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# FOOD CONSUMPTION AND HEALTH IN ITALY: THE ROLE OF INNOVATION

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***Abstract***

*During the last years, the increasingly close link between health and nutrition and the spread of chronic diseases, are emerging the need to develop innovative practices, due to ensure health and wellness to the community and also to guarantee more competitiveness to the agri-food sector. This paper aims to underline the central role of the innovation as an essential tool to meet the new needs expressed by consumers and to answer at the health problems related to nutrition. The work is part of the research project "In.be.sa" conducted by the University of Naples "Parthenope".*

**Key-words:** *nutrition, health, consumer's behavior, innovation, agri-food sector.*

## Nutrition, health and incidence of chronic diseases

During the last years, there has been a gradual estrangement from the traditional pattern of diet and it has become established a nutritional habit with high energy density, high fat content, especially saturated fats, which, combined with a sedentary lifestyle have led to the consideration of risk nutrition as a new and important risk factor for the collective health. The rapid increase of obesity, cardiovascular disease, diabetes and cancer is representing now the leading risk factor for human health. According to the data published by the World Health Organization, 86% of the deaths and 77% of the loss of years of healthy life, as well as 75% of healthcare costs in Europe and Italy, are caused by some diseases related to nutrition style and have in common modifiable risk factors such as obesity and overweight, alcohol abuse, low consumption of fruits and vegetables, physical inactivity, excess blood fats and hypertension. In particular, the incidence of chronic diseases related to obesity is clearly defined as *the most important public health problem worldwide*. The primary cause of obesity is due to these technological changes have resulted in a rapid lowering of food prices, especially those

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processed, and meals eaten outside home (Finkelstein *et al.*, 2005). In parallel, the average increase of income has led to an increase in food consumption (Traill, 2009). At the same time, from the economic point of view , the prevalence of obesity leads to significant effects in terms of increased costs that could affect the national health systems and in terms of lost productivity for the economy. This creates a negative externality, and therefore a market failure, associated with over-consumption of food (Banterle *et al.*, 2009; Mazzocchi *et al.,* 2009).

Studies by the World Health Organization show that the economic costs of obesity reached in some European countries, 1% of gross domestic product and account for 6% of direct health costs. In addition, indirect costs (e.g. premature deaths, reduced work productivity) are twice the direct ones. With specific reference to the Italian situation, the spread of chronic diseases and the increasing cases of obesity, have shown a growing trend in the last years, reaching alarming levels, especially with regard to the younger generations. According to recent data (ISTAT, 2007) we can say that the obesity rate among adults is about 10% (compared to 12.9% in Germany, 13.1% in Spain, 23% of the UK) but in the age group between 6 and 17 years, 1 child in 3 is overweight and 1 in 4 is obese, which is particularly alarming because the scientific evidences recognize to obesity in preadolescent and adolescent age a strong predictive capacity of the state of obesity in adulthood and, therefore, of the development of specific chronic diseases. Another important factor that characterizes the Italian situation is the significant discrepancy between the North and South. The southern regions, in fact, have a higher incidence rate of obesity and overweight (28.7%) compared to those of the North (19.3%). The presence of obese people is also higher in the strata of the population with low social status (ISTAT, 2007). Clearly, in this case the problem has substantial effects in economic terms, just consider that the national health expenditure to cope with such conditions amounted to 109 billion € (ISTAT, 2007) while the healthcare cost of obesity alone was estimated at 8 billion € (7.6% healthcare spending) with 1,700 € per person (Turchetti, 2009).

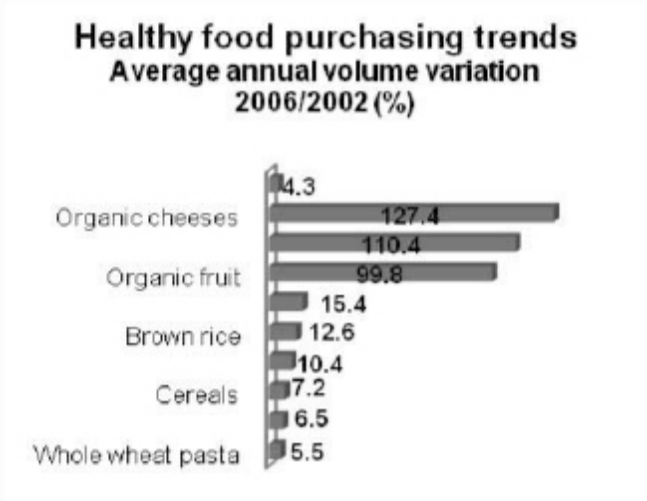
In this context it is evident, therefore, as the actors of the food chain must responsibly confront business challenges through the use of innovative strategies that support the health and safety of products offered. Investment in research and development as well as process and product innovations, play a central role in formulating and implementing food products that meet the growing needs of safety, quality and health expressed by consumers, who represent the key driver of sustainable innovation in the food sector (Esposti, 2005).

Based on such considerations, the paper aims to offer a reflection on the need to develop innovative practices, designed to ensure health and wellness to the community and to guarantee greater competitiveness of the agri-food sector.

## Food consumption evolution: consumers' increasing attention towards healthy products

As in recent years, we have witnessed the growth of food products that appeal to many and dissimilar consumers' values (Conner, 2004) many scholars have investigated the reasons behind these choices. Demonstrating that key elements to explain consumer behaviour are the decision-making process and the information processing of marketing stimuli (Verbeke, 2000). A general conclusion, that can be drawn from literature review, is that choice and consumption of a food product are based on a cognitive decision-making process and take account of external stimuli. Moreover, building on previous research, it can be said that understanding and explaining the process of food choice is to understand and explain how consumers perceive food quality. Bearing in mind that consumers perceive products as sets of attributes which determine the products performance and its utility, when they make purchasing decisions they do not necessarily purchase the product itself but its characteristics or attributes (Lancaster, 1966). Moreover, within the discipline of consumer behaviour, many authors have demonstrated that food-related behaviour, choice and preference are driven by a number of interrelated factors (e.g. Verbeke, 2006; Grunert, 2005) that can diverge even in relatively homogenous countries such as those belonging to the EU (Olsen *et al.*, 2007; Gracia & Albisu, 2001). In this portrayed scenario, consumers' interest in the relationship between diet and health has increased substantially in developed countries in recent decades. Indeed, research has shown that the consumer is today always more concerned about self-care and personal health and is seemingly demanding more information on how to achieve better health through diet. Trends in population demographics and socio-economic changes also point to the need for foods with added health benefits. An increase in life expectancy, resulting in an increase in the number of the elderly and the desire for an improved quality of life, as well as increasing costs of health care, has stimulated governments, researchers, health professionals and the food industry to observe how such changes can be managed more effectively. As a result, today foods are not intended only to provide necessary nutrients for humans but also to prevent nutrition-related diseases and improve the physical and mental well-being of consumers (e.g. Menrad, 2003; Roberfroid, 2002). Consequently, the development and marketing of a growing spectrum of products with different health characteristics is a major trend in today's food industry. In particular, several nationwide surveys have shown that Italian families (especially those with young children) seek quality and healthiness of food products ahead of price (AC Nielsen, 2007) in contrast with the general decrease in food purchases. Furthermore, as market features clearly show, the demand for healthy food products recorded during the five years period 2002/2006 in Italy, revealed the highest growth rate in purchase volumes (+ 4,3%) compared to other food clusters in the same time period (ISMEA, 2007). Moreover, within this group, many products have reached double-digit growth rates, such as cheese, organic extra virgin olive oil, brown rice and cane sugar (see Figure 1).

**Figure 1 – Trends in purchases of healthy foods in Italy**




Source: ISMEA – AC Nielsen Homescan, 2007.

## Innovation in agri-food and health protection

It is now widely accepted that innovation is one of the main variables that underlie the processes of growth and development. Indeed, it appears as a driving force not only for value creation by firms but also for the improvement of their sustainability. In this context, the innovation becomes the central element of business strategies aimed at sustainable competitiveness to meet the needs of consumers who are increasingly attentive to the issues of health, and to place the product on a non-price competition based on the quality and differentiation.

Even though Eurostat (2007), which classifies manufacturing industries according to technology (high, medium-high, medium, medium-low and low), the food industry has defined as an area of low-tech, and it is not included between the sectors "based on science" or "high technology", agribusiness in the last years has taken an significant innovative effort, driven by an increasing consumer's demand regarding quality and healthiness of products and a more differentiated demand.

It 'should be emphasized that although the issue of innovation has long been the center of the debate, it has not yet been indentified a definition universally accepted. The European Commission, within the Lisbon strategy, which supports the EU commitment to become the most dynamic knowledge-based and competitive economy in the world, defines innovation as: the renovation and enlargement of the range of products and services and their associated markets; the introduction of new methods of production, supply and distribution and skills of workers. (EU Council, 2005). OECD, however, argues that innovation is the ability to manage knowledge in order to

generate competitive advantage through the production of new goods, processes and organizational systems.

The innovation, who could then affect a change in organizational processes and production, or in the characteristics of products and markets, represents, without doubt, one of the main tools that can successfully combine competitiveness and sustainability. In particular, one of the questions that companies need to respond with more innovative solutions is represented by the healthiness of products. In fact, consumers seek safe products with a strong healthy connotation and require more information on production method and production environment.

This means that companies are required to design innovative ways that take account of the relationship between the environment- production and health, reduce the information asymmetry on issues relating to nutritional and quality characteristics of the product and aim high to specific products such as light, dietary and functional products. In light of the complex relationships between food, environment and health the adoption of the principles of integrated and organic farming, the application of *precision farming* are representing examples of innovation in production processes or products that have a major positive impact on degree of products healthiness. Also, in front of a functional food market in rapid development in the national and international context (Bech-Larsen & Scholderer, 2007; Verbeke, 2006; Sirò *et al.*, 2008) companies have to gear up to respond to these dynamics by which they can reap huge benefits in terms of diversification of production. Still, the use of responsible marketing which provides guidance on the proper consumption of food and on the health effects, it represents a form of innovation capable not only of directing the company to the needs of society but also to improve the degree of trust and loyalty of consumers. Although innovation is the key for the improvement of structural conditions of enterprises competitiveness for sustainable well-being, the Italian food industry has a low propensity for innovation. This dynamic recovering the Schumpeterian approach (1942) is closely linked to the presence of a productive system characterized by the presence of small and medium size enterprises. In fact, the limited availability of cash flow, the narrow range of products that makes it too risky the introduction of innovative products, are just some of the arguments supporting the thesis that the sizes of small and medium businesses are less oriented to ‘innovation. Consequently, there are necessary effective and targeted policies to promote and sustain innovation and better dissemination of innovative best practices capable to improve the health and the sustainability of production.

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