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Research Article

LABELLING: ALARMING FACTS IN THE INDIAN FOOD INDUSTRY

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ABSTRACT

Food safety is a major concern nowadays, for making food choices. The aim of the study was to examine the food labels and their compliance with the Food labeling laws by Codex alimentarius. A total of 238 Ready to eat convenience food products from eight grocery outlets were market surveyed and information present on food labels was compared against Codex guidelines to check the compliance of food labeling laws. According to Codex Alimentarius all pre-packaged food should have following mandatory food label information on the products that are name, address, date, origin, ingredient, additives and health claim. It was concluded that in all the products, maximum products had the name visible (95.38%) with logo present (86.55%), on them.. RTEs were assessed for presence of nutrition facts *i.e.*, Mandatory/ optional/semioptional nutrients. according to Codex Alimentarius Standards

Keywords: *Food Label, Ready to eat foods, Nutrition label*

INTRODUCTION

Ready-to-Eat foods are those foods that are offered or exposed to sale without additional cooking or preparation.They are packaged on the premises and are being sold and are ready for consumption. Canned foods, convenience foods, fast foods, frozen foods, instant products, dried foods, preserved foods, etc. all come under Ready-to-Eat foods (Selvarajan 2012). In our modern fast-paced lives, less time is dedicated to the preparation of meals. Consequently, the consumption of ready-made meals, such as ready-to-heat pre-packaged dishes available at grocery stores and fast-food restaurant items, has increased (Monteiro, Levy, and Claro 2010). Major drivers of RTE products include (a) Rapid Urbanization, (b) Income and Consumption Growth, (c) Increase in Population of Working Women and (d) Convenience(APEDA 2016).

In many parts of the world, food companies, consumers, and governments are re-examining the provision of nutrition information on food labels. It is important that the nutrition information provided be appropriate and understandable to the consumer and that it impact food-choice behaviors. Potentially, food labeling represents a valuable tool to help consumers make informed decisions about their diet and lifestyle (Wills *et al*., 2009).The present study was conducted to assess the compliance by food industry, of food labeling regulations set by Codex Alimentarius.

MATERIALS AND METHODS

Present study was conducted in Jaipur city (Rajasthan). City was divided into four zones and two supermarkets from each zone were selected for the purpose of study. A total of 238 ready to eat food products were studied for the information given on their food label. The information on food label was tabulated and compared against the regulations set by Codex alimentarius which are international standards for food safety.

The information regarding the mandatory and semi optional nutrients was also assessed in accordance to the guide lines of Codex alimentarius.

RESULTS AND DISCUSSION

The information on food labels of the ready-to eat products was tabulated in terms of the information required as per Codex regulations.

Table 1: Food Label Details on Different Aspects as per Codex

Allergy Advice	57.98 (138)
Classes	19.33 (46)
Food Additives	47.9 (114)
Net Content	92.44 (220)
Address of manufacturers	100 (238)
Country of origin	92.44 (220)
Batch number	94.12 (224)
Date of marketing	24.37 (58)
Instructions for use	78.15 (186)
Instructions for storage	80.25 (191)
Barcode	93.7 (223)
Veg/Non-veg	92.02 (219)
Date of manufacturing	35.29 (84)
Date of packaging	74.79 (178)
Best before	79.41 (189)
Expiry Date	10.92 (26)
Nutrition Facts	83.61 (199)
Health claim	28.99 (69)
Nutrition claim	25.63 (61)
Logo	86.55 (206)
Visibility of the name of the product	95.38 (227)
Declarations	42.44 (101)

Table 1 reveals the details of various attributes of food label found on the labels of Ready –to-eat products. Only address of manufacturer was printed on all the labels of the food products (238). Approximately, 90-95% of the labels had information on veg/non-veg (92.02%), net content (92.44%), country of origin (92.44%), bar code (93.70%), batch number (94.12%) and visibility of the name of product was on 95.38% products. Fewer products had information on instructions of storage (80.25%), nutrition facts (83.61%) and logo (86.55%). Allergy advice was present on 57.98% products, food additives were declared on 47.90% RTE, declarations were given on 42.44% products, Date of manufacturing was printed on 35.29% products. Health claims were given on 28.99% RTE whereas nutrition claims were found on 25.63% RTE. Classes were present on 19.33% RTEs, date of marketing was informed on 24.37% RTEs. Only 10.92% products had information on expiry date.

Nutrition Facts on RTEs

The various aspects of nutrition label/ nutrition facts were classified as mandatory, semi-optional and optional. This categorisation was done on basis of regulations by Codex. Energy, protein, carbohydrates, total fat, saturated fat, sodium and total sugars were mandatory as per Codex. MUFA, PUFA, Cholesterol, Trans fat were semi-optional as they were required only when fatty acid profile was required to be given specially in vegetable oils and different types of fats. Information on fibre was also required if the product contained the same. Optional nutrients can vary from country to country depending on their public health issues.

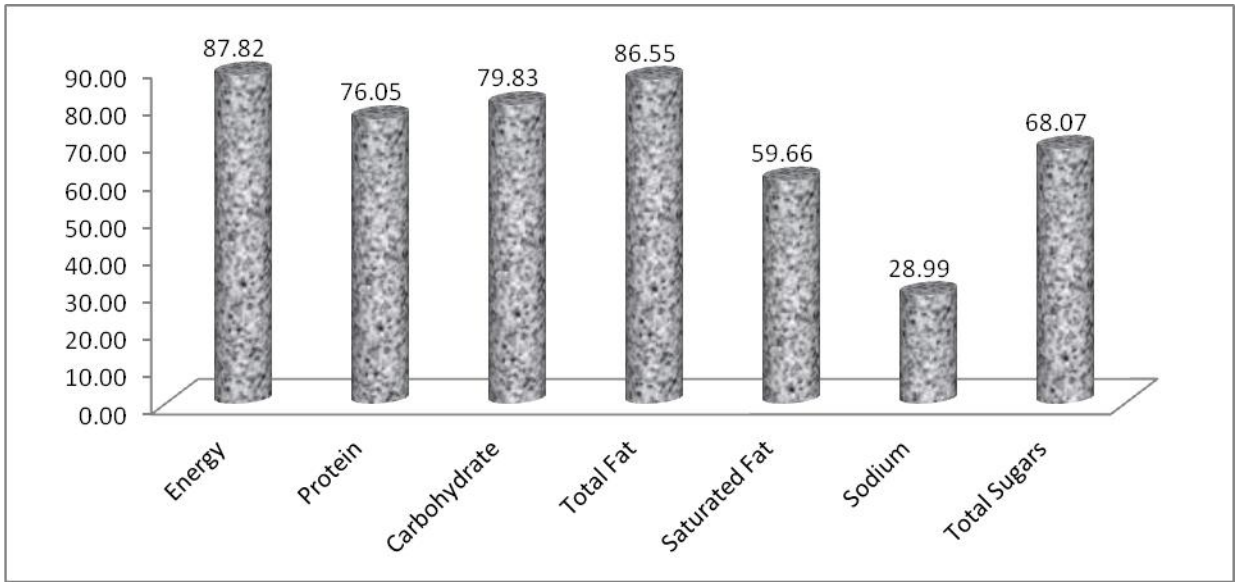

Figure 1: Mandatory Nutrition Facts on RTE

When the food labels of RTEs were assessed for presence of nutrition facts it was revealed that maximum proportion of RTE had information on energy (87.82%) closely followed by total fat (86.55%). Carbohydrates values were given on 79.83% RTE, followed by protein values on 76.05% RTE. Total sugars were given on 68.07% RTE. Saturated fat values were present on 59.66% RTE. Sodium was the nutrient least found on the labels despite being mandatory (28.99%) (Fig.1)

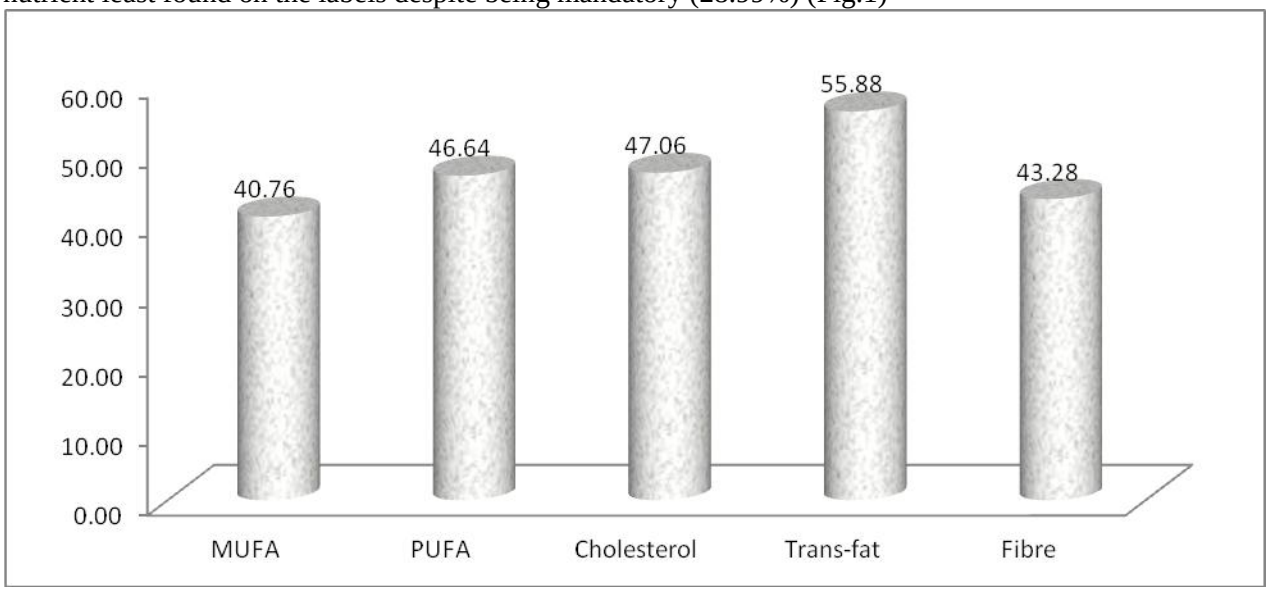

Figure 2: Semi-optional Nutrition Facts on RTE

The presence of semi-optional nutrition facts on RTE labels is being presented in the figure above. Trans-fats were the maximum reported nutrient (55.88%). Approximately, 47% RTE had values of PUFA and cholesterol. Fibre values were displayed on 43, 28% RTE label. MUFA was the least reported nutrient (40.76%). (Fig.2)

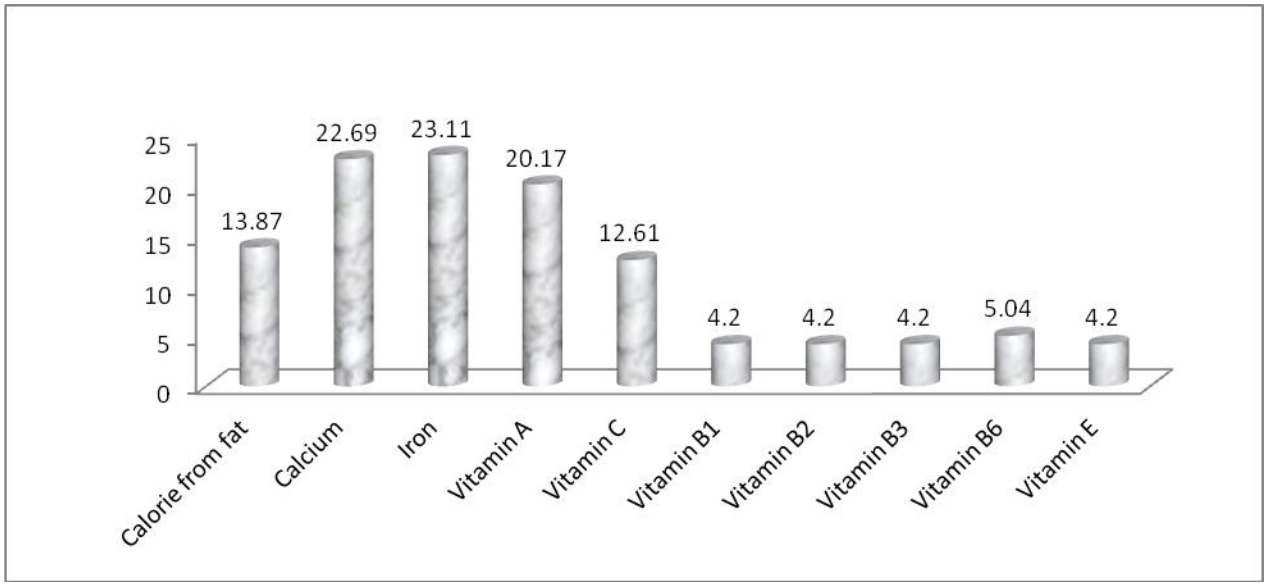

Figure 3: Optional Nutrition Facts on RTE

Figure 3 displays that optional nutrients were among the least reported nutrients on RTE labels. Approximately, 20% RTE had values of calcium, iron, vitamin A. About 13% RTE displayed information of calorie from fats and vitamin C. Approximately, 4-5% RTE had values of vitamin B1, B2, B3, B6 and E.

The results from this study reveal that the compliance of food and nutrition labelling by the industries is not appropriate. Even the information which is mandatory as per Codex guidelines have not been found on majority of labels such as: allergy advice, logo, expiry date, date of manufacturing. A similar study was carried out in Gujarat in 2013 and the study reported similar results. The aim of the study was to examine the food labels and their compliance with the Indian food regulations. The study was conducted in supermarkets (n=4) and grocery stores (n=5) of Vadodara. A total of 1,020 food products were purposively enlisted (only branded and labeled) to examine the food labels. The food products were clustered into 8 food groups and 29 food categories based on the function and ingredients. Results revealed that the most informative and easy to interpret Nutrition Facts Panel (NFP) [i.e. which gives nutrients as per 100g, per serving and percent Daily Value (%DV)] was displayed only in 8.4% of the products. Majority of the products (64.1%) displayed NFP as per 100g which does not have any reference values to compare unlike % DV NFP. Compliance for five mandatory nutrients as per FSSAI (i.e. energy, carbohydrates, sugar, protein and fat) and ingredients list was poor in products among various food categories. Vegetarian and non-vegetarian symbols were found in all the products based on the kind of ingredients. Thus, processed foods in Indian market fail to comply with the food regulations and therefore initiatives should be taken by the government and manufacturers to provide accurate and easy to understand information on food labels to enable consumers make healthy food choices(Singh, Iyer, and Chandorkar 2013). No other studies on similar pattern could be found on either national or international level.

Recommendations

- To create consumer awareness so that they demand for proper food and nutrition label.
- Stringent laws to ensure the compliance by industries.
- To help industries understand the significance of labelling as a tool for image building among consumers.

REFERENCES

APEDA (2016). E-APEX UPDATE Showcasing India Food Products. APEDA.

Monteiro, CA, RB Levy, and Rmetal Claro (2010). A New Classification of Foods Based on the Extent and Purpose of Their Processing. *Cad SaudePublica* **26** 2039–49.

Selvarajan, PRM (2012). Consumer Attitudes towards Ready-To-Eat Packed Food Items. *The Seventh International Research Conference on Management and Finance* 322–32.

Singh, M, U Iyer, and S Chandorkar (2013). Nutrition Labeling Compliance Of Branded Processed Packaged Foods With Indian Food Laws (FSSAI, 2011 REGULATIONS). *International Journal of Food and Nutritional Sciences* 2 (**4**) 14–19.

Wills, JM, DB Schimdt, DB Pillo-Blocka, and G Cairns (2009). Exploring Global Consumer Attitudes toward Nutrition Information on Food Labels. *Nutrition Reviews* 67 (**1**) S102-106.