The Food Safety and Consumer Behavior

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Abstract: Food is becoming increasingly a world problem. Determining factors in food consumption are price, income, culture, desires, preferences, and food safety. Price and income are main factors but not the only guide for consumers. Food safety is becoming an equal factor in importance just as price and income in food consumption. Many individuals consider that potential risk of food consumption is too high compared to health benefits that they may provide. In recent times, because of food-related health crises, consumers are losing their confidence. Consumer confidence is lost and in order to regain the lost confidence, governments are setting high food standards, however, millions of people fall ill and economic cost is high. This article intends to provide an overview of the current food safety and consumer behavior, based on reviews of the existing literature.

Key words: Food safety, labels, healthy, organic, consumption, standard of living, ingredients.

1. Introduction

The notions of food safety and food security can be confused. Food safety and food quality are also terms that can often be confused. Safety in food means that consumers’ health may be damaged by food. This damage can come from poor sanitation, presence of microorganisms in foods, chemical residues, antibiotics, hormones, or food additives. So here the term is about food risks coming from several factors such as inadequate hygiene during the production, inadequate control and lack of preventive measures, misuse of chemicals, raw materials, water or any ingredients contaminated material during the production, improper storage and so on. Food security has to do with the possibility of access to food availability with respect to finding food. A person or family is considered to not have food if they are hungry or they live where there is not enough food. Despite increasing per capita food in the world, in recent decades, many countries today suffer lack of food. So each year, even in the USA, thousands of deaths and millions of illnesses are food-related with high hospitalization costs and lost labor productivity costs.

Rising income has changed significantly the consumers’ life style and dietary patterns, strongly increasing the interest in healthy life style and healthy food. As a result of increased standards of living, life dynamics are the need for more free time, changes in preferences and desires have changed consumer behavior. Changing eating habits has caused the consumer to ensure a healthy diet by paying attention to safety and nutrition of products, and the production of fruits and vegetables without pesticides, additives and preservatives which have preventive properties for different diseases. To other words, there is an increased preference for organic products and there is a readiness of consumers to pay a premium for such products.

The modern consumer does not eat the traditional three meals per day. They eat more frequently and smaller amount, eating products which require little time for preparation and can be eaten in short time (hamburgers, pizza, instant soups, cheese sticks). The lack of free time to prepare the food has resulted in decreasing the demand for products which require time to prepare and increasing the demand for ready meals.

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that are easy to prepare, or semi-prepared (peeled potatoes, canned soup, preserved vegetables, fish sticks, frozen pastry).

Factors of determination in food consumption are price, income, culture, and food safety. Price and income are not the only guide for consumers. In many consumer researches and studies, it is pointed out that food safety is one of the key factors in food consumption [1]. The affluent part of society is focused on consumption of safer organic products or products produced in natural conditions certified and labeled in accordance with the law. Increased use of pesticides and other chemicals in the food system is one of the consumer anxieties toward food safety.

When people eat more, they get more calories and vice versa. When they eat more calories than they burn off, their bodies store extra calories as fat. Having more body fat than optimally health is defined by experts overweight or obese (“obesity epidemic”).

Obesity comes from unhealthy food choices (like fast food) and family habits (like eating in front of the television instead of around a table), high-calorie, low-nutrient snacks and beverages, bigger portions of food, and less-active lifestyles. Sometimes people turn to food for emotional reasons (such as when they feel upset, anxious, sad, stressed out), smoking, hormonal imbalances, no quality sleep, genetic heritage etc.. When this happens, they often eat more than they need.

There are many reasons why overweight people need to do something about their weight problem, such as health, social, fashion, in the workplace, psychological effects, health and life insurance, surgical risks, interpersonal relationships, fertility and pregnancy problems, physical discomfort, exercise, and accidents.

This article intends to provide an overview of the current food safety and consumer behavior, based on reviews, studies and research of the existing literature.

Various diseases, obtained from the use of food products (meats, milk, vegetables and other products) have shaken consumer confidence in food safety. What governments and businesses are doing to retain the lost consumer confidence? The status of interventions in Kosovo, and what the agricultural and food producers of Kosovo have to do to succeed in the market.

2. Materials and Methods

This study is based on desk and field research including a variety of different sources, provided by different projects founded by domestic and international agencies, and international publications with topics on food security and consumer behavior, like:

The Food Marketing Institute’s survey of consumers (www.fmi.org/docs/foodsafety), FAO, USDA (www.epa.gov/oecaagct/tyf.html, March 10, 2011), The Center for Diseases and Control-CDC (http://www.travelan.org/international-travel/kosovo.php), Chemonics International, 2006, Inter-cooperation (IC), a Swiss NGO mandated a market study for Swiss Project for Horticultural Promotion in Kosovo.

It was very difficult to obtain data on diseases caused by food in Kosovo because Kosovo lacked an institutional setup to gather statistics; and accessibility of data from the Veterinary and Food Agency of Kosovo for these problems was limited. Such is the state of health of Kosovo’s agencies.

3. Results and Discussion

According to FMI [2], 69% of consumers consider product safety as a very important factor in food selection. Food safety is a major competitive element of the food industry.

To produce enough food quantity, pesticides are often used, but the high use of chemically produced food has consequences in consumer health. Different living organisms (insects, viruses, bacteria) caused losses before harvest, 35% of agriculture products on a global level, and losses during the stocking of agriculture products were about 20% additional damages, with the result of being able to feed a half of billion people [3].
Worldwide nearly one billion people are chronically hungry and nearly 2 billion lack food securities, meaning those families’ budgets are inadequate to buy enough food. Six million children die of hunger every year (17,000 every day). On the other hand, over one billion people in the world are overweight. The number of overweight people surpasses the number of undernourished people [4]. According to the U.S. Department of Agriculture (USDA) in one of the largest food producing countries in the world, one of six people are “food insecure” including 17 million children (USDA, 2009) [5].

Agricultural products, to be accepted by buyers in the marketplace, must meet government food safety standards in addition to meeting consumer desires and preferences. To ensure the safety of food (and thus the fruits and vegetables), the government sets high standards, however millions of people fall ill and the economic cost is high. In the USA, each year as many as 9,000 deaths and 6, 5-33 million illnesses are food related. Costs of hospitalization are estimated at over $3 billion a year, and costs for lost productivity are estimated to range between $6-9 billion [6]. But total costs for all food borne illnesses are much higher [7].

The USDA recommends American consumers consuming 5-13 servings of fruits and vegetables per day. Families with higher incomes consume more and wider varieties of fruits and vegetables compared to households with lower incomes.

Obesity has reached globally epidemic proportions, with more than 1 billion of all adults suffering from obesity. In the U.S. over 35% of adults are obese, and these percentages have an upward trend. In 2008, medical obesity costs were estimated at $147 billion [8]. Animals can suffer from obesity as well (obesity in German Shepherd dog is an example). The risk of death increases from 20% to 40% among overweight people. The Framingham heart study found that being overweight at age 40 reduced life expectancy by three years. This health problem affects young people as well as adults—one third of all children between the ages of 2 and 19 are overweight or obese.

Kosovo can be defined as a free trade economy with nearly two million consumers.

Purchasing power in Kosovo is very low, with over 60% of incomes going for elementary products (food and beverages), 50% of population is poor while 15% lives in extreme poverty (defined as the population without material means to provide 2,100 calories per day).

There is a widespread opinion the food products produced in Kosovo have the potential to bring diseases. According to the Centers for Disease Control (CDC) in the article titled: “Information about health for those who travel in Kosovo” [9], diseases from food and water are the main caused of disease in travelers to Kosovo. In another article entitled “The risk from food and water”, the usual infections in travelers are from food and water contaminated by Escherichia coli or E. coli (ETEC) bacteria.

In order to establish the legal basis for regulating the requirements in the field of nutrition, public health protection and determination of food quality and safety, Kosovo has adopted The Food Law (nr.03/L-016) based on EU Regulations 178/2002 (the general food law regulation) and Regulation 882/2004 (the regulation on official controls), under which food business operators will have primary responsibility for ensuring that the food they produce and sell is safe.

Official control of food safety and food hygiene is done by the veterinary and food agency of Kosovo. The agency is based on the model for the European food safety authority (EFSA) set out in EU Regulation 178/2002. The agency is an executive agency, whose task is to protect life and health by providing the highest level of food safety, including animal feed, animal health, animal welfare and food quality and safety of plant and animal origin. The agency is responsible for implementing Kosovo food safety policy in accordance with decisions of the agency’s management board, based on scientific evidence provided by Kosovo’s scientific institutions for food
safety. These institutions are the National Institute of Public Health, the Kosovo Institute of Agriculture, and the Kosovo Veterinary Laboratory. Basic laboratory activities of the Kosovo Veterinary Laboratory must meet conditions set by EU rules.

To provide quality food in Kosovo, a forum on food quality is established which consists of: ministry of agriculture, forestry and rural development, chamber of commerce, ministry of health, agency for food safety, veterinary institute, ministry of trade and industry, and the marketing support project. The forum is based on principles of hygiene, food safety and quality standards, seeking that domestic producers arrive at the quality and safety of their products according to agreed hygiene and food safety standards.

Kosovo food business operators in the food production and manufacturing sectors are already starting to develop and implement food safety management systems based on HACCP principles, which is helping those businesses to expand and to find new markets for their products.

In June of 2006 and June of 2007, two seminars were held in Pristina at the national level regarding food safety funded by the European Agency for Reconstruction Seminar titled “Project Development Control System for Food Security” (Development of a food safety Control System for Kosovo) (FSCK Project) [10]. The third seminar on the same subject was held in October 2008 with the aim to increase knowledge of food safety and quality, to lighten the work of government and food operators, to reinforce consumer confidence in food products produced in Kosovo and to implement HACCP standards and organic production.

Healthy eating is not yet promoted in Kosovo, or only at the initial phase, even though there is no doubt that nutrition is a major cause of various diseases which trigger great costs to society through drugs, medical, hospitalization and other public costs.

There is an opinion that some imported dairy products are safe for consumption, but meanwhile there is a shift in consumer behavior toward domestic products.

In the case of “Alpsko” milk from Slovenia, customers have expressed readiness to pay a higher price (even 15-20%) for this milk due to “food safety” compared with the country’s milk [11]. This also happens with other products. But on the other hand, according to some studies some consumers prefer local products rather than imported. This is due to various omissions that may be made at the border, which can make even quality products appear suspicious (such as meat, chicken meat and other products). For this reason some consumers prefer local products to imported products, but sometimes opinions are contradictory.

A consumer research (including 74 consumers and eight managers of major supermarkets within and outside Pristina such as “interex”, “ERA”, “Ben-Af”, “BeniDona”, “Intereminex”) intended to highlight whether consumers have knowledge of food safety (and dairy products). According to the survey most respondents did not care about products used for consumption at home. They prefer local dairy products to imported dairy products. Domestic products are trusted and the trust for domestic products is extensive. According to this survey, factors that impact buyers’ decisions are: the time of use, quality of product, product packaging, and product presentation.

Poor packaging (poor quality of material), and distribution, damage during transport and poor logos are creating bad impressions about the quality of these products. A quality logo (color), brand name, and product information for the containers are important factors in creating consumer confidence.

Intercooperation [12] (a Swiss NGO mandated a market study for Swiss Project for Horticultural Promotion in Kosovo) did an interview survey of fruits and vegetables among import companies located in
Prishtina and other major towns in Kosova. The primary data were then analyzed mainly by using descriptive statistics. Sample size was 46 interviewed companies: 23 (50 %) from Prishtina, 5 from Prizren, 5 from Peja, 4 from Mitrovica, 4 from Podujeva, 2 from Vushtrri, 1 from Gjilan, 1 from Krusha e Madhe and 1 from Bujanovc. Reasons why Kosovo’s produce can compete with imported fruit and vegetable products according to respondents summarized in the following: Better quality, cheaper, favorable production conditions, and patriotic reasons.

Quality of domestic fruit and vegetable products was ranked as the most important attribute in competition with imported produce, followed by price and packing. Among locally produced fruits and vegetables, more competitive are Pepper (22%), Tomatoes (21%), Cucumbers (16%), and competitive fruits-watermelon (6%), apple (3%), grape (3%), according to response of interviewees.

Recently, there has been increased concern about food-born illness linked with fruits and vegetables, which has had an effect on consumers and purchasing behavior. US farmers have lost confidence in consumers’ eyes [13]. The food marketing institute’s survey of consumers reported that consumer confidence fell from 82 % in 2006 to 66 % in 2007 [14]. Respondents considered that locally produced fresh products (local area is defined as 7 hours drive) are definitely superior (22%) or somewhat superior (25%) compared to other domestic products (as well as domestic products compared to imported fresh produce sources). Freshness of produce is of big importance too in purchase decision.

Many individuals consider that the potential risk of consuming fresh fruits and vegetables is too high compared to the health benefits that they may provide.

The preferences of Kosovo consumers for vegetables and fruits were the subject of another intercooperation study entitled: “Consumption habits and purchasing behaviors in Kosovo” [15]. In this project, 1,026 Kosovo households were interviewed, respectively 65% urban households and 35% rural households.

Above 55% of the Kosovo inhabitants prefer fruits and vegetables produced in Kosovo, while above 60% of them think that Kosovo products are better or the same quality as those which are being imported. The advantage of Kosovo producers is freshness, as well as the price of these products. Dried fruits are traditional while dried vegetables are rare, excluding white beans.

Other main findings of the study are: purchases of fruits and vegetables represent approximately 36% of the total food budget, but the purchase of processed fruits and vegetables is minimal. Price and freshness of fruits and vegetables are main factors in purchasing decisions, while other attributes like cleanliness and taste are of less importance in the purchase decision-making of Kosovars. Good quality is defined by freshness, flavor, cleanliness, and price. Consumers rely on their judgment at the point of sale rather on identified brands. The main advantage of the local products is definitely their freshness and to a lesser extent their more attractive price. The most popular vegetables are tomatoes, peppers, and potatoes. The most popular fruits (meaning the ones consumed in the biggest quantities) are bananas and apples. The vast majority of the population seems to be satisfied with the fruits and vegetables offered in Kosovo. 95% of the population would not continue to buy imported products if there was a local alternative; the perception is that the produce from Kosovo at least of an equal quality to the imports. The consumers mainly buy fruits and vegetables from markets (59%) and wholesale, discount shops or directly from the trucks (19%). The main reason for choosing this point of sale is the display of good products (39%), a favorable price (34%), and convenience because of its close location (21%). Special fruits and vegetables for special occasions are bought by 35% of the population. Only 29% of the population is familiar with winter vegetables, meaning that most of the consumption is oriented towards summer fruits and vegetables [16].
4. Conclusions

At the end of two decades of the last century and the beginning of this century, the consumption behavior of consumers of food products has changed significantly. This change has been caused by a number of factors. Raising the standard of living and the desire to live longer and better has led to consumer demand for healthy food that provides good health increase. Food-related health crises in recent times have decreased consumer confidence. Mad cow disease, dioxin in milk, swine flu and other diseases that come from food have shaken consumer confidence in food safety. To rebuild consumers’ trust and confidence in the food safety from the farm to the table, governments are enacting high standards for food, animal health and welfare, and plant health. To detect hazards in food effectively, governments have created early warning systems and strict rules for the safety of food products. Even with significant improvements by incorporating higher standards of food safety, however, millions of people become ill each year and the economic cost is very high ($360 billion annually).

To export food and agriculture products not only in the EU market but also in other markets (e.g., the U.S.), producers in Kosovo must meet high standards of food safety (such as residue free pesticide, food without additives, low drug residues, and contaminants, etc.). Kosovo is a country that has emerged from a war, with a destroyed economy, with products that do not enjoy a secure. Those products must meet high standards by the CAC (Codex Alimentarius Commission). Kosovo has created a legal and institutional framework for food safety. In addition, food manufacturers have begun to develop and implement better food safety management systems based on HACCP principles. Government support will be of great help.

Healthy eating is at an early stage, and no doubt certain “suspicious foods” that have entered Kosovo in the last decade have been the cause of a number of major fatal diseases, for which disease statistics are missing. Those diseases trigger great societal costs through drugs, medical hospitalization and other public costs. The government’s contribution in this direction is huge in terms of defining high standards on food safety, consumer protection, and in conducting different educational programs.

Data from surveys of consumer opinions and behaviors in Kosovo are contradictory [17]. Consumers claim that local products do not differ from those imported, and they even have doubts about the quality of imported products due to suspected omissions that are made on the occasion of import boundaries, dubious quality products. However, they purchase and consume these imported products. On the other hand, they have some doubts also in domestic products, being suspicious of their safety (use of pesticides, hormones, additives).

To compete with imported products, Kosovo producers should have better understanding of marketing concepts. Manufacturers from developed countries base their business on marketing philosophy, but Kosovo producers do not. To face a strong competition with those of foreign manufacturers, local manufacturers need to communicate with the market. They should investigate consumer opinions, desires, and needs. Local or domestic producers must convince consumers that their products meet the requirements of quality standards and assurance of food safety. This can be promoted through better packing and grading, proper labeling designs, product presentation, product branding, and competitive prices.

Freshness of product is of great importance to consumers on buying behavior, ranking at the same level with price. Information regarding the freshness of local products will be a major competitive factor of local producers competing with importers from foreign. To do this, they should convince the market, the buyers, and consumers.

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