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Policy Paper

Mandatory nutrition labeling and implications for food companies in India

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Abstract

Nutritional labeling has been made mandatory in India for all processed food products. Government intervention is aimed at achieving the social goals of improved health status for the people and streamlining the country's regulatory environment with the international requirements. Economic literature suggests that mandatory labeling helps in reducing the problems of asymmetric information which improves market efficiency. Consumers will benefit in terms of availability of nutritional information which enables them to make informed choice about food products. Product reformulation is another benefit of the regulation as companies would prefer reformulating the product rather than losing sales due to disclosure of negative product characteristics. At the same time the regulation would result in cost implications for the food companies, particularly companies in the small sector. Therefore, it is pertinent that the Government provide continued support to food companies in terms of technical and financial assistance. Besides clear guidelines, testing facilities and enforcement mechanisms are some of the critical factors for the successful implementation of the regulation. Food companies may also increase their profitability by developing differentiated food products based on specific nutrient characteristics. The regulation would only help food companies to be competitive in the global markets.

Keywords: Nutritional Labeling, Nutritional Information, Product Differentiation, Product Reformulation, Health, Food Quality.

Introduction

Nutritional labeling on processed food and beverage products has been made mandatory in India in accordance with the World Trade Organization (WTO) agreements. The regulation will benefit consumers in terms of additional product information for its nutritional contents as food safety and quality are increasingly becoming important factors for them in making buying decisions. On the other hand, regulation will result in major cost implications for the food companies, particularly domestic companies in small scale sector. This can be an opportunity too for the companies to advertise their products based on certain nutritional characteristics. However, the companies will only benefit in case there is substantial consumer awareness for the use of such food labels. In fact

a recent internet based survey by Nielsen Company in 51 countries finds that about 71% of Indians take notice of packaged goods' labels containing nutritional information and 59% of Indians mostly understand the nutritional panels and labels. With 59%, India also tops Asia-Pacific in its understanding of nutritional labels [1]. North Americans lead the race in understanding food labeling with 67%. The survey results are encouraging for the food companies focusing on Indian domestic markets. For the export oriented Indian companies too it is crucial to have products that meet the regulations set by the importing countries and to provide products that are acceptable to the consumers in these countries. In fact the quality competitiveness has become as important as the price competitiveness of the products. Gone are the days when international trade was explained solely on the basis of traditional economic theory of comparative advantage. Thus mandatory food labeling in India has raised a plethora of supply and demand side issues. The present paper analyses some of the issues related to mandatory food labeling which includes implications for food companies, benefits and costs of nutritional labeling, role of public agencies and other economic issues associated with it.

Should Nutrition Labeling be Mandatory?

For efficient functioning of the markets it is required that information pertaining to product attributes flow in a smooth manner. The nutrient labels ensure that not only the consumer can make an efficient choice but also enables the producer to design product attributes favoured by the consumers. Akerlof [2] attributed that the markets where sellers have information about product quality that cannot be credibly conveyed to the buyers only poor-quality products will be sold and, in the extreme case, the market may collapse. The importance of labeling is not less in Indian scenario. The country is already on a verge of massive expansion in the food processing sector as envisaged in the Government plans that the sector will grow by three fold from \$70 billion in 2005 to around \$210 billion in 2015; the level of processing of perishables will increase from 6% to 20%; value addition will increase from 20% to 35%; and share of country's export will increase from 1.5% to 3%. The expansion in the sector can be attributed to various demand and supply side factors. On demand side increased real wages, more women in labour force and changing life style have increased the value of time and demand for convenience. On supply side the technological advancement in food processing have enabled industry to provide variety of processed food and beverages. With the huge expansion prospects of food business in India the mandatory labeling will only ensure efficient functioning of markets. Also with quality and food safety issues becoming pertinent in the post WTO scenario, Indian companies also need to follow quality management systems in accordance to global standards. Regulation to make nutritional labeling mandatory in the country is only another such step in this direction of making Indian companies competitive.

As per the mandatory labeling regulation all processed food and beverage makers need to declare ingredients, weight, total calories (energy value), amounts of protein, carbohydrate, fat, sodium (salt), sugars, dietary fibre, vitamins and minerals, and amount of trans fats in food and beverages. Prior to implementation of mandatory labeling food processors were required to include nutrition information on their products only if they made claims about the nutrient content of the food. Nutritional contents of a food product are credence attributes which are not known to consumers from inspection or even after consumption. Food companies however have such information as they know about the ingredients and the method of processing. This creates asymmetry of information in the market. In fact there are two important reasons cited in the economic literature for mandatory labeling. One is to correct the asymmetric or imperfect information and the other being to correct the externalities. The Government has a number of policy tools as taxes and production regulation etc to correct for asymmetric information and externalities. However labeling is the most appropriate tool if consumer preferences differ widely with respect to product

characteristics [3]. As consumers have varied preferences labeling allows them to match the individual preferences with the individual purchases.

Asymmetric information means that the buyer does not fully know the relevant information about the product that the seller knows i.e. market supplies too little information to enable consumers to make consumption choices reflecting their preferences. The nutritional labeling on food implies additional costs for food companies resulting in higher food prices. Therefore food companies will only provide the information in case sales revenue rises more than the cost of labels. Further small scale sector accounting for about 33% of Indian food processing sector finds labeling cost prohibitive. Imperfect information occurs when the relevant information does not exist or is contradictory. For example when long term effects of certain food attributes are unknown or when scientific opinion differs about the health consequences of consumption. Thus presence of asymmetric or imperfect information diminishes the market efficiency and reduces social welfare. The asymmetry of information in Indian markets justifies the Government intervention for nutrition labeling. Labels may help confused consumers make choices that better reflect their preferences. In case of Government intervention in labeling, one goal is to influence individual consumption choices to align them with social objectives [3]. In case of imperfect information too, full disclosure of even preliminary or contradictory information would help consumer to make informed choices.

In freely functioning efficient markets, food companies having superior quality products will always provide nutritional information so as to get premium for their product attributes. This competitive pressure leads to increased availability of product information by food companies. This largely depends on the consumer awareness for food labels and willingness to provide incentive for superior quality products. In absence of such conditions food companies will find it difficult to disclose voluntarily the nutritional information and thus mandatory labeling becomes pertinent for efficient functioning of markets. Taking cue from the increasing consumer demand for information and in the process of differentiating its products PepsiCo's food company, Frito-Lay, included nutritional labels for all its products which emphasizes on the attributes such as the product being free of trans-fat and MSG. The mandatory labeling will also pressurize companies to reformulate their products which have negative credence attributes pertaining to nutritional contents. In the process the overall nutritive value of food products in the market will be improved and the consumers who do not read the labels will also benefit.

Historically Indian customs and traditions have given lot of importance to nutritive and wholesome food. In fact *Upanishad*-s, the ancient Indian scripture, considered food as the primary condition of all life and thought. The *Upanishadic* emphasis on *prāna* (Life) is the emphasis on energy. Energy in indivisible form flows in many channels. The control of the mind is closely associated with the control of the physical body. The physical body, like the mind, is to be nourished with wholesome food. The consumption of nutritional food is not only important for individuals but it has wider social implications. Individuals while making the food choice hardly realize that their personal choices can affect the societal welfare. Individual consumption choices have impact on the social welfare including environment, agriculture and industry. For example individuals having diets high in saturated fat runs risk of having heart diseases and cancer. This results in cost implications not only for themselves but also for employers and public health systems. Conversely diet rich in fibre or low cholesterol food as oats etc may lower the risk of heart diseases enhancing productive capacity of the economy and societal gains. It is therefore for this reason that mandatory nutritional labeling becomes necessary to correct problems of externalities in the market. Mandatory labeling in such cases is done to influence consumer choices to maximize social welfare.

What are the Benefits and Costs of Mandatory Labeling?

"There Ain't No Such Thing As A Free Lunch", the adage frequently used by Milton Friedman, the Nobel Prize Winning Economist, means that whatever goods and services are provided, they must be paid for by someone. The nutritional information would always be advantageous to consumers in making the informed choices but there is going to be cost associated with it even if it is only a one time cost. The cost of labeling for food companies are in terms of administrative costs as interpretation of the labeling requirements etc, laboratory analysis of food for ascertaining nutrient contents, printing costs due to change in labels and reformulation costs. As per the study on impact of mandatory nutritional labeling in European Union, 49% of the respondents indicated that the costs incurred due to the introduction of mandatory nutrition labeling would have a significant impact on the costs of the final product. The impact was felt most heavily by smaller companies with turnover under € 2 million with 62% of the companies considering it as a significant cost while in case of larger companies having turnover over € 50 million 44% of the companies considered it as a significant cost [4]. However, in case of India much higher percentage of the companies particularly in small sector may consider it as a significant cost. In US the Nutrition, Labeling and Education Act of 1990 (NLEA) required mandatory nutrition labeling for almost all packaged food and set strict regulations for health claims. The costs for NLEA over the period of 20 years were estimated as \$163 million for Government and \$1.4 billion to \$2.3 billion for the food industry [5]. As per estimates the total U.S. trade in processed food and beverages amounted to \$54.2 billion in 1995 [6]. By these estimates the cost of labeling is quite significant particularly when the companies are operating on low margins due to competitive pressure. Also it is obvious that per unit additional cost due to labeling would be higher for small companies in comparison to large companies due to economies of scale.

In most of the cases the food companies particularly those in the small sector companies purchase raw materials as grains, horticulture produce etc from the agriculture markets where the produce from different sources is pooled and auctioned. This implies that nutrient content of the raw material will vary from region to region depending on the climatic, soil, crop variety and seasonal factors. This would mean that analytical tests would have to be done for each batch of the products. At the same time there are also concerns amongst the industry players that nutritional parameters may undergo change during processing or storage of processed food which makes it further difficult to correctly determine the nutritional value.

As analyzed in the earlier section, provision of information to consumers and correction of externalities are the two major reasons for the mandatory labeling policy. The benefits of the labeling are manifold provided the consumer interprets the information in an effective manner. In this context there is a huge role of the public agencies to educate the consumers about the use of labels. Nutritional label would also presumably lead to health improvements as a result of change in diets by consumers. Reduced consumption of fat and cholesterol would result in reduced incidence of cancer and coronary heart disease (CHD) besides other problems as diabetes, arthritis and stroke. Increasing rate of obesity is another such health problem which may partly be attributed to poor choice of diet rich in fat content. The prevalence of obesity is off course more in developed countries like US and UK in comparison to India. In fact US had 36.5% male and 41.8% of the female population in the age group of 15-100 years estimated to be affected by obesity [7]. The same statistics for India is off course on a lower side with 1.1% and 1.4% of the male and female affected by the obesity respectively. However with the changing lifestyles and consumption pattern this figure will rise for India too. Notwithstanding the obesity statistics, empirical evidences have shown that the risk of death due to CHD is substantially higher among Indians. According to the World Health Organization (WHO) estimate, India lost US\$ 9 billion in national income from premature deaths due to heart disease, stroke and diabetes in 2005

and the cumulative loss for the periods 2006–2015 was projected to be US\$ 237 billion [8]. Any improvement in health status by having nutritional labeling policy would lead to increased productivity and thus ensure long term societal benefits.

Product reformulation is another benefit to consumers due to mandatory nutritional labeling policy. Food companies would prefer reformulating the product rather than losing sales due to disclosure of negative product characteristics. Thus even consumers who do not read the labels are benefited in the process. Ippolito and Mathios [9] found that health claims on cereal boxes helped change consumer behaviour and resulted in significant product innovation. In fact more healthful food resulting from reformulation may be the largest benefit of labeling [10]. The reformulation cost too would be an issue of concern for the small food companies and would therefore need technical and financial assistance from the Government. Notwithstanding the cost issues, mandatory nutrition labeling policy provides incentives to the companies excelling in higher quality characteristics of the product. In fact nutrient information could be used to create product differentiation and consumer assurance for the credence attributes of the product.

Conclusion

The Government intervention for nutritional labeling is aimed at achieving social goals as improved health status for the people. The other major objective is to streamline the country's regulatory environment with the international regulations under the purview of WTO agreements. The successful implementation of the regulation which maximizes the efficient functioning of the markets depends on a number of factors including clear guidelines, testing facilities and enforcement mechanism. The small sector which is the worse affected from such regulation may require technical as well as financial assistance from the Government and industry associations. Similarly detailed guidelines needs to be provided to the food companies along with the ongoing support to develop nutrition labels. Besides Government agencies must organize training and workshops for companies to provide practical hands on guidance on nutritional labeling. On the other side it is equally important to educate consumers about the use of labels through different awareness programmes.

The provisions for the nutritional labeling have been made under Prevention of Food Adulteration Act, 1954 (PFA), the act which ensures the safety of food for consumers. It is pertinent that the enforcement agencies are substantially strengthened so as to deal with the additional provisions of the act particularly when the number of products and food companies involved are in a large number. One can make an argument that the whole logic of enacting such provisions is flawed when food safety itself is a huge concern in the country. However, the challenges in implementation of the present provisions do not mean that the act is not strengthened to enhance social welfare. In fact the issue of food safety cannot be solely ensured by the enforcement agencies but through a series of measures including a large organized private sector investment which would improve the efficiency of the whole value chain. The demand for higher quality attributes for food products would also compel industry players to appropriately address the food safety and quality issues. In fact, many food companies have already started reformulating their existing products to reduce saturated fat, cholesterol, added sugar and sodium in line with global trends. Research studies have shown that consumers pay a price premium for the specific characteristics of the product. Therefore food companies must take advantage of this opportunity by developing differentiated food products. Globally there has been increased consumer awareness about the food safety, quality and nutrition content of the food products, which is translated into suitable regulations. To remain competitive it is imperative that the Indian food companies too adapt to this changing global scenario. In the context present mandatory nutrition

labeling provisions and proposed integrated food law in India would only help food companies to be competitive in the global markets.

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