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Food Safety Awareness in the Developing Countries – A Literature Review

Dr. Subrahmanian Muthuraman¹ & S. Chandrasekaran²

¹Assistant Professor, Faculty of Business Studies, Arab Open University, Sultanate of Oman

²Assistant Professor, Department of Management Studies, Easwari Engineering College, Chennai, India

Introduction

Food is a stuff consumed to provide dietary support for a human being. Food ultimate sources from plants or animal origin, and contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals. Agriculture is the single largest employer in the world. Food retail market was valued at USD 5,643.6 billion in 2013 and is expected to grow at a CAGR of 6.1% from 2014 to 2020, to reach an estimated value of USD 8,541.9 billion in 2020. The food is digested by the organism's cells to produce energy, sustain life, or excite growth. Retail shops are the key source of information and source of buying of Food Products.

Consumers ask innovative products on the basis of different quality characteristics such as strength, safety, masterpiece, better health effects, environment surroundings protection, etc. The concept of halal products or foods is now gaining a worldwide discussion due to its recognition as a substitute benchmark for safety, hygiene and quality assurance of what we consume or drink daily. Thus, products or foods that are produced in line with halal prescriptions are willingly acceptable by Muslim consumers as well as consumers from other religions. For a Muslim consumer, halal foods and drinks mean that the products have met the requirements laid down by the Shariah law whereas for a non-Muslim consumer, it represents the symbol of hygiene, quality and safety product when produced strictly under the Holistic Halal Assurance Management System.

The consumers are much concerned and always be aware of what they eat, drink and use. The awareness of the Muslim and non-Muslim consumers describes their perception and cognitive reaction to products or foods in the market. As such, their awareness is an internal state or a intuitive feeling by way of sensory perception towards the products/foods they used or consumed. The health reason is the most contributing predictor of level of halal awareness. The food market is expected to bring in revenue by 2020 of \$3.03 trillion, registering a compound annual growth rate (CAGR) of 4.5 percent from 2015 to 2020. The global food retail industry includes various types of food products such as cereals, meat, packed foods, organic food items, breads, vegetables and fruits, seafood, dairy products, including ice creams, milk items and others and various other household food items.

The global food retail markets incorporate the retail sales of variety of food products, both packaged and unpackaged, along with retail sales of alcoholic beverages and non-alcoholic beverages. Alcoholic beverages include beers, wines, spirits, cocktails and others whereas non-alcoholic beverages include soda, soft drinks, juices, fizzy drinks and others.

Problem Identification

Sign of pervasive poverty and massive underinvestment in agriculture considered as issue. No amount of trans fat is good or healthy. Eating foods that contain it can increase your LDL (bad) cholesterol, lower HDL (good) cholesterol, and increase your risk for type 2 diabetes and heart disease. Globally discussions regarding foreign direct investment (FDI) in retail are currently under way, and if it is approved by the appropriate government it may add benefits to the food retail industry. Globally Consumer awareness towards packaged food and its health conscious should be improved among the consumers. Dominance of unorganized retail sector has a dramatic impact towards food safety standards due to price factor.

Need for the study

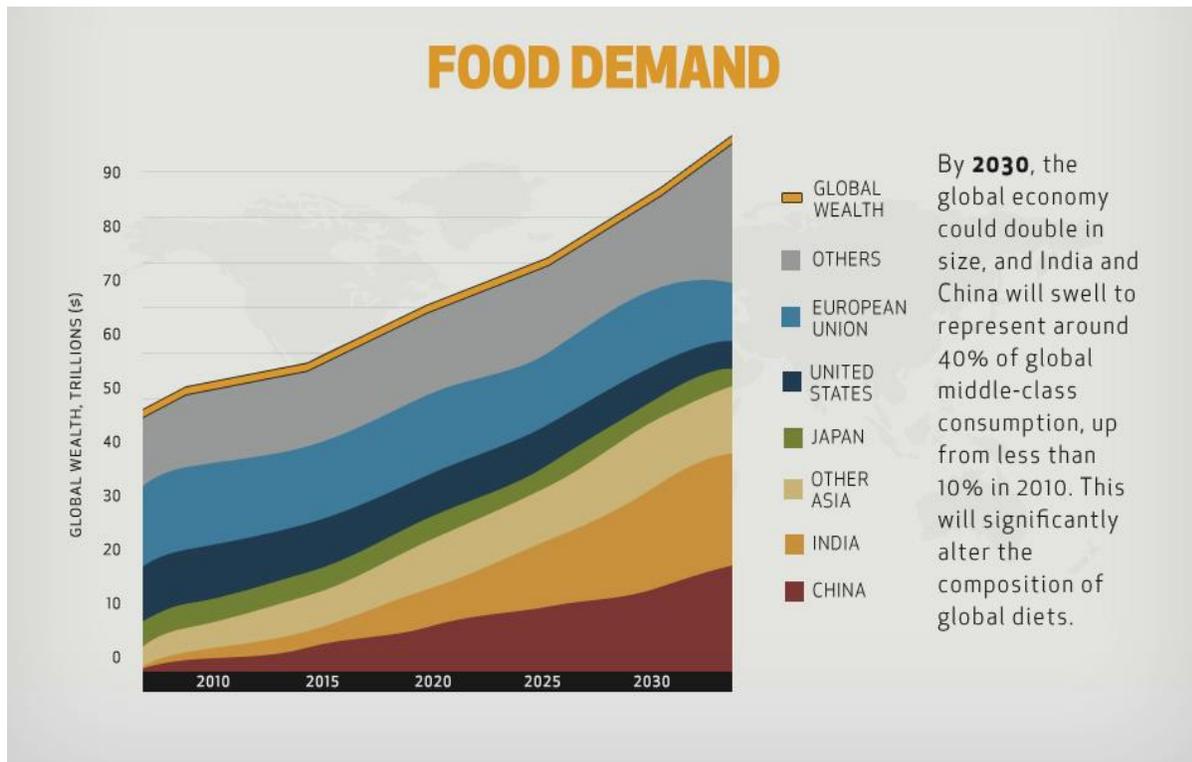
Global food retail market is tremendously contributing in the growth of several other industries such as food packaging and food processing industries. These industries are responsible for creating jobs and generating employment at a large scale. Large food retailers usually offer their

own brands along with well established brands. Governments of different countries have taken various measures to ensure food safety and hygiene of food products; these are some reasons fueling the growth of food retail market.

Facts & Statistics

1. Poor people in developing countries often spend 60-80% of their income on food.
2. 75% of the world's food is generated from only 12 plants and 5 animal species.
3. 165 million people suffer from childhood malnutrition.
4. Over 25 million tons of pumpkins, squash, and gourds are produced around the world each year.
5. Americans waste about 141 trillion calories worth of food every day.
6. More than 9 out of 10 farms in the world are family farms.
7. Women make up 43% of the agricultural labor force in developing countries, and account for about two-thirds of the world's 600 million livestock keepers.
8. By 2030, global food demand is expected to rise by 35%
9. By 2030, only 1 in 7 people are expected to be consuming less than 2,500 calories per day.
10. Grains make up 45% of the world's diet.
11. Insects are among the most efficient forms of food available.
12. Agriculture provides jobs for around 40% of the world's population.
13. Africa's total area is more than three times that of the US. Yet, the area of irrigated land in Africa is only 26.6% more than that of the US.
14. In Africa, 97% of staple crops are fed primarily through rainfall.
15. Top 15 global supermarket companies account for more than 30% of world supermarket sales.
16. According to a U.S.-based research firm, about 1.5 billion households globally would be in the middle-class category by 2020.
17. According to the Food Institute's analysis of data from the Bureau of Labor Statistics, millennials alone spend 44 percent of their budget's food dollars on eating out. In comparison to 40 years ago, the average American family now spends half their food budget on restaurant food.

Figure 1: Global food demand

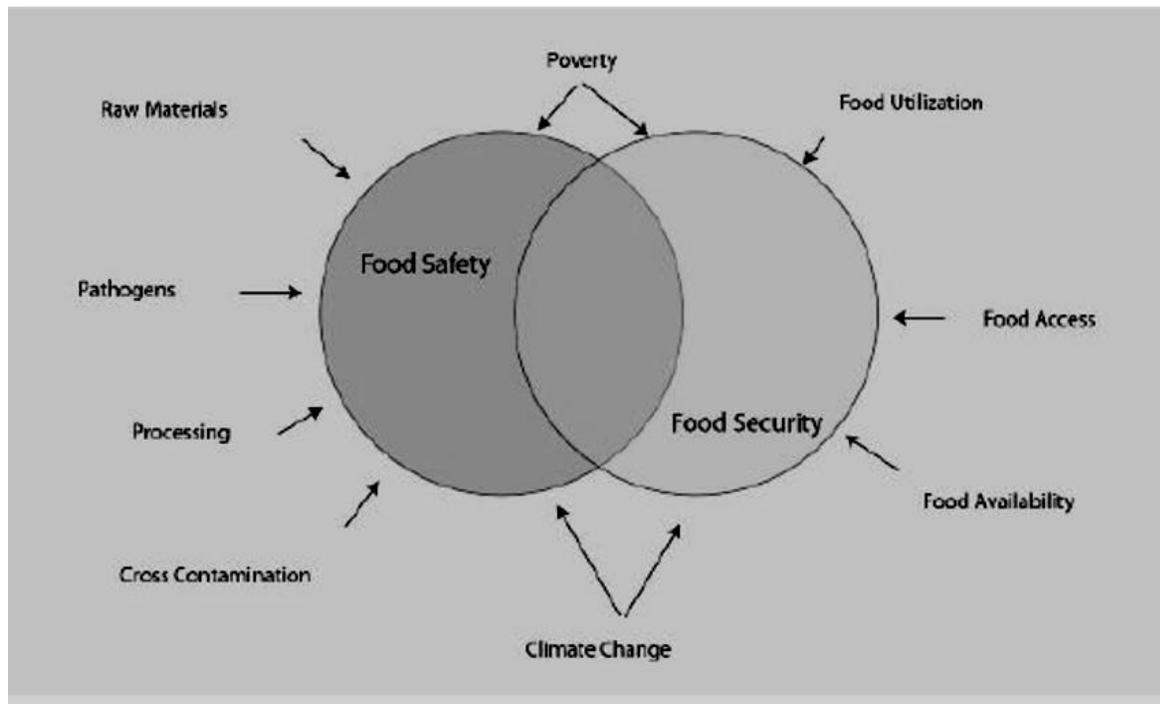


(Source: www.one.org/us/)

Figure 2 : Food safety: A global view



(Source: World health organization facts 2016)

Figure 3: Interrelationship between Food safety and Food security

(Source: Vijay Kumar Chattu (2015), International Journal of Advanced Research)

Literature Reviews

Dr. Rita, Anupreet Kaur, Kanupriya (2016) The Impact of Controversy Of “Nestle’s Maggi” On Consumers and The Company Volume 1, Issue 1. The Maggi controversy has shattered many hearts, as found MSG (Monosodium Glutamate) and Lead more than standard limit. This paper shows the impact of controversy on the consumer mind set and the company itself. Maggi got drop in sales and profit. But after coming back, it was concluded from the study that Maggi is the most preferred noodle brand among noodle consumers. 82% people still trust Maggi beside all the adulteration and controversy. The study showed that beside the entire quarrel faced by Maggi, consumer’s opinion about their loved product didn’t change much. They kept supporting and were eager for its comeback. Infact only 28% people witnessed variation in their consumption while all this controversy had no impact over the consumption pattern on rest of the population.

Zull ariff abdul latiff, Mohammed Amizi Ayob(2015) Consumption Awareness of Indian Community towards Food Label in Klang, Selangor, Research explores that theory of planned

behavior (TPB) concept explains the Indian consumers awareness in consuming food products with food labels. Survey was conducted among 300 respondents. The study resulting with presence of labels has significant relationship with awareness of Indian consumers in buying and consuming food products.

FSSAI (June 5, 2015) Food Safety and Standards Authority of India ordered a recall of all nine approved variants of Maggi instant noodles and oats masala noodles from India, suggesting them unsafe and hazardous for human consumption.

Ahmed sheikh (2013) conducted a research on Acceptance and consumption pattern of Maggi Noodles at Delhi residents. Study suggests effectiveness of promotional activities should be increased, Nutritional value should be improved like fat content should be reduced and other minerals should be added in the product, Establish Nestle's own flagship outlet, Educate, Consumer through campaign, Use the package to describe the nutritious benefits. People buy Maggi noodles because they see some nutritional value in the product. Consumers believe Maggi noodles contain calcium & iron which is god for health. This product has not appealed to health-conscious people because there are other substitutes (health supplements) available in the market.

Pughazhendi et al. (2012), As per them in emerging markets advertisers use dominant celebrities in ads to promote their product image. Single and multiple celebrity involvement in ads affect buying Behavior in different ways. This study shows that consumer Behavior and attitude regarding brand, ads and purchase decision are positively affects by multiple celebrities.

M. Bala Swamy, T. Anil Kumar, K. Srinivasarao (2012) study on Buying behavior towards instant food products at Andhrapradesh, International Journal of research and computational technology reveals However, the level of food safety behavior awareness skills was higher among the females at the secondary level than their male colleagues. The secondary level females also showed higher levels skills than their female counterparts at the tertiary level. Consumers' self-reported food safety practices do not appear to be good predictors of their actual behavior. Research done in 2008 on Consumers' awareness of food safety from shopping to eating showed that whenever the

findings of observational food safety studies were compared to self-reported behavior, evidence showed, that consumers reported that they follow safety guidelines even when they did not.

Bashir and Malik (2009) stated that celebrities used in ads have greater positive influence on people. Most of the times, people rely on advertisements rather than other sources like family, friends and reference group opinions regarding product.

Katyal (2007) According to katyal marketers spend enormous amount of money annually on celebrity endorsement contracts based on the belief that celebrities are effective spokespeople for their products or brands.

Ataman and Ulengin (2003) According to him the strength of the relationship between the consumer and the brand will reflect the fit between the consumer's own physical and psychological needs and the brand's functional attributes and symbolic values as perceived by the consumer, which create Maggi as a brand in the minds of the people.

According to Del Rio et al. (2001) explained that customers recognize the value of any brand with respect to its different functions like guarantee, social and personal identification and status symbol. These factors have positive effects on customer's brand loyalty and willingness to accept extension in brands. Brand association has a positive relation with buyer purchasing intentions.

A major 2006 study of 135,000 people found that those who frequently ate grilled skinless chicken had a staggering 52 percent higher risk of bladder cancer than people who never ate it.

Discussion

All Countries needs to embrace structural changes to ensure food safety for future generations. The main concern stems from the Food Safety Standards Authorities should have strict guidelines. This has been enacted in accordance with international codex guidelines. There are a lot of provisions in the Act that require revamping, but what we're seeing is a patchwork implementation of both old and guidelines as well as the new with respect to Food Adulteration. The government should completely renovate the Food Safety and Standards and state authorities.

The food products should display its labeling to ensure it does not violate food safety norms. Routine checks for packaged food items to check for any contravention as per Food Safety and Standards, Act should be begun. Nutrition labeling refers to the standardized presentation of the food. The food label is one of the most important and direct means of communicating product information between buyers and sellers. Food labels are to provide consumers with information about the environmental, technical, and socioeconomic conditions under which the products were produced, as well as the health and safety aspects of food products.

The information about nutrition labeling and health benefits of the food is one of the important factors that influence decision making. The restraining impact of lack of supply chain effectiveness in less developed countries is expected to be medium in the short and medium terms, and low in the long term. Government investment in infrastructure and the entry of global food processing companies in developing countries are expected to minimize the impact of supply chain-related restraints.

The modern package label has taken the responsibility for educating the consumer about the product by multitasking such as, attracting, promoting and motivating at the point of purchase through the information on the label. The labels were closely observed for nutrient contents declaration on calories, fat, protein dietary fiber, vitamins and mineral content either as percentage daily value or recommended dietary intake (RDI), or per 100gms or 100 ml or per serving size. Nutrients profile should be displayed.

There is a need for effective nutritional education for young consumers has become increasingly apparent, given their general food habits and behaviour, particularly during adolescence and analyzed that the interaction between young consumers' food preferences and their nutritional awareness behaviour, within three environments (home, school and social).

The safety of perishable foods depended on temperature control through all stages of the cold chain. These stages include the production, transport and storage of food items both in retail display and in the domestic kitchen. The packing of chilled perishable food items into the

refrigerator after returning home from shopping contributes to the cold chain. Behaviors such as these help to determine the food safety attitude of consumers and can also contribute to an understanding of their actual food safety behavior.

Important sub sectors in food processing industries are fruit and vegetable processing, fish-processing, milk processing, meat and poultry processing, packaged/convenience foods, alcoholic beverages and soft drinks and grain processing. Research recommends suggested that food preferences are often of a 'fast food' type and consequently the food habits of many young consumers may fuel the consumption of poorly nutritionally balanced meals.

Consumer should aware of commonly available and used instant food products such as puliogare, jamun mix, sambar masala, pickles, coriander powder, turmeric powder, chicken masala, bisibele bath mix, noodles, vermicelli including the other important products such as soft drinks, chips, jams and jellies and sauce to a larger extent.

Everyone is aware that fruit and vegetables are beneficial for our health, therefore the idea of juicing/juice diets seem like a great way to add our daily servings to our diet. However, consuming just juice alone could lead to potential health problems. There are many different varieties of juice diets or cleanses, some require one or two meals to be replaced with a juice whilst others only permit liquids to be consumed.

Conclusion

As consumers, we play a vital role in the health of the economy local, national or internationally. Trust plays a major factor when a consumer buys a particular product. With harmful chemicals like lead and MSG found in major selling noodles brands across the country, consumers must feel their health is at stake. Food safety demands adequate oversight and inspection at each step of the food production and supply chain. It is aware that the food processing industry is one of the largest in terms of production, consumption, export and growth prospects.

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