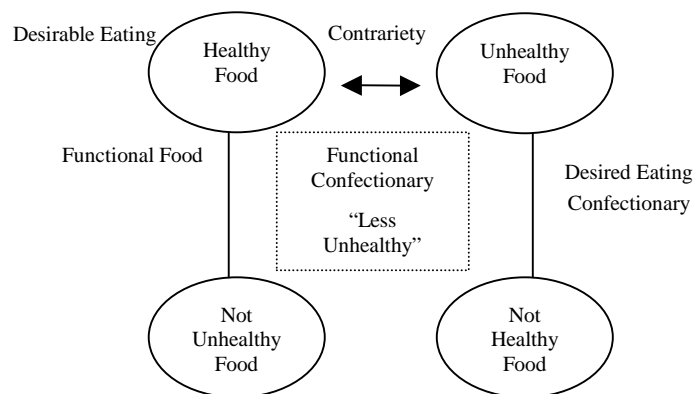


Fig. 7.3 Health, food and confectionary

The *moral and ethical* concerns that were raised during the focus group discussions included the ethics of selling a product normally seen as unhealthy or not healthy with a function indicating some sort of health benefit. The concerns were extra strong regarding products targeted at children and the risk of over consumption of confectionary by “less educated” social groups with a belief that confectionary now was healthy. Using CSR theory to explain these fears, research has shown a connection between a company’s social responsibility activities and the consumer’s apprehension of the company. However even though many consumers say that they are interested in ethical issues, very few according to research, actually follow this belief when doing their shopping. If this is correct the moral implications might be less significant, than expressed in the focus groups, however more research is needed within this area so no definitive answer can be given.

The *perceived fit* of confectionary and health was also an aspect reoccurring during the discussions. It was believed that there was a need to call functional confectionary something

else not mixing ideas of health with a product category associated with pleasure and indulgence. However, as discussed in corporate brand theory, when functions closer to the effect of confectionary were discussed there was a greater degree of acceptability in most focus groups. This is similar to the findings of Martínez and Chernatony where a new product extension had a better chance of success if it was of similar characteristics as the products associated with a brand. As concluded by the scholars, a product not relating to the type of product normally associated with the brand will have a negative impact on the image of the parent brand. However if the parent brand is strong and the perceived quality of the former and new product is high, the impact will be lessened. Additionally findings in Denmark by Poulsen indicate that if there is agreement between the carrier product and the functional ingredient the acceptance is higher. This is somewhat similar to the findings in this study where respondents were reluctant to the idea of getting a health benefit from a product that is not perceived as reasonably wholesome to begin with. Expressions such as “candy is not supposed to be good for you” and “mixing health and taste is like mixing liver and jellybeans” occurred. Additionally it was explicitly expressed in four of the groups (except younger women) that confectionary was eaten to boost your energy level quickly.

Yet another dimension of the compatibility factor of an innovation can be seen in *the degree of involvement* a consumer has when purchasing different products. The degree of involvement can be different for functional food and confectionary thus leading to difficulties when combining the two. During the focus group discussion the most frequently used word to describe candy was taste, on the other hand when discussing functional food, health, was the most common description. Comparing this with involvement theory confectionary seems more likely to be formed by hedonistic attitudes based on feelings thus following the experiential hierarchy where affect/feelings comes first in the involvement followed by behavior and beliefs before rendering an attitude based on hedonic consumption. Regarding functional food it seems like the involvement is more comparable to a process. Examples of this are that participants knew that functional food in some way was healthy, but there were also many questions regarding different ingredients actual function and reliability. One example was Omega-3 which was more or less well known in most groups, although seen in many different products in the grocery store. Consequently if a consumer is going to buy a functional food product it is more likely to be a process following the standard learning hierarchy where the purchase situation is treated like a problem-solving process following the steps of beliefs – affect – behavior before reaching an attitude based on cognition. Thus, if a functional ingredient is put into confectionary the consumer might be confused as a product you used to buy on hedonistic attitude now is more complicated involving health aspects as well. A possible way to get over this obstacle can be product tests as discussed in the forthcoming section.

Regarding *complexity* functional confectionary can be difficult for the consumer to understand, as there are many ideas of possible usage situations including when having a cold to when in need of extra energy. This is however dependent on the function of the product. Energy might be easier to understand, as exemplified recently, compared to cold soothing, thus affecting the diffusion rate of the product. The degree of *trialability* is on the other hand high, since the product is easy to try. In the group of older men, product tests were mentioned as an opportunity to try new food products, indicating some usefulness of this aspect for a functional confectionary launch. The possibility to try the product might affect the hierarchy of effects, rendering an attitude based on learning, maybe reducing some of the negative normative attitudes held to the concept. This factor can thus increase the possible rate of

diffusion. Regarding *observability* of the idea it is not exactly visible but this aspect can be boosted by different marketing activities. One of the participants in the group of older men mentioned that his exercise friends gladly adopted products used by athletes, indicating a possible aspect that can be promoted regarding a sports related functional confectionary.

7.2.3 Segmentation – Who is most likely to adopt?

In this section I will with the help of adoption and segmentation theory try to explain who the most likely functional confectionary consumer could be and which factors that will be of importance for the segmentation of these. As discussed in the theory chapter knowledge and compatibility are the two most important factors for segmenting adopter. Additionally the sought benefit can be important, especially since the innovation is based on adding functions/benefits to the consumer.

The *knowledge factor* influences the ability to understand different positive effects of functions. Regarding that the restrictions on how functional food can be marketed products displayed in stores often promote the ingredient instead of the actual projected effect. Thus if a consumer has knowledge of e.g. Omega-3 and has a favourable attitude towards this ingredient the acceptance of it in other products would be more likely. Consequently the theory of supplementary theory (Moreau et al) can be applicable. The supplementary knowledge in this case is foremost functional food, as knowledge of confectionary almost can be seen as universal concerning penetration etc as indicated in this study and complemented by research from the US. The knowledge level of functional food is lower. As seen in the focus group discussions none of the participants new that functional effects related to specific products had to be tested and approved and had the right to use a special logotype. Rather all types of food with some sort of health benefit were seen as functional. A more logical base of knowledge for the consumer would thus be health rather than functional trying to promote the specific health benefit. Conclusively individuals with knowledge of health should be more likely to adopt.

The *compatibility factor* refers to the “fit” between the innovation and the consumer and can vary depending on sought benefit, norms, values and the perceived fit with lifestyle and the message of health and taste. Regarding lifestyles there are different suggestions as to how to segment consumers, as seen in the theory chapter. Compatibility with the functional part of the functional confectionary can be referred to a healthy lifestyle, wanting everything you eat to be healthy, including the confectionary you eat once in a while as a treat. This was also discussed in the focus groups where it was believed that individuals with a healthy lifestyle would be the most likely to adopt. However the product is complicated, and additional segments could be seen among those wanting to do something to improve their health. Their reasoning could be something like “maybe I should try confectionary with vitamins and minerals, it might although be better for me”. In the focus group discussions examples of this occurred as participants thought that they could benefit from changing to functional confectionary as it might reduce the impact. Explicit examples include participants saying that they thought “people looking for a change” would be interested in functional confectionary as they could be looking for ways to improve their diet also concerning confectionary. Another possible segment not too different from the health interested, are those living an active life doing sports or has a physically straining job. This idea came up in the group of older men where it was believed that an energy-boosting snack that could keep your energy level even

for a longer period of time would be interesting and if it contained some vitamins and/or minerals that would be considered a nice bonus.

The *benefit factor* describes which functions are of interest to different segments. This factor can be useful when looking for which functions are the most desired and by whom. As the results from the focus group study reveals the same function could be seen as giving different benefits. Regarding the athletes they saw the vitamin enriched product I chose to call “cold soothing” as a way of strengthening the immune system. The parents ate candy when they had a cold because they felt sorry for them self thus the vitamins were seen as bonus maybe helping you to get better while your were eating your favourite treat. The same can be said about the “hunger decreasing” option. The athletes saw it as a diet candy, helping to loose unwanted kilos. The men 42-67, saw it as a way to help you maintain an even energy level and the academics thought it might be good when you did not have time to eat. Thus the same function can be seen as giving different benefits to different groups.

Finding inspiration and guidance from Saaksjarvi, Granzin et al and Brunsö et al I have constructed three possible segments based on knowledge and compatibility.

The first are the *health enthusiasts*. I have used the name from Granzin et al as there are some important similarities with their segment. I believe that this group could be interested in functional confectionary as they believe that all food should be healthy even the confectionary they eat occasionally. The knowledge of food and health is good and they are looking for products that fit in to their healthy lifestyle. None of the focus groups fits in to this format completely however two of the athletes made me think in this direction. They said that they made their own muesli, not finding any of the available brands healthy enough, and when they were shopping they were always looking for low sugar, low fat, rich in fibres etc. However they did eat candy although trying not to, thus functional confectionary could fit in to this way of thinking. Additional factors were comments from participants in other groups believing that “those interested in health” would buy functional confectionary.

The second possible segment I chose to call the *actives*. A reason for the individuals in this group to buy confectionary is the energy-boost. They lead an active life doing sports or/and have a physically straining job. I believe that functional confectionary could appeal to this segment in the form of extra energy with vitamins and minerals, supporting their active life. In the focus group I got this idea from one of the participants in the group of men 42-67. He described that his friends liked to buy products like “Power” promoted by athletes and because they gave them an energy-boost after a work out. Others that are leading a hectic life could also fit into this segment as energy was seen as one of the top reasons for buying confectionary in every group.

The third possible segment, are those who believe that they should change to a healthier diet I call these, the *change seekers*. They are aware that they might not be eating the best diet and should maybe change, however they are stuck in a comfortable routine being a bit to convenient to change. For this group, I believe that functional confectionary could be seen as a small step on the way to a healthier diet easing their conscience somewhat. The idea for this

segment, were the many discussion of how functional confectionary could be a healthier option, when eating candy.

Using the framework of Saaksjarvi and modifying it somewhat, I have put the five focus groups and the three possible segments, in figure 7.4, for a more comprehensive view. I have chosen to divide the compatibility axis into functional food and confectionary with those with higher knowledge of functional food more likely to adopt to an already healthy lifestyle and those with less knowledge of functional food more likely to adopt because they want to reduce the impact on there health, thus looking for a change.

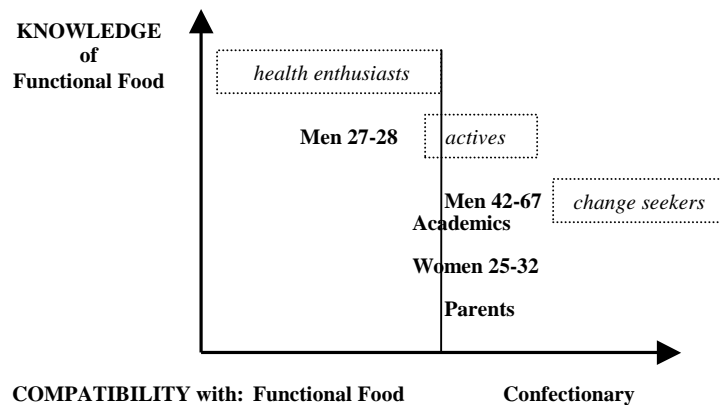


Fig. 7.4 Likelihood of adoption compatibility and knowledge²³³

7.3 Factors influencing functional confectionary choice

In this section the most important factors adherent to the product will be discussed comparing with food choice theory. The factors mentioned most frequently regarding functional confectionary choice were; taste, perceived functional benefit and “fit” between confectionary type and function, with several other, less reoccurring factors. The discussion of factors influencing the choice functional confectionary was however often dominated by taste. In several groups the understanding was that if the product was not tasty, then it would not be worth wile. This has also been concluded in studies on functional food by among others Gray et al and in Sweden by Frank et al. Comparing with food choice models, *taste*, has been seen as an important factor although others such as price, situation (Ilmonen) and quality (Grunert et al) has also been seen as important. That the aspect of *freshness* and the “original” was important regarding candy, is comparable to Grunert et al, and their discussion on quality. Regarding specific *situations*, Ilmonen discusses this extensively, saying that there is a difference between shopping for quotidian or festive situation. This was reflected on in a couple of groups where functional food was seen as something that was bought for quotidian rather than festive situations and one of the participants in the group of women saying, about functional confectionary, “well it’s not something you serve at a party”. Other situations mentioned were; when having a cold (feeling sorry for one self), after a workout (in need of quick energy) and at the office (working long hours). Regarding the *brand* it had differing degree of importance, however regarding confectionary it was seen as a reassurance for

²³³ Inspired by Saaksjarvi, M. (2003) Consumer adoption of Technological Innovations

getting the “original”, thus knowing what you got. Specific factors for functional confectionary included, as mentioned, the perceived functional benefit in addition to other factors. This can be compared to Urala & Lähteenmäki where the associations made by the consumer went from that Xylitol was good for you teeth to finally rendering at an easier life. This is comparable to some of the discussions in focus groups where participants with the help of relation-based mapping tried to see how a future functional confectionary product could be beneficiary, e.g. improved immune system as discussed by the men 27-28 that could be interpreted leading to an easier life if maybe having fewer colds. Another factor influencing the choice, as discussed above, was *ethical issues* making you reluctant to buy a product because it does not agree with your ideals. This was emphasised by one of the women 26-32 saying that she would never buy a functional confectionary product, as she would never want to support a market with a product with such a double message (health although not healthy). Other examples of this factor were the discussions on over consumption believing that candy, now was healthy. The perceived “fit” between confectionary and health was also an important factor. Influencing this was the *type of confectionary* that the function was found in, more accepted if found in chewing gum or throat lozenges. From these contemplations and from inspiration from other food choice models I have decided to create the conceptual model illustrated in figure 7.4. The model describes from the left hand side *socio-demographic factors & compatibility* including gender, age, income level, employment, family situation and lifestyle. These factors can indicate the possible outcome in the next box. Thereafter the *personal ideals & knowledge factors* describe particular factors for functional confectionary such as; moral issues, perceived fit between carrier product and function and benefit from a function, risks of over consumption and over dosage as well as knowledge of functions. Next comes *situation and benefit sought* indicating how the specific situation and sought benefit influences the choice. Finally the *decision* even though functions are involved it is down to taste and price before rendering a final choice.

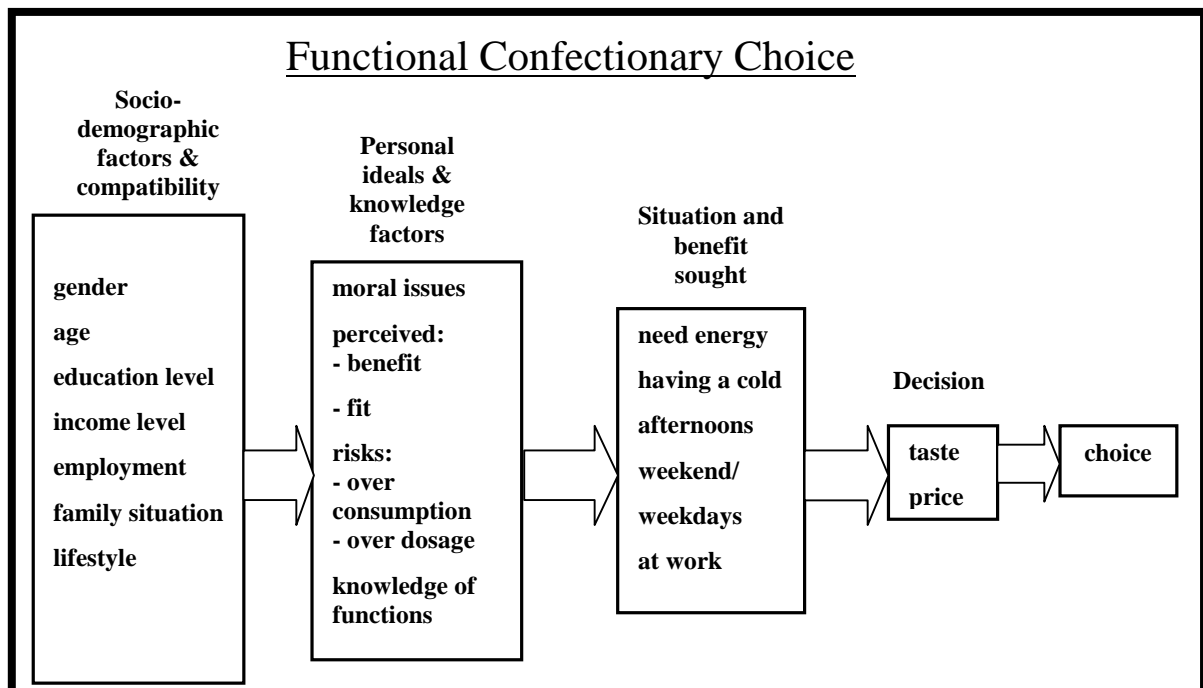


Fig. 7.5 Functional confectionary choice

8. Conclusions and managerial implications

In this chapter I will answer my research question and presented as well as discuss the most important findings in this study furthermore suggestions of future research are purpose. Additionally the most interesting findings from a management point of view are summarized.

This study has in line with its explorative purpose found a number of areas that would be interesting for further research. The innovation of functional confectionary caused problems for the consumer regarding the mix of health (functional food) and taste (confectionary). When comparing findings from the focus groups with indications from earlier research several similarities could be seen but also some differences. Among the similarities were the consumer's knowledge about functional food and what functional food was. The participants showed low awareness of the fact the functional food is a regulated product that has to be tested prior to launch and that these products have a special logotype. Functional food was rather seen as healthy food in general with anything from fortifications to lactobacillus. Confectionary was primarily seen as healthy and a source of energy. The discussion on different functions in confectionary did show a higher interest for benefits closer to the original product of confectionary.

Comparing the empirical findings with theory diffusion of innovations theory helped with the explanation of the observed behavior. The relative advantage was difficult to find with consumer concerns for the efficiency and reliability of the product as the benefit was preventive. The compatibility between functional food and confectionary representing the contradictory qualities of health and tasty or unhealthy caused debate regarding norms and values. Östberg's theory on consumers' food and health perceptions helped to explain some of the observed difficulties. Using the model on food and health functional confectionary was seen as a possible midway post between unhealthy and healthy eating reducing some of the anxiety Östberg observed when it came to consumers' food choice regarding health. Additionally there were moral concerns raised as to the ethics of introducing a product as healthy even though containing sugar and other ingredients, not seen as healthy. This was especially seen as a problem if the product was targeted at children. This was partially explained using CSR where research has shown an interest from consumers regarding CSR-activities although the influence over consumers' actual food choice is believed to be low. The compatibility between confectionary and health was also discussed from the aspect of the corporate brand. Consumers were concerned that confectionary no longer would be the same high in taste product it is seen as now, with alternative names being introduced making sure that a mix up between confectionary and functional confectionary would be avoided. Corporate brand theory indicated that the fears observed in the focus groups were in line with earlier research where product types not earlier sold by a company causes unease among consumers which reflects negatively on the company and brand.

Regarding who that would be the most likely to adopt functional confectionary it was concluded that the three variables of knowledge, benefit and compatibility with norms, values and lifestyle were the most important segmentation factors rendering three possible segments.

The first segment called *health enthusiasts* are believed to be interested in functional confectionary as everything they eat including occasional candy should be healthy. The second segment called *change seekers* are believed to be individuals that would like to change their diet in a healthy direction although stuck in a convenient routine. For these individuals functional confectionary would be bought as it could be seen as a small step towards a healthier diet. The third possible segment named the *actives* has a hectic lifestyle doing sports and using a lot of energy consuming confectionary as a source of fast energy. These individuals are believed to buy functional confectionary as a source high in energy maybe with some sort of healthy benefit.

Comparing the empirical findings with food choice theory several similarities can be found as to the main factors influencing the choice. In the case of functional confectionary there was a high interest for taste although additional findings were; moral issues, the perceived “fit” between carrier product and function, as well as the risks of over dosage and over consumption. Additional influences were; situations, sought benefit, when the product was suitable, and what the perceived benefit of different functions, from a consumer perspective. Finally however it seems like the final choice is down to taste and price before rendering a final choice.

Several interesting future areas of research have been identified, a suggestion is quantitative tests of the segments and the usefulness of the model, as the findings from this study are limited in terms of generalization. Additionally a more in-depth understanding of moral issues and the impact on a corporate brand and identity could be looked into from an organizational point of view.

8.1 Managerial implications

The idea of functional confectionary was difficult to understand for many consumers although when presented with different options the reluctance did recede somewhat. High interest was shown for functions close to that of the original product of confectionary, thus high in energy. Additionally consumers were more accepting of functional benefits if they were found in chewing gum or throat lozenges as these products according to the consumers were bought when you wanted a function and that these product types were subject to change in a higher degree than traditional confectionary. The difficulties of combining health and taste were observed to be in line with values and norms of the society in general. Ways of reducing norms dissonance can be to promote functional confectionary with different messages for different segments pushing the perceived benefit for each, e.g. extra energy or a way to reduce the impact on general health and to use product samples during a launch. Additionally, I believe, that in order to be successful with functional confectionary taste must be the top priority, not only when it comes to product development, but maybe more importantly when it comes to communicating the message to the consumer. This is due to a seemingly firm belief among consumers that something healthy can not be tasty and that confectionary primarily is a tasty product in the mind of the Swedish consumer. The product should thus more have the message “It feels good to eat” rather than “I feel good when I eat it” trying to reach the consumers conscience.

Further I believe that the results of this study indicate that the function first launched in confectionary should be in line with earlier associations with confectionary. The one of the most acceptable connection seen in this study is between confectionary and energy boost, thus the first type of confectionary should be in this area. Additionally I don't think the first product should be targeted at children, as there were fears that companies would try to deceive consumers, especially children, as they are not able to make their own choice. Another important issue is the impact on the corporate brand, although nothing conclusive can be said there were indications that there will be a risk of bad impact on the corporate brand if the new product does not agree with the consumer's image of it. But it can also be a question of first mover advantage and having the strength to be market driving, moving into new areas before anyone else, and maybe teaching the consumer a new benefit rather than to wait for the consumer to ask for it.

A final word on functional confectionary is that as the Swedish consumer today finds the combination of confectionary and health difficult, it also stirs an interest and in line with the quote, at the beginning of this thesis of the Roman orator Marcus Fabius Quintilian, *both our minds and stomachs seem to be similarly whetted by change.*

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Appendix

Appendix 1: Diskussionsguide

Inledande framförande och hälsning

Välkomna till den här fokusgrupp diskussionen. Jag hoppas alla har hunnit läsa igenom och fundera lite över diskussionsmaterialet. Tanken med diskussionen är att ni som grupp ska diskutera utan att jag ska lägga mig i speciellt mycket. Det är alltså ni som sätter agendan och jag för in frågor om jag anser att det är nödvändigt.

Introduktionsfrågor

Functional food

- Hur ni ser på begreppet functional food, vad betyder det för er?
 - Varför?
 - Utveckla

- Vilka functional food produkter känner ni till?
(probi/proviva etc)

- Varför köper ni (alt skulle ni köpa functional food)?
 - Utveckla

- Vilka för- och nackdelar ser ni med ff produkter?

- När köper ni functional food (alt skulle ni köpa ff)?

- Vem tror ni köper functional food produkter idag, ser ni några speciella grupper?
(t ex barnfamiljer, unga, äldre, pensionärer, högutbildade/lågutbildade, idrottare etc)
 - Varför just den gruppen/erna?
 - Varför är den egenskapen viktig? Smak+pris+socker

- Om ni letar efter produkter söker ni då specifikt efter funktionen i första hand?
 - Händer det att ni köper en produkt ni burkar köpa och väljer en funktion när ni står vid hyllan? (t ex vid inköp av bröd; ska köpa bröd – ser på hyllan en produkt märkt omega-3 – väljer produkten av nyfikenhet)

- Ser ni olika typer av functional produkter på marknaden?
(mejerivaror, bröd, godis, juice, etc) (riktade mot barn, vuxna, speciella åkommor)
- Är det någon funktion som ni tycker verkar bättre än någon annan?

- Är det någon egenskap i functional food utbudet som ni saknar på den svenska marknaden?
(cure, care)

[Mentor – sammanfatta kort inför gruppen]

- Är det något ytterligare som ni skulle vilja tillägga angående functional food?

Övergång 1 – Functional till konfektyr

Jag skulle nu vilja att vi går över till att diskutera konfektyr/godis.

- Hur ser ni på godis, vad tänker ni på när ni hör ordet?
- Varför just dessa egenskaper? (unna sig, onyttigt, etc)

- Varför köper ni godis? (mätta hunger för att unna sig)

- Vilka för- och nackdelar ser ni med godis?

- När köper ni godis? (under veckan, till fest)

- Vem köper godis? (barn, vuxna etc)
- Varför just dessa målgrupper?

- När ni köper godis letar ni efter något speciellt i första hand?
(varumärke, smak, mängd, pris, extrapris)

[Mentor – sammanfatta kort inför gruppen]

- Är det nått ni anser att vi har missat angående godis?
- Inga ytterligare tillägg?

Övergång 2 Konfektyr till kombination

Ok, Jag skulle nu vilja att ni i gruppen kombinerar dessa två diskuterade begrepp. Alltså functional food och godis.

- Hur ser ni på en kombination av dessa begrepp?
 - Varför?

- Skulle ni kunna tänka er att köpa en produkt som kombinerar dessa två innehåll?
 - Vilka fördelar skulle ni se?
 - Vilka nackdelar skulle ni se?
 - Skulle ni se några risker?

- Ser ni några grupper som skulle kunna vara mer intresserade av en sådan kombination än andra?
 - Varför just dessa grupper?
- Varför skulle man köpa en sådan produkt?
- När skulle man köpa en sådan produkt?
- Vilka egenskaper skulle ni vilja se hos en sådan produkt?
 - hålla sig vaken,
 - förebygga förkylning [vitaminer, ginseng, echinea, etc]
 - lugnar magen
 - bra för hyn
 - hunger minskande
 - minskar risken för hjärt-/kärl sjukdomar

[Mentor – sammanfatta kort inför gruppen]

- Är det något ni anser att vi har missat i diskussionen angående en kombination av konfektyr och functional food?

Avslutningsfrågor

[Mentor – sammanfatta kort inför hela gruppen]

- Är det någon som anser att vi har missat något i någon del av diskussionen?

- Är det någon som skulle vilja tillägga något?

Ok, då skulle jag vilja tacka er för ert deltagande och innan ni går får ni gärna lämna er ålder på detta ark!

Återigen tack!

Ni har varit till stor hjälp för min fortsatta forskning!

SLUT

Appendix 2: Diskussionsunderlag – fokusgrupp diskussion

Magisteruppsats, företagsekonomiska institutionen, Ekonomi Högskolan,
Lunds Universitet

Hej!

Jag vill börja med att tacka för att ni vill ställa upp i gruppdiskussionen och jag hoppas och tror att det blir trevligt och intressant även för er, förutom att det är en stor hjälp för mig!

Den typ av gruppdiskussion som ni ska delta i kallas ”fokusgrupp”. En fokusgrupp diskussion är en metod som används vid studier inom bl a samhällsvetenskaper och hos företag. Tanken med metoden är att få en inblick i vad olika befolkningsgrupper tycker och tänker om något samt att få uppslag för vidare studier och forskning. Själva diskussionen är tänkt att fortlöpa utan några större ingrepp från den ansvarige, utan det är alltså ni i gruppen som ska stå för samtalen. Vid tillfälle kommer jag dock att gå in och introducera en ny fråga, vinkling eller idé för att stimulera. Betonas bör också att inga åsikter är felaktiga och alla tänkbara uppslag och idéer får och bör ventileras!

Diskussion kommer att behandla två delområden för att avslutas med en kombination av dessa. Vi inleder med en diskussion om functional food; vad begreppet betyder för er samt vilka för- och nackdelar som kan finnas i samband med begreppet. Vi kommer därefter att gå in på ett andra diskussionsområde som jag är säker på att ni har åsikter om och därför är ingen vidare information nödvändig om just det.

Nu följer en kort introduktion om functional food samt något som debatten runt ämnet innefattar. Begreppet har funnits en tid men det råder delade meningar om vad det egentligen innebär och innefattar. Utvecklingen av produkter inom området har på senare tid kommit av egenbehandling och förebyggande vård i hemmet blivit allt vanligare, liksom ett ökande antal som inte anser att de får i sig tillräckligt med näringsämnen via kosten (Sloan, 2002). Detta i sin tur har lett till att marknaden för functional food produkter blivit en av de viktigaste trenderna att följa i allt fler livsmedelsföretag. Vi som konsumenter har, som en effekt av detta, fått ett allt större utbud av livsmedelsprodukter som innehåller olika tillskott och som i vissa fall uppges ge en positiv effekt på vår hälsa. Vilka för- och nackdelar detta medför är även det ett ämne för omfattande diskussion.

Välkomna för diskussion!

Hälsningar

Patrik

Appendix 3: Participants in the focus group study

Focus group 1 – younger males, athletes, age: 27-28

Anders Gerardsson, age 28, Lieutenant Navy

Henrik Wilert, age 28, Bike mechanic

Markus Juneholt, age 27, Construction worker

Robert Österling, age 28, Store room worker

Focus group 2 – younger women, age: 26-32

Maria Evenäs, age 32, teacher

Jenny Nordahl, age 28, teacher

Marie Olsson, age 26, teacher

Louice Cardell Hepp, age 26, student

Focus group 3 – academics, three women and one man, age: 38 to 50

Caroline Arcini, age 44, Osteologist Phd

Lena Nilsson, age 47, Osteologist, Phd Student

Annica Cardell, age 50, Osteologist Phd Student

Attila Rostoványi, age 38, Archaeologist

Focus group 4 – older males, age: 42 to 67

Christian Lundberg, age 42, service engineer

Kjell Andersson, age 67, foreman

Jonas Hylén, age 44, sheet-metal worker

Tommy Palmér, age 62, forklift operator

Thomas Clair, age 51, consulting manager

Focus group 5 – parents, two men and two women, age: 30-36

Anna Maria Lindblad, age 36, customer relations

Peter Karlsson, age 30, ventilation technician

Henrik Gunnarsson, age 33, marketing director

Lotta Låstbom, age 33, teacher