How producers addressed the healthy food demand

Giorgio Genta

403560

Coach: Dr. Peter de Wolf

Co-Reader: Guido Berens

Table of Contents

Acknowledgments

I would like to take the opportunity to thank my coach, Professor Peter de Wolf, for his time and valuable ideas. And my co-reader, Professor Guido Berens, for his feedbacks and assistance.

I would also like to thank all my friends here in the Netherlands, in Italy and elsewhere, for their encouragement and motivation.

Finally, I am thankful to my family. They have supported my and congratulated all my efforts, not only related to my thesis, and have always believed in me.

Giorgio

Abstract

The research studies the diffusion of healthy food (namely organic food, nutrition and health-related claims products, fat or sugar free products) in food producers from the Netherlands and Italy. It analyses three main aspects: How much these healthy food products are diffused and part of the firms' portfolios; whether these products are commercialized with a particular marketing campaign; what are the external growth strategies used by food producers to access them, in particular the use of alliances and M&As. Hypotheses are build on these elements, and verified with the use of a survey sent to a sample of firms in the two target countries.

The results show the considerable diffusion of healthy food, both in terms of firms that have them in their array of products, and in term of the share they represent in the firm's portfolio; it highlights the use of marketing campaigns adopted to promote this category of products; and finally it examines the use of alliances and M&As, with the predominance of the latter, as strategic external growth strategies to access healthy food.

Chapter 1. – Introduction

1.1 An Introduction

The food industry is paramount for the economy of Europe. It is the biggest manufacturing sector (14.9%) and in 2011 it had a turnover of over €1 tr. (Fooddrinkeurope 2012, Data & Trends). It is a fragmented sector, with 287,000 firms (Eurostat 2010) that can be considered a part of it, and a complex value chain, comprising the producers, the wholesalers and the retailers. The resulting food sector is a vast area to delineate. According to the USDA (Economic Research Service, 2013), it can be defined as '[…] a complex network of farmers and the industries that link to them. Those links include makers of farm equipment and chemicals as well as firms that provide services to agribusinesses, such as providers of transportation and financial services. The system also includes the food marketing industries that link farms to consumers, and which include food and fiber processors, wholesalers, retailers, and foodservice establishments.'

SMEs play an important role (European Commission, 2014), particularly in domestic markets and in specialized niches, which do not have sufficient revenues to attract the major players. Moreover, the industry is highly volatile (Inter-American Development Bank, 2012); prices have displayed considerable volatility over the years, due to adverse weather conditions like droughts or floods, which have a direct influence on the prices of raw materials. Finally, the industry is highly competitive, with considerable varieties of similar products available and relevant price differences among brands, because of premium ingredients, or brand visibility.

One main factor that can be identified as the driver of change in the industry over the last decade is the attention to the health of food produced. This element is twofold: On the one hand more attentive inspections have been made by governmental agencies to secure the safety of edibles, and regulation has been enacted to allow consumers a greater awareness of what they eat; on the other hand consumers, also thanks to the aforementioned, have demonstrated an increasing attention to the health side of their eating habits.

Consequently, all the value chain had to adapt. Supermarkets and retailers were the first to sense the change due to the requests of consumers, which went back to the source and affected food producers. How, and how much, the producers responded to this attitude is yet to

demonstrate.

1.2   An introduction to the problem definition

Consumers make dietary decisions based on economic, physiologic, psychological, sociological and even spiritual considerations (Blaylock et al. 1999). Therefore it is hard for the food industry to understand what changes will occur in consumer preferences, and to foresee the best way to react to them. A new attitude can be a fad, or instead a lasting trend, and firms must act accordingly (Asp, 1999).

Awareness in healthy food

The raising awareness of consumers is a phenomenon here to stay. Three main elements can be identified as fundamental for this new attitude: Changes in regulation, the use of the Internet, and the surface of pressure groups.

First of all, regulation has a long history when it comes to food. Currently for the European Union members there is a twofold level of regulation, one at country-specific level, and one inserted in the EU set of laws. Apart from regulation pertaining the safety of food, what has had a great influence on the attitude of consumer is the one concerning the clear identification of caloric intake and ingredients on the back of many products normally consumed. This kind of food labeling legislation in the EU dates back to the 1979, but it has been made selective and detailed only more recently, with Council Directive 2000/13/EC and subsequently its amendment 2003 /89/EC (Przyrembel, 2004). Thanks to this addition, the average consumer has become able to understand better what he or she was eating, and therefore to make more informed choices and build up the trend of healthy food consumption.

Second of all, the Internet, and more recently, the use of social media, has had a big influence on consumers' perception of what they eat. Indeed they now have the possibility to read opinions, search for evidence, and share their concerns with other users. News concerning the healthiness of products, or their unhealthiness, can spread quickly, particularly among young consumers, who are also the one more inclined to change their dietary habit to include a larger share of healthy products (Lappalainen et al. 1998). For example, during the horsemeat scare of 2013, ComRes, a pollster in the UK, found that 7% of the people surveyed had stopped eating meat altogether because of the reports and of their rapid spread on the media and the Internet (The

Economist, February 2013). Furthermore, according to 51% of the executives surveyed by Rabobank in 2012, their food and beverages firms had changed their method of conducting business because of the growing influence of social media. The most affected areas being reputation management, brand management, and communication (Rabobank Annual Market Forum 2012). This highlights how relevant the Internet is, and the influence it can have on the behavior of firms in this sector.

Finally, pressure groups have strengthened over the years and gained more media and public attention. A pressure group is a group of people that tries to modify and influence public opinion about a particular cause (Merriam-Webster, 2013). A multitude of them is active in the food and drinks area, with different goals, ranging from the actual safety of products, to the consumption of more natural products (direct link from producer to consumer, organic food, etc.), to the spread of the rules for a healthier eating habit in order to prevent illnesses and have a better lifestyle. Food & Water Watch in the US and Foodwatch in Europe are among the biggest and most organized pressure groups.

Due to all the abovementioned reasons, consumer awareness about what they eat has been growing steadily, and a significant share of consumers has been interested in the consumption of healthy food, prompting the food producers to adapt and to supply a wide array of suitable food. This comprises organic food, products with nutrition and health claims, and sugar and fat free products.

The reaction of the industry

However, the strategic behavior for food producers is not straightforward. Looking at the existing literature, it is possible to identify some important gaps concerning this topic. Indeed, the majority of the researches and cases pertain to the consumers side, i.e. they analyze why consumers choose some products instead of the others and what effects their overall decisions (Grunert, 2002); the perception of consumers towards functional foods (Urala, Lahteenmaki, 2007); and the consumers behaviors and attitudes toward health and safety (Wilcock et al., 2004). What is lacking is instead an analysis of the producer side. For example how did food producers react to the changing attitude and modify their strategic behavior to respond to it, and also, whether sources of internal growth were used, or of external growth. The lack of researches done concerning these topics can be addressed by an analysis aimed at producers specifically and

at their strategies.

1.3 Problem definition & research questions

An industry that is consumer-driven like the food industry (Asp, 1999) must take into paramount consideration the needs and wants of its customers. As set before, there are many elements that define the attitude of consumer; at the same time there are many ways a firm can react to a changing attitude. How to adapt, and whether to adapt in the first place, to the requirements of consumer is a fundamental strategic decision, which entails important consequences for the enterprise.

Research question

This research thesis seeks to analyze the impact that consumer's changing attitude towards healthy food has had on food producers. Only the producer's side of the value chain is analyzed, since producers are the one who bear the most effortful strategic considerations in the value chain, and the ones that are more affected by the trend. Producers must come up with practical solutions to consumer needs, and, although many other valuable parts make up the food industry, every change that can be considered important must start at the producer side. Concerning healthy food, the producers must decide to invest in them, or not to do it, and therefore shape the market and effect distributors, retailers, and also the agricultural sector which is at the starting point of the value chain.

The research question at the basis of this thesis concerns the influence of the healthy food trend on producers.

- What are the effects of the healthy products trend of consumer on the strategic behavior of food producers?

This general research question is divided into sub questions, which are addressed in the thesis.

Research subquestions

A series of subquestions is defined to understand the strategic behavior of food producers. Since the aim of the producers is to supply products according to consumer's needs and wants, it was necessary for them to add these new products in their portfolios of goods. How, and to what extent, this aim has been reached is the focus of the research, and to analyze it the subquestions are comprised into two categories: Sources of internal growth and sources of external growth.

First of all, food producers might have chosen to develop the new products internally, with investments in R&D and the setting up of brands and lines. The involvement that each company has in this area might be strongly different, with some firms that decided not to enter the healthy food sector at all, others that only produce healthy food, and everything else in between. This leads to the first subquestion:

1. To what extent food producers developed a line of healthy products?

The answer to this research question leads to the understanding of the magnitude to which food producers have healthy products lines or do not have them, i.e. if they internally embarked in the production of healthy food. The next set of subquestions instead refers to the external strategies adopted to invest in a line of healthy food.

Second of all, producers might have chosen to invest in external growth, i.e. in alliances or M&As to access these products. Indeed, it might have been more profitable for them to acquire already existing product lines embedded in other firms, and enter the market for healthy food in this direct way; or instead to form alliances with other firms in order to have a more effective and efficient development. Alliances and acquisitions (or mergers) can be considered an optimal solution when the cost of going alone (i.e. of R&D research) is considerably higher and the advantages lower than the one obtained with an external growth. Other important reason that might force a firm to choose the latter is time diseconomies (Barney, 1991). These considerations lead to the second set of subquestions:

2. Have food producers invested in M&As to access a line of healthy products?

3. Have food producers invested in alliances to develop a line of healthy products?

Finally, another aspect analyzed in the research is whether food producers invested considerably in a marketing campaign to promote the healthy food in their portfolios, and what is the marketing focus on healthy food. Firms might consider these products as important enough to devote some marketing effort to them, or to invest in an autonomous campaign to promote them, or oppositely none at all. This leads to the last subquestion:

4. Have food producers invested in marketing activities to promote their healthy food?

1.4   Research Objectives

The objective of the research thesis is therefore twofold: To understand the diffusion of healthy food among food producers in a given population; and to analyze their strategic behavior

concerning external growth strategies and marketing efforts. In this way it will be possible to grasp what the most used way of growth to enter into this new market is, and to give valuable insight both from the managerial point of view and from the scientific point of view. The current gap in the literature will be partly bridged with preliminary understandings and give the possibility for future researches that analyze the behavior of food producers.

1.5 Conclusions

The research thesis continues with a literature review analyzing in details the current literature about consumer attitudes, the definition of healthy food (as considered in this paper), and external growth strategies. This part lays the foundations for the formulation of hypotheses. The research then follows with conceptual models and methods, and finally the analyses of the data collected and the resulting findings. It then ends with a conclusion and wrap-up, the identification of the boundaries and limitations, and the ideas for future researches.

Chapter 2. - Literature review

Three main parts are defined as the subject of this research; its core is the current popularity of healthy food. Starting from this element, the next pages discuss both its cause and its effect. The former (i.e. the cause) is the shifting of the consumer preferences. The first section of the 'Literature review' covers what are the influencing forces that caused this shift, and the modification of trends in the food area, as analyzed by some relevant papers and journals. Subsequently, the effect is examined, i.e. what has been the producers' response. This is indeed, as already explained in Chapter 1, the focus of the thesis. Specifically, this 'Literature review' section is concerned with explaining what is the meaning of external sources of growth and internal sources of growth, and, analyzing relevant articles and papers of the most reliable strategic management journals, delving into the concepts of M&As and alliances in particular.
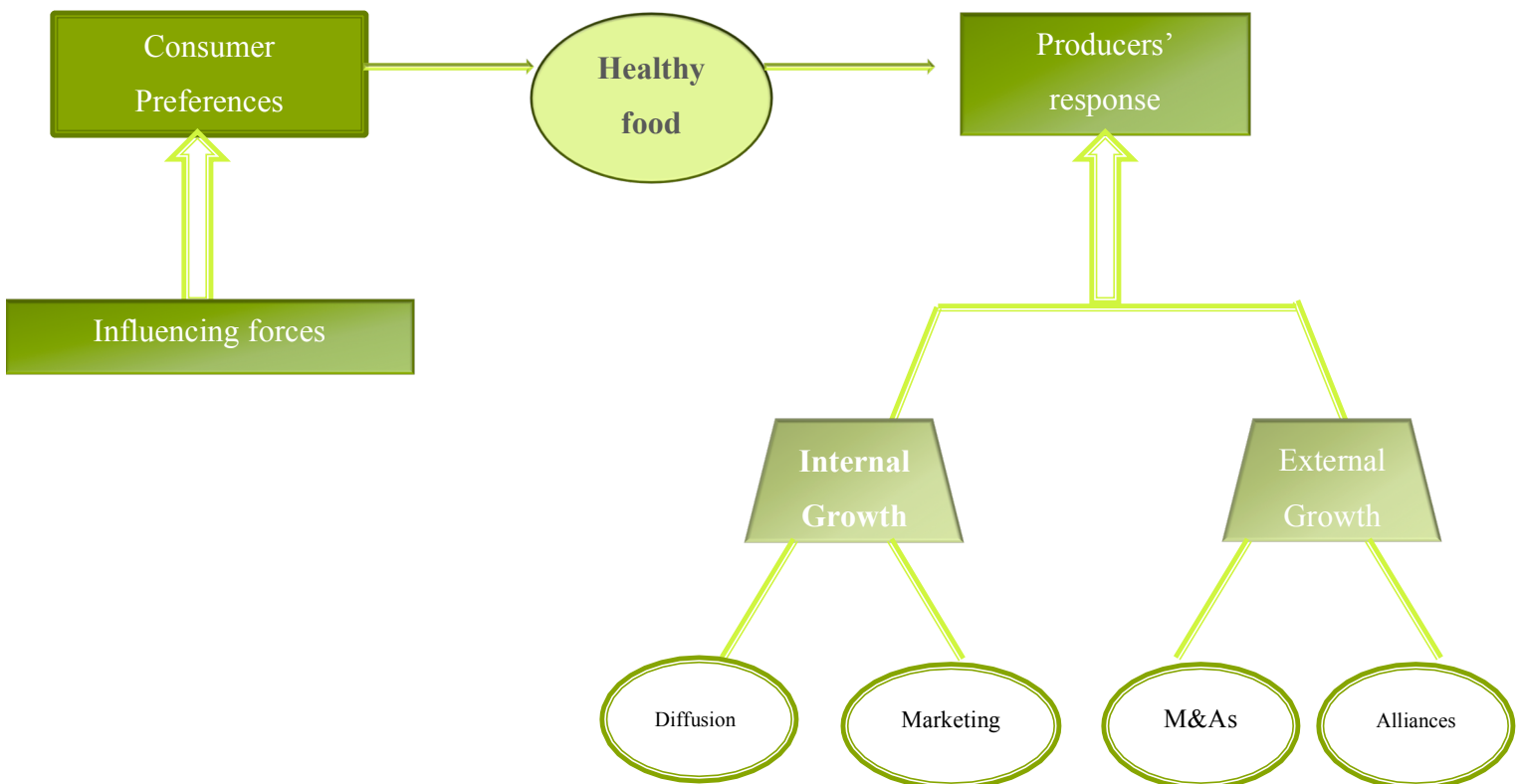
Graph 1. - Structure of the research thesis

2.1 Influences of consumer choices

Drivers of Food Choice

Food is the second most advertised category of products (Gallo, 1996). A consumer can take as little as 12 seconds to decode which brand of product to buy, and almost half of the consumers take the bewildering time of 1 second to make a purchase decision (Moorman, 1996).

Identifying the reasons behind the consumption of a particular kind of food, or another, requires the consideration of many different elements. The purchase of an average good is triggered by needs, wants, and demands of such consumer (Kotler et al., 2008). But when it comes to food, there are ulterior elements of complexity; food is used to promote family togetherness; it is used to socialize; it denotes regional, ethnic, and religious identity; it can be used to express discontent, e.g. in hunger strikes; and finally it has artistic characteristics and is used by cooks, restaurants, artists, and advertisers to modify food choices (Asp, 1999). A household can purchase food items, and combine them with cooking skills, knowledge, appliances and time, to produce an output different than the original input (Becker, 1966).

Keeping in mind these features, the choice process can be depicted as below.

Graph 2 – Conceptual model of the consumer food choice decision process
(Adapted by Schifferstein at all. 1998)

The problem recognition corresponds to a need or a want, which must be backed by demand power; subsequently the consumer starts searching for products that satisfy their wants, evaluate all the alternatives present, and make their final choice. Particularly sensitive in the food area are the 'problem recognition' and the 'alternative evaluation'. Indeed, even though the former can be intended as driven by hunger, many different factors come into play. Regarding the evaluation of

alternatives, there is a wide array of choices for any kind of food, not all of them equal, and healthy food are part of the alternatives.

Two elements are relevant to the final choice. Firstly, attitudes of consumers guide, influence, direct and shape which will be the behavior and the consequent choice (Hearty at al. 2007). Secondly, food habits are the main trigger for the choice of a product, and they are an important component of culture. However, culture is continually changing, adapting to travel, immigration and the socioeconomic environment (Asp, 1999).

The followings can be considered the main motives that influence food choice.

- *Personal and attitudinal factors* are the first elements that a consumer encounters when he or she is in the 'alternative evaluation' phase of the food selection (Sun, 2008).

- *Psychological factors* are among the most important drivers that direct the consumer choice. In particular, likes and dislikes will often be the sole parameter of choice. Liked foods are the ones that are familiar and pleasant, influenced by personal taste (Roininen at al., 1999). Disliked food are instead unpleasant, unfamiliar and often rejected because they have never been tested before. Finally, also color, texture, shape and temperature are psychological components relevant for the final choice. (Asp, 1999).

- *Lifestyle factors* are the way in which a person wants to express his or her own identity in many different areas, among them food (Asp, 1999). This aspect can be of particular relevance for healthy food choices, since a consumer might want to pursue a healthy lifestyle, integrating exercise and healthy food.

- Finally, *health and safety* are paramount in any food choice (Schifferstein, 1998).

Moreover, apart from the aforementioned personal and psychological attitudes, consumers face four trade-offs when evaluating alternatives, which could let them choose products that are deemed unhealthy to the detriment of healthy food (Blaylock et al., 1999):

- Nutrition and taste;
- Nutrition and costs, since healthy food are generally more expensive;
- Nutrition and convenience;
- Known short-term costs and long-term health benefits.

Furthermore, consumer cannot ascertain the quality of the food products purchased (unless it is a repeated purchase) and therefore base their final decision (driven by the drivers mentioned above) on quality expectations. After the purchase there will be a quality experience that will lead to the repurchase only if coherent with the original expectation (Grunert, 2002). Of course brand is a strong influencer of the initial quality expectation.

Healthy food choice

The consumption of healthy food is relevant for this research. Having already explained the reasons behind the choice of any food, it is significant to analyze the motives behind the choice of a healthy food. The process is depicted in the graph below.

Graph 3. Healthy food selection process (Sun, 2008)

Health concerns arise firstly due to an increase in information; this relates both to the information available on packages (nutritional values and calories) and to the knowledge of the single consumer, which is partly dependent on the information found on the product. In particular, knowledge of nutrition can take two forms, i.e. knowledge of principles and knowledge of specific nutrient present in a given food (Blaylock et al., 1999). As the individual knowledge increases, health concerns grows consequently, since the single consumer is more aware of health risks deriving from a bad nutrition, and the beneficial effects that healthy food can give. This is strongly connected to both education and income: An increase in both corresponds to an increase in the awareness of diet-related diseases and in the benefits of a healthy nutrition (Blaylock et al., 1999). And indeed the knowledge of the relationship between diet and health is considered as the first driver in motivating the acquisition of healthy food. This awareness is not enough by itself, and a series of other steps are necessary to convince a consumer to shift to healthy eating attitudes, and therefore to the straightforward consumption of healthy food. The first of them is where the consumer believes his or her own health locus of

control is (Schifferstein, 1998). Only if the consumers believe that the locus is internal, i.e. they are the definers of it, then they will step toward a healthy eating attitude. Secondly, there must be motivation to purchase this kind of products, regardless of the possible trade-offs.

A series of demographical features have been identified as influencing the healthy food motivations of a consumer. Among them, the most cited in the literature are:

- *Education*: A higher education corresponds to higher interest and disposition to purchase healthy food (Hearty et al., 2007);

- *Gender*: Studies have shown that gender is correlated with health concerns, the first part of the 'healthy food selection process' described in the graph above (Sun, 2008); women ranked higher in the interest of healthy eating than men (Roininen et al., 1999);

- *Age*: Normally, younger people are less conscious about buying healthy products (due to less apprehension about diseases). However, young consumers are also the ones who more easily can change their diet, and whose lifestyle can be more characterized by health and fitness (Hearty et al., 2007);

- *Interest in general health*: this is correlated to interest in natural products (i.e. organic consumptions) (Roininen et al., 1999);

- *Lifestyle*: A healthy lifestyle, meaning physical activity and willingness to appear fit, is understandably correlated to higher health concern and therefore healthy eating choices, despite other demographic characteristics (e.g. despite the age of the consumer) (Roininen et al., 1999).

- *Income*: The higher the income, the lower the weight of the nutrition and cost trade-off. However, the connection between higher income and higher healthy food consumption is not always clearly found.

All the above features define the chance that a consumer will be interested in healthy food consumption, and therefore a target for food producers of healthy products.

In conclusion, consumer choice is a complex matter, made up by the four stages of 'problem recognition', 'search', 'alternative evaluation' and finally 'choice'. While various factors influence this process, some other elements come into play when a healthy food choice is

contemplated. The 'health concern' can arise either at the beginning of the process, during the problem recognition, or otherwise later on, during the evaluation of alternatives. This concern, driven by motives, which can be found more easily in consumers with certain characteristics, leads to healthy eating attitudes.

So far the focus has been therefore on the consumer side, to explain how the choice of food and the healthy eating attitude arise. The next part of the 'Literature Review' focuses on the possible responses of producers.

2.2 Producers' response: Internal Growth

Sources of internal growth refer to the development of healthy food products inside the firm – without the use of M&As or alliances, which are considered external growth strategies. In order to have healthy food products, a series of steps must be undertaken by the enterprise. Primarily, the R&D department must develop ways to create the products that are both safe and coherent with the requirements. This can necessitate particular raw materials (like in the case of organic products) or technological innovations (like in the case of food with nutrition and health claims). Moreover, the extensive use of marketing practices (i.e. marketing campaigns on different media to make a product well-known), used to validate the healthiness of a particular product, line of products, or even of a whole firm (seen as health-friendly), is considered here to be a source of internal growth.

Own line

Three types of products are considered 'healthy food' in this research: Organic products, NH products, and basic aliments that are sugar and fat free.

Organic food

According to the Dutch Ministry of Agriculture, organic food can be defined as food whose production refrains from using synthetic chemicals like pesticides and fertilizers, and livestock is not preventively treated to avoid diseases. Therefore, organic products are unlikely to contain residuals of these chemicals (LNV, 1992). This food keeps refining processes at the minimum level, increasing the overall healthiness of the products. Typical examples of organic food are fruit and vegetables (free of pesticides), chicken meat, muesli, brown bread (made with organic crops) and unrefined sugar (Schifferstein et al., 1997). Although the attitude of consumer

towards organic food is positive, actual consumption is low, varying in Europe from 1% to 5% of the overall food consumption (Aertsens et al., 2009).

NH products

Nutrition and health-related claims are applied to food that is considered to give some kind of health benefits to the consumer due to the presence of extra or reduced ingredients (Parker, 2003). They promote particular functional ingredients (hence the name functional food) and they vary according to the strength of these claims. Five categories are identified, which are 1. Content claims; 2. Structure-function claims; 3. Product claims; 4. Disease risk-reduction claim; 5. Marketing claim (Van Trijp et al., 2006). NH products are highly regulated by law: They should not be misleading, but help consumers maintain a healthy status. Functional food has been the fastest growing sector of the food industry in the last two decades (Verbeke, 2005), and represents a portion of the European market varying from 1% to 3%, with the Netherlands as the biggest consumer of NH products in the European Union (Sirò et al. 2008). Specific efforts and marketing practices are required in order to make NH products successful, and for this reason the market is characterized by a high level of failure (Menrad, 2001), also because consumers are not willing to make a health-taste trade off when it comes to functional food (Gray et al., 2003).

Sugar and fat free food

Sugar free and far free products are defined as food that contains less than 0.5 g of fat or sugar per serving, and therefore are identified as healthy and low caloric (FDA, 2013). Many products can have this kind of label, among them cookies, sweets, and yoghurts. This variety contributes to their relative diffusion, with consumption similar to functional food.

Healthy food

Given the above definitions of what is considered as 'healthy food' in this research, it is possible to define the first hypothesis, which is the basis of the ensuing hypotheses. Since the trend for healthy food is still small, but surely growing quickly, it can be expected that a number of food producers have developed some of the aforementioned categories of healthy food, in order to address the requirements by consumers and to exploit the trend. However, considering the consumption numbers of healthy products are still low, we cannot expect that the majority of food producers has this kind of products in their portfolios, but only the ones that adapted

quicker and have more possibilities to do so. Considering the data previously mentioned it could be estimated that current consumption of healthy food corresponds to around 5-10% of the total food sector (i.e., by summing the minimum and maximum of the consumption of organic, NH, and sugar and fat free products sold). This leads to the first hypothesis.

Hypothesis 1. A small but considerable amount of firms have healthy food (Organic products, NH products, sugar or fat free products) in their portfolios.

Marketing

Marketing practices are important for almost any product sold. In the food industry, a cunning marketing is even more fundamental, due to the fierce competition, the wide array of alternatives, and the difficult processes that influence the final choice of a consumer. Moreover, the success of a new food product is also far from certain: Already a decade ago three out of four newly launched food products were withdrawn from the market in the next two years (Menrad, 2001). And with a constant growth of the industry the trend is confirmed in more recent times.

Healthy food need a strong marketing even more, because they need to become well-known, and trusted, in order to have a chance of survival. In particular, while doing marketing campaigns (in the term of commercials in any media), an element that must be taken into consideration when marketing healthy food is to add nutritional claims, or healthiness claims. For example, in a study about NH food, it has been proved that without health claims, 90% of the consumers would still choose the traditional product not enriched; when physiological claims are added, 25% will prefer the new products, and this will grow to 30% if health claims are added as well (Bech-Larsen et al., 2001). Physiological claims refers to specific beneficial effects that a food has on normal functions or biological activities of the body, while health claims make a connection between the consumption of a given food and health (CFIA, 2014).

Therefore, considering again the high competition, the presence of alternatives, and the high level of failure, it is possible to hypothesize that, if a food producer is engaged in healthy food products, and it has a marketing department (since not all producers also market their products – retailers sometimes take this role), then it will have devoted attention to the marketing promotion of the healthy products. Moreover, studies have shown how consumers surveyed identified 'lack of marketing', or 'insufficient marketing', as one of the reasons of non-purchase of organic

food and other healthy food (Hughner et al., 2007). Often consumer lack the knowledge about the healthiness of these products, and a sound marketing campaign can have a great effect on increasing awareness and sales. This leads to hypothesis two of the research.

Hypothesis 2. Food producers active in marketing devote attention to their healthy products with a marketing campaign.

2.3   Producers' response: External Growth

When a firm is pursuing external growth strategies, it is trying to expand its production or reach by the acquisition of another firm – or an SBU of a firm (only a part of it) – or alternatively it is joining forces with another firm to achieve a common goal. In the first case it is doing a merger or acquisition (M&As), in the second an alliance. Acquisitions and alliances help bridge the gap between the present endowment of the firm and its required endowment (Hoffmann et al., 2001), exemplified in this research between the capabilities of food producers and the need to address the healthy food requirements.

A firm would choose to respond to the consumer's demands by a mean of external growth in three cases. Firstly, if the costs of going alone (i.e., internal growth) are higher than the costs incurred by embarking in an alliance or M&A. Secondly, external growth strategies are preferred to internal growth strategies in case of time compression diseconomies (Dyer and Singh, 1998). These arise when it would take too much time for a firm to develop its own line of products or technological improvement, and therefore the firm would lose market share to first movers, or even troubled laggards that have joined forces with surging latecomers through external growth strategies (Verbeke, 2013). Thirdly, M&As and alliances are favored if the firm can achieve synergies with another firm.

In particular, the existence of possible synergies is a big driver for a firm to board in external growth, since the benefits achieved thanks to them can be of great relevance, and constitute a strategic advantage for the firm itself. Understanding the types of synergies is therefore important to research whether it was feasible for food producers to enter in M&As or alliances.

Synergies can be analyzed based on 3 dimensions: The types of synergies achievable, the advantages obtained, and finally the time required achieving them.

There are three types of synergies identified, as described by Dyer and Singh (Dyer et al., 2004). Modular synergies arise when the firms manage resources independently and pool together only the results for greater profits. They require a low level of engagement, and therefore are best achieved with alliances. Sequential synergies instead arise when firm A produces a part of a product, and then firm B produces another part of it. The resources of the firms are sequentially interdependent. Equity based alliances are best used here. Finally, reciprocal synergies are achieved through working together and executing tasks with an iterative-process. The firms become strongly interdependent, and the best strategy used is a merger or acquisition.

Another dimension that can be analyzed concerns the time span required to achieve them, which can be both short-run or long-run; finally, not all the synergies can be successfully achieved in the same way: Some of them are difficult to get, and have a low probability of success, while others have a higher probability of success (Cullinan et al., 2004)). These two dimensions (time span and probability of success) are inversely related, i.e. a high probability of success corresponds to a low time span required, and vice versa. This can be seen in the image below.
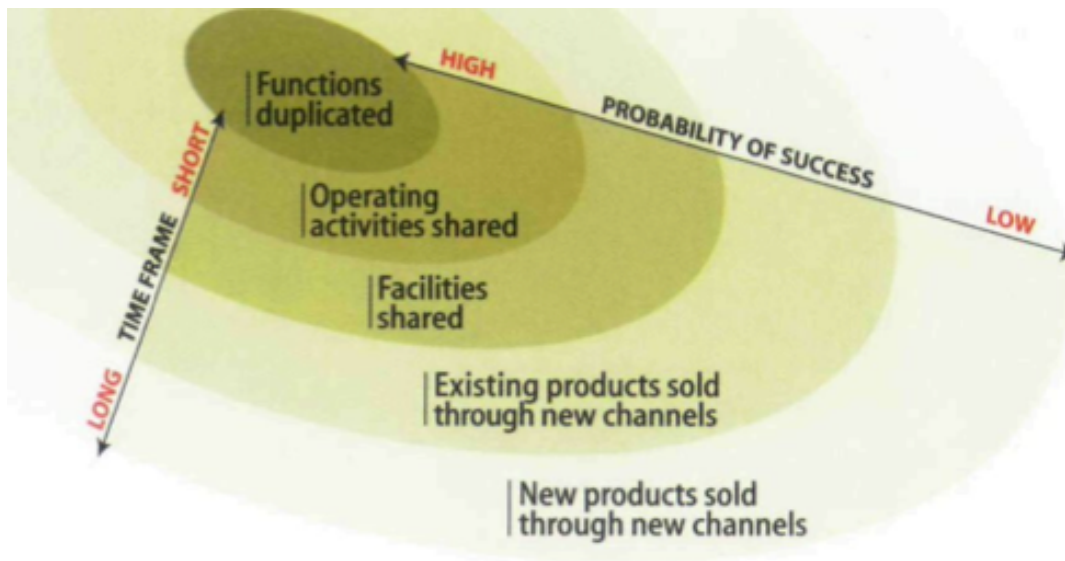

Figure 1. Two dimensions of synergies (Cullinan et al., 2004)

Therefore, food producers could have a reason to embark in external growth strategies due to the advantages given them by synergies. Principally, looking at the three dimensions highlighted

above, it makes particular sense for them to build long term synergies that allows the creation of new products (healthy food) sold through new channels, or new products sold through their existing channels too. This is achieved through sequential or reciprocal synergies.

At this point it is useful to understand what precisely M&As and alliances are, and at a later stage, to analyze when a firm should enter one of them, in order to hypothesize whether food producers have more reasons to enter an M&A or an alliance.

M&As

Acquisitions and mergers consist of one firm taking control of a company (or a part of it) by acquiring shares or property. The acquired company therefore loses any economic independence, and the right to make autonomous decisions (Hoffmann et al., 2001). Due to the loss of independence, mergers and acquisitions cannot be terminated unilaterally. There is a difference between an acquisition and a merger. The latter consists of two firms, A and B, merging into a new entity, firm C. An acquisition consists of one firm, A, acquiring another firm, B, which is now a part of A (Slangen, 2013).

Alliances

A strategic alliance involves a collaborative agreement between companies, which cooperate to obtain a competitive advantage, exchanging or consolidating resources and services to a common endeavor (Gulati, 2001). While doing so, they remain at least partially independent and their agreement can be terminated unilaterally.

The first differentiation can be found between equity alliances – that involve equity exchange – and non-equity alliances – which do not involve any equity exchange between the two firms.

When to make an alliance and when to acquire

Alliances and acquisitions are a complex matter. A set of criteria can be defined to understand whether to ally with a firm or to acquire.

1. *Hard vs. soft resources*: Hard resources are, for example, plants or manufacturing machineries, while soft resources are represented by personnel and technology. When companies have mainly hard resources and they want to create synergies, the best strategy is to acquire, since hard resources are easily valued and absorbed. Instead, since

soft resources are harder to transfer (also due to culture and traditions) alliances are a better external growth strategy (Dyer et al., 2004).

2. *Redundant vs. non-redundant resources*: The extent of redundancy determines the strategy that a firm can adopt. High redundancy implies the possibility to generate economies of scale, or to cut costs. In this case, M&As are preferred. If instead there is a low level of redundancy, and therefore it is not feasible to apply the aforesaid techniques, alliances are preferred (Dye et al., 2004).

3. *Certain vs. uncertain market*: Strategic uncertainty means environmental uncertainty, i.e. a lack of knowledge about future conditions of the market (Sutcliffe, 1998). When there is high uncertainty, alliances are a more flexible instrument to achieve common goals. If instead the market has a low degree of uncertainty, an acquisition can be used (Hoffmann et al., 2001).

4. *Strong vs. weak competition*: High competition in a market can force a firm to make an acquisition to secure the know-how and resources of the target firm (Dyer et al., 2004).

5. *High dispersion vs. low dispersion of knowledge*: Environments characterized by dispersed knowledge favor alliances over acquisitions. (Hoffmann et al., 2001).

6. *High vs. low transaction specific investments*: Transaction related investments refer to the investments necessary for the achievement of the common goal. When they are high, it makes more economic sense to embark in an acquisition, reducing therefore the possibility of opportunism (Williamson, 1991).

7. *Long-term vs. short-term synergies*: As seen before, one dimension of the synergies encountered concerns the length of the expected synergies. In case of short-term synergies, an alliance is favorable. When the synergies achieved are long-term, M&As are preferable (Hoffmann et al., 2001).

8. *High vs. low appropriability regime*: Appropriability regime defines the ability of a firm to defend its core capabilities and resources from unwelcomed appropriation by a partner (Teece, 1996). If these can be protected only at high expenses, then acquisitions are preferable. If instead a firm has low appropriability regime, i.e. it is able to protect its resources (e.g. thanks to copyrights or the presence of hard resources) alliances are favorable (Hoffmann et al., 2001).

These findings can be summarized in the table below, which shows whether M&As or alliances are preferred depending on the characteristics of the criteria.

	M&As	Alliances
1. Type of resources	Hard	Soft
2. Resources' redundancy	High	Low
3. Uncertainly of the market	Low	High
4. Competition	High	Low
5. Dispersion of knowledge	Low	High
6. Specific investments	High	Low
7. Synergies' duration	Long-term	Short-term
8. Appropriability regime	High	Low

Tab. 1 – M&As and alliances criteria.

Food producers appliance to the criteria

Looking at table 1. (Above) it is promising to position the food producers industry in general on a grid, to define which external growth strategy is the one that makes more economic sense. However, not all of the aforementioned criteria are generalizable for the industry as a whole, and not all of them are equally relevant. Therefore the analysis that follows is an indication of the behavior of an average firm, which will be proved by the research surveys.

First of all, concerning the resources, food producers have chiefly hard resources, since their main end is the actual production of goods. It is expected that their soft resources, although present, are less relevant. Moreover, redundancy is supposed to be high: A given food product can be packaged or refined in a plant with certain machineries, and economies of scope and scale can be achieved (Most of all if the production is in high volume). Both these elements point to a preference of M&As.

Second of all, the conditions of the market are of relevance. The food industry is relatively stable and presents low uncertainty. Indeed, although it is volatile, the volatility regards the changes in prices, and not the innovations present in the industry. A trend can emerge, as the here analyzed healthy food trend, but this does not suffice to consider the industry uncertain. Moreover, it can be defined as highly competitive, considering the high number of firms and of multi-nationals

present. Again, both these criteria point out to a preference of M&As. Also dispersion of knowledge is low, favoring M&As once again.

Thirdly, specific investments are expected to be medium-low, since the production of food does not require particularly sensitive expertise or technology. NH products are the one that require more initial investments (i.e. technological developments), while for example organic food require just a given technique. The duration of synergies is instead high seeing that the benefits arising by the alliance or M&A are long-term production benefits. These two criteria point out to alliances and M&As respectively. Finally, the appropriability regime is low, since the partners procure mainly hard resources. This points out to favorability of alliances.

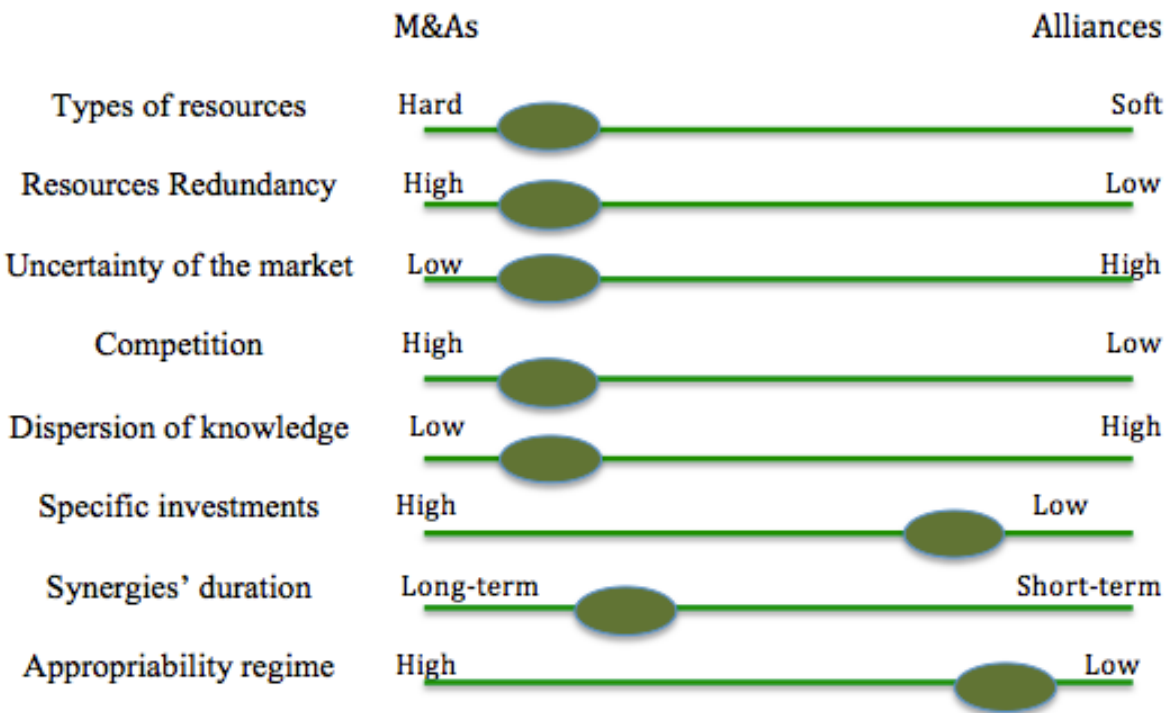These findings are shown in the figure below.

Fig. 2 – Alliance M&A decision model (Adapted from Van Wijk, 2013)

As seen in the model, it is possible to assert that it would make more economic sense for food producers to perform mergers or acquisitions. This leads to the following hypothesis:

Hypothesis 3a. Food producers have invested in M&As to access healthy products more than what they have invested in alliances.

Moreover, a further hypothesis can be advanced concerning the distinction between mergers and acquisitions. Indeed, as stated before, an acquisition arises when a firm purchases another firm in its entirety. On the other hand, a merger arises when one firm purchases the other, and the two entities form a newly born firm. Mergers are less frequent than acquisition (Slangen, 2013), and considering that the focus here is only on M&As undertaken for the purpose of developing healthy food products, it is possible to hypothesize that acquisitions are more frequent than mergers. Indeed, unless a firm only produces healthy food, and merges with another one who only produces healthy food, it would not be feasible to merge with another firm only to access the healthy goods production. It is more feasible instead to acquire another firm, or a part of it, to have a sounder healthy food production. This leads to the following hypothesis.

Hypothesis 3b. Food producers have invested in acquisitions to access healthy products more than they have invested in mergers.

When considering the mergers undertaken, the hypothesis does not make a distinction between an actual merger of equals (in which it is always difficult to acknowledge the equality of the two parts) and a simple merger in which a stronger party can be identified.

Chapter 3. - Models
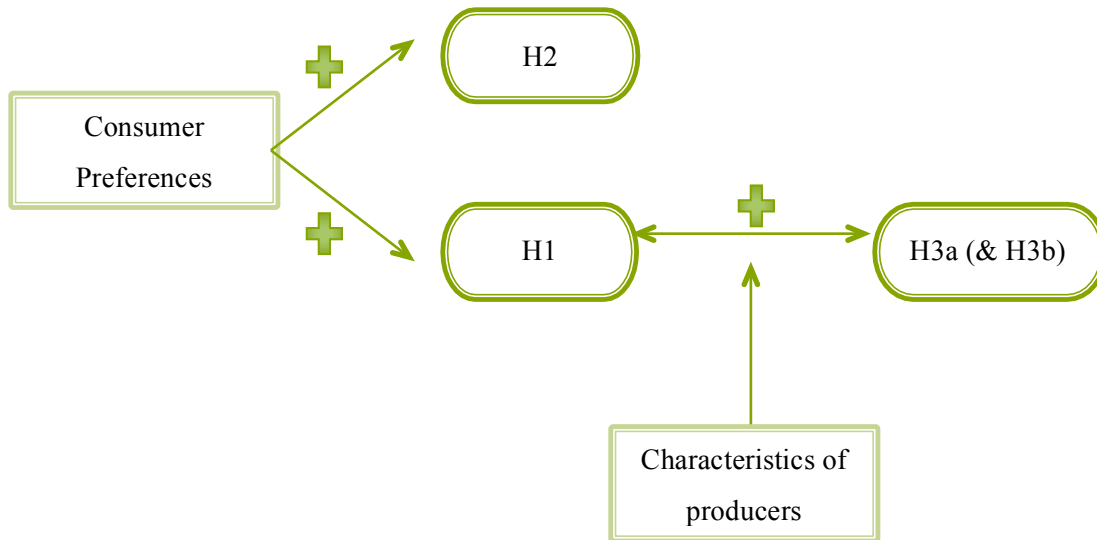
Graph 4. – Hypotheses model

The graph above explains, through the use of arrows and indicators, what is the relationship between the hypotheses and their causes.

First of all, to the left, there is the initial impact of the 'consumer preferences'. As explained in the first part of the 'Literature Review', consumer preferences are influenced by some drivers that cause customers to choose the purchase of healthy food over regular food. These preferences have a clear positive influence on the first two hypotheses. On the one hand, they positively influence H1, i.e. the fact that food producers are indeed involved in the production and commercialization of healthy food. The fact they influence it means that they cause producers to act, and to have healthy food in their portfolio, therefore having a causal relationship with H1. This is a direct relationship, because the bigger the preference of consumers to buy healthy food, the bigger the stimulus for producers to actually invest in healthy food products. On the other hand, 'consumer preferences' has also a positive effect on H2, i.e. the marketization of healthy goods. Again, the effect is directly related and straightforward: As consumers require more healthy food, and as the sector grows, food producers who are also involved in marketing will be

more and more driven to invest their efforts in the advertisement of healthy food products. Secondly, H1 is itself directly related to the other two hypotheses of the research, H3a and H3b. Indeed, the actual production of healthy food, moved by the needs of consumers, has a positive effect on the amount of mergers and acquisitions performed by food producers. This is a double relationship, meaning that H3a is both a consequence of H1, and a prerogative of H1. The need for healthy food is the original effect that causes producers to make healthy food in the first place, and therefore to get involved in M&As in order to get them. But, when firms embark on M&As with the means of producing healthy food, it is clear to see that this influences back the fact that enterprises have healthy food in their portfolios. This double relationship (positively related on both ends) is expressed by the double arrow. Finally, H3a is caused by another effect, i.e. the characteristics of the industry. The hypothesis that food producers perform more M&As than alliances, and consequently more acquisition than mergers, is dictated by the model developed in the 'Literature Review' (Fig. 2, Alliance and M&As decision model). If the characteristics of the industry where to be different, then the content of the hypothesis H3a would have been different altogether, pushing for example towards alliances or a mixed result. H3b (acquisitions are more frequent than mergers) is inserted in the same space as H3a since it is a sub-hypothesis, which can be verified only after the verification of H3a.

The relationships expressed in this model and the four hypotheses are now tested and verified with the use of a quantitative analysis conducted via a survey. The methodology and research design are explained in the next chapter, 'Methods', while the actual analysis of the data and its findings are in chapter 5, 'Data and Findings'.

Chapter 4. - Methods

4.1 Research Design & Methodology

The research is conducted in a quantitative way, using surveys presented to the relevant management of Dutch and Italian food firms. Considering the nature of the research a quantitative analysis is the most appropriate. A qualitative analysis is mainly used to research case studies (Classen, 2014), and they cannot be considered an appropriate method considering the topic and the aims of this research (In particular, there are not case studies concerning its scope that are available and suitable). The best way to address the research questions and to answer the hypotheses is to propose a questionnaire (a survey) to the management of a given population, since the information on the behavior of each firm must be deducted directly from the management of the firm, who is aware of the actions undertaken and the motives behind them. To have an appropriate number of responders and to verify the hypotheses and patterns a newly structured survey is most suitable, and its results must be analyzed with some statistical methods. The survey takes the form of an exploratory survey research (Forza, 2002), since it takes place during the early stage of analysis of a phenomenon to gain preliminary insights.

Likewise, primary data are used in this research. The choice of primary data is dictated first of all by a need: Since the topic of the research is novel, there are no databases whose data are viable to answer the hypotheses defined. It is possible to find databases that report news concerning M&As and alliances (Zephyr), but it is impossible to find inside them if the firms embarked in external growth strategies to access healthy food. Indeed, the aim of the M&As and alliances is generally described in vague terms, or not divulgated at all. What this research must find out is whether food producers used M&As and alliances in order to access healthy food products, and to answer this, it is necessary to collect primary data with the use of surveys. At the same time, there are no databases available to find out the other two hypotheses, i.e. the percentage of food producers who have healthy products in their portfolio, and the precise use of marketing to commercialize healthy food. Therefore, primary data can be molded better to the means of this research, enhancing its probability of success and its usefulness. Taking secondary data verbatim, apart from being infeasible, would reduce the accuracy of the results.

The primary data, collected through the use of a questionnaire and analyzed in a statistical way, concern two economies, i.e. the Italian and the Dutch economy. The latter is sound, although small if compared to a European level. Indeed the Netherlands is one of the biggest exporters of agricultural and food products, and of the 40 biggest food and beverages companies, 12 have a major production site or R&D facilities in the nation. Moreover, one of the 3 focus themes as identified by industry, knowledge infrastructure and government is exactly healthy food (Ministry of Economic Affairs of The Netherlands, 2013). The Italian food industry is also renowned, with big exports and traditions, and revenues of €132bl in 2013 (Federalimentare.it). Therefore the population is coherent with the scope and means of the research. The sampling chosen to estimate the characteristics of the whole population is chosen randomly, and tries to represent as closely as possible the overall population. Moreover, the survey is cross-sectional, i.e. it collects data to make inference about population at one point in time (Classen, 2014).

The survey, developed with Qualtrics (Qualtrics.com) is then sent via email to the population chosen. Email surveys have some advantages, most of all they are low cost and wide reach, and respondents can answer when it suits them, giving the time to think about the answers. The benefits of using this method are superior to the disadvantages, identified by the possible low response rate and the impossibility to control the response setting. Furthermore, email surveys are considered more appropriate to the purpose of this research than telephone interviews and face-to-face interviews, which would not guarantee the same results; their costs would be higher and the population analyzable much reduced (Forza, 2002). The survey was sent in English to the Dutch firms, while it was translated in Italian for the Italian population. The final results were unified in a single database.

The questions posed in the surveys encompass a limited time span, i.e. actions taken to address the trend in the last 5 years (the time frame is clearly explained in the questions of the survey in which it is relevant). A shorter time frame would be limiting for the scope of the research, while a longer time span, although useful, would require an advanced knowledge for the managers who will answer the survey, therefore making it less reliable.

4.2 Variables definition

The research follows three streams that correspond to the three hypotheses tested. The survey was designed to answer a series of questions to check the hypothesized statements and was

divided into four parts, corresponding to the hypotheses, plus a control variable part. Overall, the survey was kept as short and easy to understand as possible, in order to discourage unfinished entries and to encourage participation. In particular, it is important to reduce the costs of the respondents (i.e. make the task appear brief, reducing the physical and mental effort) to encourage higher participation (Dilman, 1978). The questions asked were generally multiple-choice questions, to limit the margin of confusion and to ease its completion to the respondents. These questions were either limited to a single choice (as in the case of the number of M&As and alliances performed, or the control variables) or to multiple choices (in case of the types of healthy food present in the portfolio, or the typology of the firm). In the last case, the option to add 'other answers' was provided.

The first part of the questionnaire assessed the presence of healthy food in the firm, with a few questions to determine if the firm has any healthy food in his portfolio, and what percentage they represent. The healthy food taken into consideration in this research was clearly explained to the participants, with a short definition when necessary, to avoid confusion. In case the respondent identified his or her firm has having no healthy food in the portfolio, the survey would have ended here. Otherwise, the second part analyzed whether the firms were using particular marketing practices for their healthy food. The last part was devoted to the analysis of M&As and alliances. The time span analyzed (5 years) was clearly stated, both in terms of number of years and in terms of the actual time span (i.e. 2009-2013), again in order to avoid confusion. The participants were first asked whether they entered in any M&As or alliances in order to access the healthy food previously mentioned, and in case of a positive answer they were asked more detailed information about how many of them have been performed.

4.3 Control Variables

Moreover, the results have been checked for four control variables. These have been inserted in order to control if the results of the research are subjected to any modification depending on the change in this variable. The first one is the location. The firms surveyed are both Italian and Dutch firms, and for this reason it is necessary to check whether the location in one of the countries has an effect on the results. Secondly, two information directly related to the firm were asked (Forza, 2002), i.e. the age of the firm and the number of employees. In particular, company's size might have an influence on the results that must be checked. For example, the

dimension might influence positively the presence of healthy food, or the number of alliances and M&As performed.

A final data that was asked at the beginning of the survey was the identification of the firm according to the SIC code characteristics. In order to avoid perplexity, the SIC codes have not been given to the respondents, but instead they have been classified together in the clusters previously listed. The results are checked for this control variable too: Indeed, the type of firm might have a considerable influence on the presence of healthy food, with some categories more oriented towards their development than others.

Chapter 5. – Data and Findings

5.1 Data and sample

The sample used for this research consists of food producers selected from the Orbis database (Orbis.com). The selection phase consists of three steps. Firstly, a geographical criterion is set to limit the population to enterprises located in the Netherlands and in Italy. For this purpose it is not relevant whether the factory present in the two countries constitutes a part of a firm headquartered elsewhere, or if it is solely located in one of the two countries. Indeed, the element taken into consideration is the presence of the firm in one of them, with a plant or a factory, in order to have a production in it. If then the firm is part of a conglomerate, a branch, or headquartered elsewhere, this does not change the analysis. Of course production does not equal consumption, some of the healthy food produced will be sold abroad, and some of the one consumed will be imported. The analysis here rests only on the firms that have a production facility in Italy or the Netherlands. Secondly, only firms currently active and in business were identified. Thirdly, SIC primary codes were used as the final criterion to select the sample from the database (Flynn et al., 1990). The US SIC codes chosen for the research can be gathered in five categories: meat and slaughtering (201), dairy products (202), fresh fruit, vegetables and preserved fruit (203), grain mills products and bakery products (2014, 2043, 2044, 2046, 205), sugar and confectionery products (206). Moreover, SIC codes 207 (fat and oils), and 209 (other non previously classified products, including fish, prepared meals, frozen food, and pasta) have been selected (SEC.com, 2011). Some other SIC codes, part of the general food category, have been omitted, mainly animal and industrial food, and beverages. The latter has been excluded since beverages include spirits and alcohol, which cannot be considered as products that can fit the healthy food descriptions in this research. This three-step selection gave a total of 17,734 firms, 6,664 for the Netherlands and 11,070 for Italy. Subsequently, this number was greatly reduced with other two steps. Double (or more) entries were eliminated, and micro-firms were also deleted (European Commission.eu). This was done because micro-firms, due to their extremely reduced size, were considered unlikely to be a useful indicator for the purpose of this research thesis. Indeed, many micro-firms present in the database were not actually food

producers, but local shops (e.g. ice cream vendors or butchers), and the external growth strategy and marketing strategy part of the research would have not fit them. 1,300 e-mail addressed (corresponding to slightly less companies) were then selected from the resulting population. The e-mail addresses were found with a combination of Osiris itself and the scrutiny of the firms' websites. The 1,300 addresses were chosen randomly from the population after various attempts, necessary because approximately 20% of the e-mails were actually sent back due to anti-spam filters. A part of the final addresses were personal e-mails of the firms' management (mainly of CEOs and other top managers), while the others were general commercial e-mails. In this case, the text of the e-mail specified that the survey should have been completed by the CEO or the development manager, or a top manager who had an overall knowledge of the firm production and strategies. The survey was sent a first time to the entire sample, and after 15 days a remainder was sent again. The responses obtained are 74, 39 for Italy and 35 for the Netherlands, equal to a response rate of 5.7%, coherent with this kind of researches.

One element that must be taken into consideration when analyzing the results is the possible presence of nonresponse biases, which, due to low response rate, might affect the generalizability of the collected data (Rogelberg et al., 2007). Low response rate does not necessarily means that the results are biased, just like a high response rate does not eliminate this possibility. But of course, the risk of its occurrence is increased by the lower rate of responses, and therefore nonresponse bias must be taken into account through the research. Various methods exist to trace nonresponse bias (Rogerlberg et al., 2007), but they cannot be used in the scope of this research, mainly due to lack of identifiers (the surveys were anonymous, so it is not possible to discern between who responded and who did not checking the sample), and the lack of time and instruments to perform follow-up researches. Nonetheless, nonresponse bias is addressed later on in the study, when it can have a particular relevance for the findings.
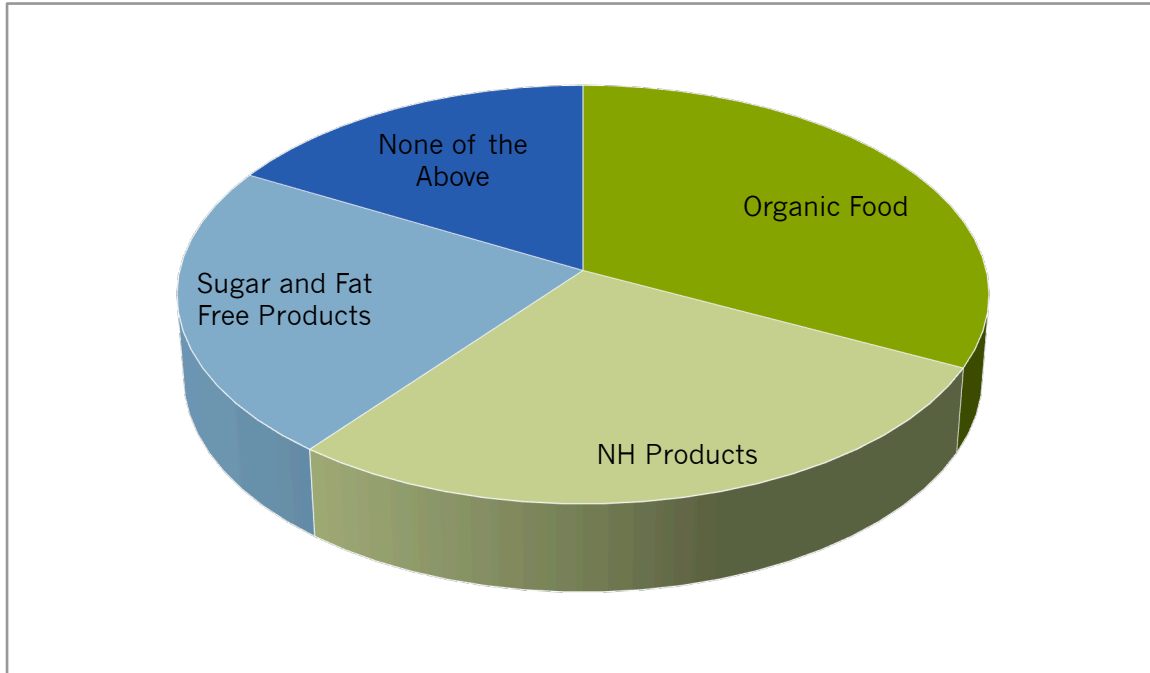
5.2 Findings

At this point the survey was concluded. The final data, collected and analyzed, have been used to test the hypotheses.

Hypothesis 1 – Healthy food diffusion

H1 stated that a small but considerable amount of food producers had healthy food in their portfolio. This can be proved analyzing whether producers actually have the required healthy food, or not. Subsequently, in which proportion they have them is also taken into consideration. Of the 74 respondents, only 24.5% (equal to 18 respondents) had no healthy food at all in their portfolios, meaning that approximately 75% of the food producers make some sort of healthy food (organic, NH, fat or sugar free). Using a Pearson correlation analysis it is possible to highlight some weak correlations between the variable 'No healthy food' and the control variables (To see the correlation string look at the Appendix, table 2.). In particular, a lack of healthy food is weakly correlated with being located in Italy (0.222), and oppositely correlated with being Dutch. A negative correlation also exists between this variable and having more than 250 employees (-0.274): The large firms are therefore more inclined to have healthy food in their portfolios, and Dutch firms are as well. Considering the categories of firms, a weak correlation can be found with 'Meat and slaughtering products', which means that meat producers are less likely to have healthy food. Of the categories of healthy food analyzed here, organic food is the most common: A hefty 46% of the respondents have them in their portfolios of products. This can be explained by the versatility of organic food, which can be found in the form of beverages (e.g. milk), yoghurt, meat, and all kind of fruit and vegetables. 40% of them have instead NH products, and a lower 34% have sugar and fat free products. Moreover, as can be inferred from the percentages, often food producers have more than one type of healthy products. 32% of the respondents to the survey have more than one of the previous categories of healthy food.

The result obtained is therefore much higher than originally expected, with three quarters of food producers in the Netherlands and Italy having healthy goods. This can be exemplified in the graph below.

Graph 5 – Healthy food presence

Therefore, H1 is not supported by the findings. While the hypothesis stated that only a small percentage of food producers have healthy food in their portfolio, it is proved that the high majority of them have healthy food products. This result goes in the same direction of the hypothesis, although this was understating the diffusion that healthy goods already have in the two economies analyzed. Relevant here is the consideration of the nonresponse bias, as discussed above. In particular, this could have had an effect on the kind of respondents who decided to finish the survey. While it was not stated in the e-mail sent that the topic of the research was related to healthy food (in order to avoid a motivation for food producers who do not have them to skip the survey), during its completion it became clear. Therefore a part of the non-completed surveys – which were deleted and not inserted in the data – might have been of producers who do not have any healthy food, and when encountered the topic, decided to stop the filling of the questionnaire. This can have an influence on the result, in the form of a moderately artificially enhanced number of respondents who have healthy food in their portfolios. Despite the validity of the findings, this possibility must be taken into account to have a more precise evaluation of its results.

Moreover, to have a better understanding of the current situation, the percentage of the firms' portfolio represented by healthy food is also examined. Indeed, simply saying that a firm has them does not suffice to understand what the actual diffusion is. Concerning this set of data, findings are again interesting, as can be identified from graph 6 (next page). The majority of the producers stated that the share of their portfolios represented by healthy food products is between 1% to 5% (39% of the total). Although these companies entered the healthy goods market, they did not invest heavily on it, still relying mostly on traditional products. In this case, healthy food can be considered only as a niche market segment for them. 17% have a share ranging from 6% to 10%, and more significantly a hefty 18% has a share from 10% to 15%. In this case, healthy food is not simply and addition to the portfolio, useful to enter a small market, but instead it represents a considerable investment that the firm has had over the years. Surprisingly, 26% of the respondents have a share of healthy food bigger than 15%. The healthy food market is considered by these companies worthy enough to devote up to ¼ of the total production to healthy food, with some firms even reaching 50%. Finally, a small number of firms only have healthy food production, since they answered this question saying that all of their products are healthy food. These firms are specialized in the sector, with some of them producing vegan and organic prepared food, healthy drinks, fresh organic food, and solely organic meat. Others instead are dairy producers, or bigger firms that cover meat, dairy and sugar and confectionary products. They do not have a specific pattern concerning the age of the firm (some of them are older than 30 years, others are just in the 11-20 years range), but all of them, bar one, are classified as medium firms, with between 50 and 250 employees. (For more detailed information about the respondents' share, look at Appendix, table 3.)

Portfolio Percentage
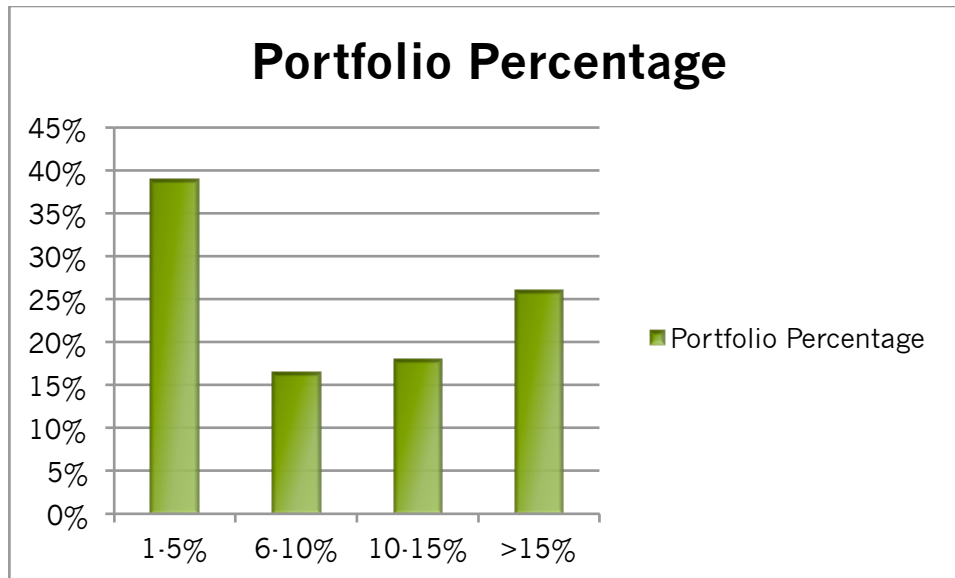
Graph 6 – Portfolio percentage of healthy products

Therefore, the results of this part of the survey are quite unanticipated, both in the number of firms who have healthy food in their portfolio, and in the actual share that the healthy food represent in the portfolio itself. The next part still concerns 'internal growth', i.e. it analyzes the marketing campaigns of food producers.

Hypothesis 2 – Marketing

H2 states that if food producers have a marketing department, they would devote particular attention, i.e. a marketing campaign, to their healthy food. This was tested by asking food producers who have healthy food in their portfolios to answer questions related to their marketing function. They were asked whether their firm did some form of marketing campaign for its products, and in particular if it has made a specific marketing campaign for its healthy food. By marketing campaign all the types of promotions were intended, through different mediums, e.g. commercials, print, online, like social media promotion (Kotler et al., 2008). Respondents had the chance to answer in three ways, respectively: Healthy food has been promoted by itself with a specific marketing campaign; healthy food was not promoted at all by the firm; healthy food was promoted in a marketing campaign but only together with other regular products.

36% indeed designed a marketing campaign totally and solely for healthy food. Looking at the correlation coefficient between variables (Pearson correlation), it is not possible to highlight any particularly significant link between having a marketing campaign and any other variable (Look at the table 4. in the next page to see all the correlations). A weak correlation (0.373) can be seen with being located in Italy. Indeed, from the sample, more Italian firms made an independent marketing campaign for healthy food than Dutch firms. One explanation to this finding can be inferred from the previous data. As seen, there are less healthy food in the portfolios of Italian firms than Dutch firms, with a higher number of firms that do not have any healthy food at all. Therefore, Italian firms that do produce healthy goods might need to put more emphasis on them, and spend more efforts on their promotion. 16% of the respondents say that healthy food had been indeed promoted, but only together with regular food, i.e. with general marketing campaigns.

The remaining 48% said that their firm did not advertise the healthy food present in their portfolio. Again, looking at the Pearson correlation, no significant correlation can be identified for either value. A weak negative correlation exists between not having a marketing campaign for healthy food and having more than 250 employees (-0.228) and between not having a campaign and being Italian (-0.279, as already confirmed by the previous data). Therefore large firms are more likely to invest in a marketing campaign for their healthy products.

Hence H2 is verified: 52% of the food producers have a marketing campaign to promote healthy food from their portfolio (both independently from regular products and together with them).

Correlations

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. CampaignYes	Pearson Correlation																	
	Sig. (2-tailed)																	
	N	55																
2. CampaignTogether	Pearson Correlation	-.334*																
	Sig. (2-tailed)	.013																
	N	55	55															
3. CampaignNo	Pearson Correlation	-.716**	-.419**															
	Sig. (2-tailed)	.000	.001															
	N	55	55	55														
4. Employess<10	Pearson Correlation	-.103	.308*	-.129														
	Sig. (2-tailed)	.455	.022	.348														
	N	55	55	55	74													
5. Emp. 10-50	Pearson Correlation	.099	-.155	.019	-.051													
	Sig. (2-tailed)	.471	.259	.890	.663													
	N	55	55	55	74	74												
6. Emp. 50-250	Pearson Correlation	-.193	-.073	.240	-.130	-.490**												
	Sig. (2-tailed)	.159	.594	.078	.268	.000												
	N	55	55	55	74	74	74											
7. Emp.>250	Pearson Correlation	.166	.092	-.228	-.071	-.268*	-.678**											
	Sig. (2-tailed)	.225	.504	.094	.546	.021	.000											
	N	55	55	55	74	74	74	74										
8. Age <10	Pearson Correlation	.055	-.086	.011	-.024	-.090	-.091	.183										
	Sig. (2-tailed)	.690	.533	.939	.839	.444	.439	.118										
	N	55	55	55	74	74	74	74	74									
9. Age 11-20	Pearson Correlation	.165	-.021	-.143	-.041	.083	-.125	.082	-.072									
	Sig. (2-tailed)	.229	.876	.297	.730	.482	.287	.487	.545									
	N	55	55	55	74	74	74	74	74	74								
10. Age 21-30	Pearson Correlation	.094	.025	-.109	.232*	.052	-.156	.072	-.104	-.176								
	Sig. (2-tailed)	.493	.859	.427	.047	.661	.184	.544	.380	.135								
	N	55	55	55	74	74	74	74	74	74	74							
11. Age >30	Pearson Correlation	-.214	.028	.186	-.159	-.060	.251*	-.189	-.279*	-.473**	-.685**							
	Sig. (2-tailed)	.116	.840	.174	.176	.610	.031	.106	.016	.000	.000							
	N	55	55	55	74	74	74	74	74	74	74	74						
12. Share 1%-5%	Pearson Correlation	-.127	.158	.005	-.107	-.155	-.005	.137	-.153	-.076	-.112	.205						
	Sig. (2-tailed)	.354	.249	.968	.437	.259	.968	.317	.266	.584	.414	.133						
	N	55	55	55	55	55	55	55	55	55	55	55	55					
13. Share 6%-10%	Pearson Correlation	.074	-.196	.073	-.060	.003	-.073	.092	.177	-.021	.147	-.176	-.348**					
	Sig. (2-tailed)	.590	.152	.594	.662	.983	.594	.504	.197	.876	.283	.197	.009					
	N	55	55	55	55	55	55	55	55	55	55	55	55	55				
14. Share 10%-15%	Pearson Correlation	.000	.025	-.018	.272*	.117	-.073	-.076	.146	-.055	-.023	.000	-.393**	-.221				
	Sig. (2-tailed)	1.000	.859	.895	.044	.396	.597	.579	.289	.692	.869	1.000	.003	.105				
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
15. Share >15%	Pearson Correlation	.079	-.033	-.052	-.080	.063	.135	-.161	-.114	.153	.021	-.079	-.459**	-.258	-.292*			
	Sig. (2-tailed)	.567	.812	.708	.564	.646	.325	.240	.409	.266	.880	.567	.000	.057	.030			
	N	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55		
16. Netherlands	Pearson Correlation	-.373**	.108	.279*	-.111	-.270*	.033	.216	.080	.019	-.208	.130	.266*	-.287*	-.091	.030		
	Sig. (2-tailed)	.005	.434	.039	.347	.020	.779	.065	.499	.873	.075	.269	.049	.034	.507	.825		
	N	55	55	55	74	74	74	74	74	74	74	74	55	55	55	55	74	
17. Italy	Pearson Correlation	.373**	-.108	-.279*	.111	.270*	-.033	-.216	-.080	-.019	.208	-.130	-.266*	.287*	.091	-.030	-1.000**	
	Sig. (2-tailed)	.005	.434	.039	.347	.020	.779	.065	.499	.873	.075	.269	.049	.034	.507	.825	0.000	
	N	55	55	55	74	74	74	74	74	74	74	74	55	55	55	55	74	74

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4. Pearson Correlation – Marketing campaign

Hypothesis 3a and 3b – M&As and alliances

The second part of the research tests external growth. H3a claims that, if firms embark in external growth strategies, M&As will be favorite and more common than alliances. This hypothesis was based on the development of a framework, which analyzed the main features of the food producers in general. In total, 24% of the firms have used external growth strategies to access healthy food. 11% of the respondents have performed an alliance over the last 5 years in order to access healthy food, while 20% embarked in M&As in the same time span (The percentage adds to more than the total because a number of firms have performed both alliances and M&As). A statistical test useful to check the veracity of this apparent result is the z test, which checks for differences between the observed groups of data (Z test.com). Testing the data in this way, it turns out that there is not a significant statistical difference between the two observed proportions, because, considering the respondents, the percentages are not different enough (also considering the presence of a standard error margin).

Therefore H3a is not entirely confirmed: The number of M&As is greater than the number of alliances undertaken in the same time period, but due to the limited size of the respondents, it is not possible to consider it proved from a statistical point of view. The hypothesis goes in the right direction though, with a precise indication of what has been assumed with the theoretical framework.

Almost all the respondents stated that their firms entered in 1-3 alliances/M&As, the lowest number present on the scale. Only few of them, located in Italy, have done between 4 and 8 external expansions, and their shares of healthy food are between 6% and 15% of the total portfolio. Looking at the correlations, no strong link can be found. A medium-weak correlation exists between having done an alliance and having done an M&As (0.408, as already seen before); a weak correlation can be also found between having an alliance and being an Italian firm (0.266), and having more than 250 employees (0.236). An interesting link exists also with having performed an alliance and having a marketing campaign to promote healthy food (0.342). Concerning the types of firms, the only two correlations that can be found are a negative link between alliances and grain mills producers (-0.195) and a positive link between M&As and fruit producers (0.218). To observe the full strings of Pearson correlation, look at the table 5. in the Appendix.

Finally, H3b said that acquisitions have been more frequently used than mergers by the food producers who have used external growth strategies. Indeed, 73% of the respondents have embarked in a greater number of acquisitions, with only the 27% who have performed more mergers. This was proven by directly asking in the survey which one of the two has been predominant in the time span analyzed (The question appeared only to the firms who positively said they had performed any M&As). Using again the Z test calculator (Z test calculator.com), it is possible to prove that the two groups are significantly different from each other. This statistical test adds to the previous numerical data. Therefore H3b is clearly confirmed.

Chapter 6. - Conclusions

6.1 Summary and conclusions

This research thesis studied the diffusion of healthy food in Dutch and Italian food producers, and the use of external growth strategies in order to access them. Thanks to the use of the survey, it was possible to determine not only the extent of the healthy food's use, but also their importance on the portfolio of each firm, and the marketing prominence devoted them by the firms themselves. The results, discussed in the previous chapter, are mostly coherent with the direction taken by the literature review and the development of hypotheses. Particularly, two out of four hypotheses have been confirmed by the practice.

Healthy food had turned out to be more widespread than what originally hypothesized. The great majority of respondents have them in their portfolios, and high percentages of them are present in many firms. Italy results less focused on this market as of yet, with more firms not having any of the healthy products highlighted in this research, while the Netherlands is a more mature market for healthy food. This high diffusion also defines the trend for healthy eating as a lasting trend that is consolidating, and not as a fad or a momentary requirement by the customers. The market is indeed solid, as can be seen by the importance of these products in the portfolios. The fact the initial hypothesis was not supported can be due to a series of reasons. Among them the growth that healthy food had in the last years has been probably bigger than expected, and not taken adequately into consideration (since the consumption data available date back to some years ago). Moreover, it is possible that the two markets analyzed have a higher percentage of healthy food consumption than the average European standard. Marketing campaigns to promote healthy food are also widely used by a slight majority of respondents, both as independent campaigns and as campaigns developed for the whole range of products. The fact that advertisement is undertaken is also a sign of the growing importance of these products, and it follows the indications given by the literature, according to which healthy food needed more marketing efforts. Despite this, a striking 48% of the respondents still do not have a marketing campaign for their healthy products, symbolizing that producers still need to address the marketing issue better. Finally, the use of external growth strategies to access healthy food shows

the strategic behavior of companies, and how they have been planning and organizing their development over the last 5 years. The higher number of acquisitions represents an important data. Not only because it certifies the validity of the framework applied, but also because it shows that food producers are willing to invest, and spend money, in order to enter deeply in the healthy food market. They do so by acquiring other firms, which were more specialized in healthy food, or had FSAs that allowed them to enter in the market and exploit their strengths (Verbeke, 2013). Acquisitions (and even more mergers, which are done in a lesser extent, as proved by H3b) show a determination to stay in this market, and to keep investing. Indeed, while an alliance means a shorter-term agreement, useful when the synergies achieved and the goal reached is likely not to endure, M&As represent a long-term commitment by a firm, a willingness to enter definitely in this market.

The findings of the research have a twofold relevance, which will be discussed in the next sub-chapter. Consequently, its limitations, boundaries, and ideas for future research are also discussed.

6.2 Relevance of the research

This research is relevant both from a managerial point of view and from a theoretical point of view.

Concerning the managerial perspective, it is useful for senior management in food firms to know how the industry reacts to the changing trend, particularly when evaluating future possible strategic ways of reaction. The learning process can be enhanced thanks to the research and its outcome: The knowledge of how diffused healthy food production is among competitors can be a useful indicator for a food producer who wants to enter in the healthy food market or expand its current production. The high numbers seen are a pointer of how the market is growing, and of its bigger importance. A food producer can be encouraged by this in expanding its current healthy food production, or setting up an entirely new one. Of course, although valuable, this must be also enriched with further researches of the markets to give financial indicators of this trend (as suggested in the next session for future research). At the same time, the marketing insights can be a useful point, considering the importance of marketing campaigns for the success of healthy goods, and their still too limited use – as highlighted by the findings. Also whether a firm has allied or acquired more can be of use, in particular the adaptation of the framework to the

peculiarities of the single firm and the confirmation of the final trend.

From a theoretical point of view, the research shed some light on a topic that is yet not studied enough, as shown by the critical gap in the literature. Primary researches are necessary in order to start further specifications and knowledge creation. This can be used both to increase the knowledge of the healthy food market, and to put the milestones of a deeper understanding of the strategic behavior of the firms, in order to integrate the theories and create a broader vision.

6.3   Boundaries/Limitations and Future Research

The study presents some distinct boundaries, which define the borders of the research. Firstly, the study only focuses on the food producers and their strategic behavior to react to the healthy food trend. Therefore, the other parts of the value chain are not analyzed, even though they too had to adapt and use strategic decisions to respond to the trend. Future researches can address other parts in the value chain. Moreover, only a set of hypotheses is tested. These hypotheses focus on some general information and growth mechanisms that the firms might have used to expand their array of products and supply the demand for healthy products. Other methods, or more detailed analyses could be done in the future, based on the first basis of research obtained here.

Concerning the methodological limitation instead, although the survey method used is the most appropriate, as previously stated, it also presents some obvious limitations, the limited size of the population, the response rate and the impossibility to check the respondents' trustworthiness being the most important.

Finally, another limitation can be identified in the scope of the research. This paper analyzes only the trend of food producers, i.e. firstly whether they have healthy food in their product lines, secondly if they used external growth strategies, and lastly the use of marketing stances. Therefore, researches concerning the effectiveness and efficiency of their growth strategies and of the marketing approach, and even analysis concerning the profitability resulting by the production of healthy food, are not discussed here. Different field of studies can analyze these aspects. Indeed, it can be interesting and insightful to understand how profitable the healthy food part of the portfolio is, whether it is more, or less, profitable than the regular products. Or, for strategic management researchers to understand if the external growth strategies applied by the firms were actually successful, and delivered synergies and the other expected results. Or finally

for marketing researchers to scrutinize better and deeply the marketing campaigns used by food producers, to realize their efficacy. All these will be interesting topics for future research proposals.

Appendix

Correlations

		1			
1. No healthy food	Pearson Correlation		**12.** Meat and slaughtering products	Pearson Correlation	.329**
	Sig. (2-tailed)			Sig. (2-tailed)	.004
	N	74		N	74
2. Netherlands	Pearson Correlation	-.222	**13.** Dairy Products	Pearson Correlation	.027
	Sig. (2-tailed)	.058		Sig. (2-tailed)	.818
	N	74		N	74
3. Italy	Pearson Correlation	.222	**14.** Fresh fruits, vegetables and preserved fruits	Pearson Correlation	-.183
	Sig. (2-tailed)	.058		Sig. (2-tailed)	.118
	N	74		N	74
4. Employess <10	Pearson Correlation	-.066	**15.** Grain mills products and bakery products	Pearson Correlation	-.129
	Sig. (2-tailed)	.574		Sig. (2-tailed)	.273
	N	74		N	74
5. Emp. 10-50	Pearson Correlation	.178	**16.** Sugar and confectionery products	Pearson Correlation	-.148
	Sig. (2-tailed)	.130		Sig. (2-tailed)	.207
	N	74		N	74
6. Emp. 50-250	Pearson Correlation	.128	**17.** Other	Pearson Correlation	-.077
	Sig. (2-tailed)	.275		Sig. (2-tailed)	.512
	N	74		N	74
7. Emp. >250	Pearson Correlation	-.274*			
	Sig. (2-tailed)	.018			
	N	74			
8. Age 1-10	Pearson Correlation	.043			
	Sig. (2-tailed)	.715			
	N	74			
9. Age 11-20	Pearson Correlation	-.197			
	Sig. (2-tailed)	.092			
	N	74			
10. Age 21-30	Pearson Correlation	.028			
	Sig. (2-tailed)	.816			
	N	74			
11. Age >30	Pearson Correlation	.087			
	Sig. (2-tailed)	.459			
	N	74			

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. – Pearson Correlation. No healthy food

Correlations

		1	2
1. Alliances	Pearson Correlation		
	Sig. (2-tailed)		
	N	55	
2. M&As	Pearson Correlation	.408**	
	Sig. (2-tailed)	.002	
	N	55	55
3. Netherlands	Pearson Correlation	-.266*	-.091
	Sig. (2-tailed)	.049	.507
	N	55	55
4. Italy	Pearson Correlation	.266*	.091
	Sig. (2-tailed)	.049	.507
	N	55	55
5. Employess <10	Pearson Correlation	-.048	-.068
	Sig. (2-tailed)	.730	.622
	N	55	55
6. Emp. 10-50	Pearson Correlation	-.122	.117
	Sig. (2-tailed)	.373	.396
	N	55	55
7. Emp. 50-250	Pearson Correlation	-.136	-.255
	Sig. (2-tailed)	.322	.060
	N	55	55
8. Emp. >250	Pearson Correlation	.236	.210
	Sig. (2-tailed)	.082	.123
	N	55	55
9. Age 1-10	Pearson Correlation	.244	.146
	Sig. (2-tailed)	.073	.289
	N	55	55
10. Age 11-20	Pearson Correlation	-.134	-.191
	Sig. (2-tailed)	.331	.163
	N	55	55
11. Age 21-30	Pearson Correlation	.262	.205
	Sig. (2-tailed)	.053	.134
	N	55	55
12. Age >30	Pearson Correlation	-.220	-.094
	Sig. (2-tailed)	.106	.493
	N	55	55
13. Share 1%-5%	Pearson Correlation	.085	-.112
	Sig. (2-tailed)	.537	.414
	N	55	55
14. Share 6%-10%	Pearson Correlation	.003	.147
	Sig. (2-tailed)	.983	.283
	N	55	55
15. Share 10%-15%	Pearson Correlation	.117	.091
	Sig. (2-tailed)	.396	.509
	N	55	55
16. Share >15%	Pearson Correlation	-.204	-.083
	Sig. (2-tailed)	.134	.545
	N	55	55
17. Independent mrk campaign	Pearson Correlation	.342*	.189
	Sig. (2-tailed)	.011	.167
	N	55	55
18. Campaign integrated	Pearson Correlation	.003	-.221
	Sig. (2-tailed)	.983	.105
	N	55	55
19. Meat and slaughtering products	Pearson Correlation	.173	-.120
	Sig. (2-tailed)	.207	.382
	N	55	55
20. Dairy Products	Pearson Correlation	.063	-.083
	Sig. (2-tailed)	.646	.545
	N	55	55
21. Fresh fruits, vegetables and preserved fruits	Pearson Correlation	.041	.218
	Sig. (2-tailed)	.764	.109
	N	55	55
22. Grain mills products and bakery products	Pearson Correlation	-.195	.043
	Sig. (2-tailed)	.154	.756
	N	55	55
23. Sugar and confectionery products	Pearson Correlation	-.014	-.118
	Sig. (2-tailed)	.921	.391
	N	55	55
24. Other	Pearson Correlation	.018	.157
	Sig. (2-tailed)	.894	.251
	N	55	55

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 5. – Pearson Correlation. M&As and alliances

N.	Healthy Food Percentage	Type of Products
1	20%	Dairy Products;
2	30%	Bakery products;
3	40%	Fruit and vegetables;
4	50%	Bakery products;
5	60%	Meat alternatives;
6	65%	Food supplements;
7	95%	Fresh Fruit and vegetables;
8	95%	Fruit drinks;
9	100%	Meat, dairy, sugar and confectionary products;
10	100%	Bakery Products;
11	100%	Meat and slaughtering;
12	100%	Dairy products;
13	100%	Dairy products;
14	100%	Vegan and organic prepared food;

Table 3. – Description of firms with >15% of healthy food in their portfolios

References

- Aertsens J, Verbeke W, Mondelaers K, Van Huylenbroek G, 2009. Personal determinants of organic food consumption: A review. *British Food Journal*. Vol. 111 No. 10, pp. 1140-1167
- Asp H E, 1999. Factors affecting food decisions made by individual consumers. *Food Policy*. Vol. 24, pp. 287-294
- Barney J B, 1991. Firm resources and sustained competitive advantage. *Journal of Management.* Vol. 17, pp. 99-120
- Bech-Larsen T, Poulsen J, 2001. The acceptance of functional food in Denmark, Finland and the United States – A study of consumers' conjoint evaluations of the qualities of functional food and

perceptions of general health factors and cultural values. *Research of the Aarhus School of Business*

- Becker G S, 1966. A theory of the allocation of time. *Economic Journal*. Vol. 75, pp. 493-517

- Blaylock J, Smallwood D, Kassel K, Variyam J, Aldrich L, 1999. Economics, Food Choices and Nutrition. *Food Policy*, Vol. 24, pp. 269-286

- CFIA, 2014. Canadian Food Inspection Agency. Health claims. Available at: http://www.inspection.gc.ca/food/labelling/food-labelling-for-industry/health-claims/eng/1392834838383/1392834887794?chap=14#s40c14

- Classen N, 2014. Research Methods: Questionnaires. Design, administration and analysis. Unpublished material given during lectures.

- Cullinan G, Le Roux J, Weddigen R, 2004. When to walk away from a deal. *Harvard Business Review*. Pp. 96.104

- Data & Trend of the European Food and Drink Industry 2012. FooddrinkEurope

- Dilman D A, 1978. Mail and telephone survey: The design method. *John Wiley & Sons, New York, NY*. Accessed through Forza, 2002

- Dyer J H, Kale P, Singh H, 2004. When to ally and when to acquire. *Harvard Business Review*. July-August. Pp. 108-115

- Dyer J H, Singh H, 1998. The relational view: Cooperative strategies and sources of interorganizational competitive advantage. *The Academy of Management Review*. Vol. 23, N. 4, pp. 660-679

- European Commission, 2014. EU food market overview. Available at: http://ec.europa.eu/enterprise/sectors/food/eu-market/index_en.htm

- European Commission.eu. Enterprise and Industry. What is an SME? Available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/

- FDA – US Food and Drug Administration. January 2013. Guidance for Industry: A food labeling guide (9, Appendix A, definitions of nutrient content claims). Available at: http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064911.htm

- Federalimentare.it, 2013. Resoconto dell'industria alimentare 2013. Available at: www.federalimentare.it

- Flynn B B, Sakakibara S, Schroeder R G, Bates K A, Flynn E J, 1990. Empirical research methods in operational management. *Journal of Operation Management*. Vol. 9, N. 2, pp.- 250-284

- Food market structure: An Overview. Economic Research Service USDA, accessed on-line at http://www.ers.usda.gov/topics/food-markets-prices.aspx#.Up4RwZGsQds, updated at June 20 2013

- Forza C, 2002. Survey research in operations management: A process-based perspective. *International Journal of Operations & Production Management.* Vol. 22 No. 2, pp. 152-194

- Gallo A, 1996. Food Marketing Review. AER-743. US Department of Agriculture, Economic Research Service, Washington, DC

- Gray J, Armstrong G, Farley H, 2003. Opportunities and constraints in the functional food market. *Nutrition & Food Science.* Vol. 33, pp. 213-218

- Grunert K G, 2002. Current issues in the understanding of consumer food choice. *Trends in Food Science & Technology*, Vol. 13, pp. 275-285.

- Gulati R, Gillespie J, 2001. Alliances and Joint Ventures. In *International Encyclopedia of the Social and Behavioral Sciences*. *Elsevier Science,* pp. 392–397. As in: Van Wijk R, 2013

- Hearty A P, McCarthy S N, Kearney J M, Gibney M J, 2007. Relationship between attitudes towards healthy eating and dietary behavior, lifestyle and demographic factors in a representative ample of Irish adults. *Appetite*. Vol. 48, pp. 1-11

- Hoffmann W H, Schaper-Rinkel W, 2001. Acquire or ally? A strategic framework for deciding between acquisition and cooperation. *Management International Review*. Vol. 41, pp. 131-159

- Hughner Shaw R, McDonagh P, Prothero A, Schultz II C J, Stanton J, 2007. Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behavior.* Vol. 6, pp. 94-110

- Kotler P, Armstrong G, Wang V, Saunders J, 2008. Principles of marketing. 5th European Edition. *Pearson Education.* Chapter 1, pp. 8-9

- Lappalainen R, Kearney J,Gibney M, 1998. A pan EU survey of consumer attitudes to food, nutrition and health: An Overview. *Food Quality and Preference*, Vol. 9 No. 6, pp. 467-478

- LNV, 1992. Biologische Landbouw. Dutch Ministry of Agriculture, Nature Management, and Fisheries. Den Haag, The Netherlands

- Menrad K, 2001. Market and marketing of functional food in Europe. *Journal of Food Engineering.* Vol. 56, pp. 181 – 188

- Merriam-Webster, 2013. Accessed on-line at http://www.merriam-webster.com/dictionary/pressure%20group

- Moorman C, 1996. A quasi experiment to assess the consumer and the informational determinants of nutrition information processing activities: The case of the nutrition labeling and the

Education Act. *Journal of Public Policy and Marketing*. Vol. 15, N. 1, pp. 28-44

- Murphy A G, Hartell J, Càrdenas V, Skees J R, September 2012. Risk Management Instruments for Food Price Volatility and Weather Risk in Latin America and the Caribbean: The Use of Risk Management Instruments. Inter-American Development Bank.

- Orbis Database. Available on-line at: https://orbis.bvdinfo.com/version-2014515/Home.serv?product=orbisneo&loginfromcontext=ipaddress. Accessed via eur.nl

- Parker B J, 2003. Food for health. *Journal of Advertising*. Vol. 32, pp. 47-55.

- Przyrembel H, 2004. Food labeling in the EU and consumers information. *Trends in Food Science & Technology*. Vol. 15, pp. 360-365

- Qualtrics.com. Survey Internet Software. Available at: https://qtrial2014.az1.qualtrics.com/WRQualtricsControlPanel/?

- Rabobank Annual Market Forum, 2012 http://www.prnewswire.com/news-releases/china-will-continue-to-drive-agricultural-commodity-demand-for-next-decade-rabobank-client-poll-finds-183922591.html, December 18 2012

- Rogelberg S G, Stanton, J M, 2007. Understanding and dealing with organizational survey nonresponse. *Organizational Research Methods*. Vol. 10, No 2, pp. 195-209

- Roininen K, Lähteenmäki L, Tuorila H, 1999. Quantification of consumer attitudes to health and hedonic characteristics of foods. *Appetite*. Vol. 33, pp. 71-88

- Schifferstein H N J, Oude Ophuis P A M, 1998. Health- related determinants of organic food consumption in the Netherlands. *Food Quality and Preference*. Vol.9 No. 3, pp. 119-133

- SEC.com, 2011. Standard Industrial Classification (SIC) list. Available at: http://www.sec.gov/info/edgar/siccodes.htm

- Sirò I, Kápolna E, Kápolna B, Lugasi A, 2008. Functional food. Product development, marketing and consumer acceptance - A review. *Appetite*. Vol. 51, pp. 456-467

- Slangen A, 2013. Strategy and International Business. Unpublished material given during lectures

- Sun C Y-H, 2008. Health concern, food choice motives, and attitudes towards healthy eating: The mediating role of food choice motives. *Appetite.* Vol. 51, pp. 42-49

- Sutcliffe K M, Zaheer A, 1998. Uncertainty in the transaction environment: An empirical test. *Strategic Management Journal*. Vol. 19, pp. 1-23

- Teece D J, 1996. Firm organization, industrial structure, and technological innovation. *Journal of Economic Behavior and Organization*. Vol. 31, pp. 193.224

- The Agri-Food Sector- The Dutch and Agri Food. Ministry of Economics Affairs of The Netherlands, 2013. Accessed on-line at http://www.hollandtrade.com/sector-

information/agriculture-and-food/

- The Economist, February 23 2013. The horsemeat scandal: And the winner is. Available at http://www.economist.com/news/britain/21572230-what-horse-shy-consumers-are-eating-instead-and-winner

- Urala N, Lahteenmaki L, 2007. Consumer's changing attitudes toward functional food. *Food Quality and Preference*. Vol. 18, pp. 1-12

- Van Trijp H C M, van der Lans I A, 2006. Consumer perceptions of nutrition and health claims. *Appetite*. Vol. 48, pp. 305-324

- Van Wijk R, 2013. Corporate Development. Strategies for Acquisition and Alliances. Unpublished material given during lectures

- Verbeke A, 2013. International business strategy. Second Edition. Cambridge University Press, UK.

- Verbeke W, 2005. Consumer acceptance of functional foods: Socio-demographics, cognitive and attitudinal determinants. *Food quality and preference*. Vol. 16, pp. 45-57

- Wilcock A, Pun M, Khanona J, Aung M, 2004. Consumer attitudes, knowledge and behavior: A review of food safety issues. *Trends in Food Science & Technology*. Vol. 15, pp. 56-66

- Williamson O E, 1991. Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*. Vol. 36, pp. 269-296

- Zephyr Database. Available on-line at: https://zephyr.bvdinfo.com/version-2014521/home.serv?product=zephyrneo&loginfromcontext=ipaddress&cookietoken=a8f2f37eb79e40eead66d4a030. Accessed via eur.nl

- Z-test calculator. Available on-line at: https://www.mccallum-layton.co.uk/tools/statistic-calculators/z-test-for-proportions-dependent-groups-calculator/