

## Supermarket Shoppers Perceptions to Genetically Modified Foods in Trinidad and Tobago: Focus on Health Risks and Benefits

**Authors :** Safia Hasan Varachhia, Neela Badrie, Marsha Singh

**Abstract :** Genetic modification of food is an innovative technology that offers a host of benefits and advantages to consumers. Consumer attitudes towards GM food and GM technologies can be identified a major determinant in conditioning market force and encouraging policy makers and regulators to recognize the significance of consumer influence on the market. This study aimed to investigate and evaluate the extent of consumer awareness, knowledge, perception and acceptance of GM foods and its associated health risks and benefit in Trinidad and Tobago, West Indies. The specific objectives of this study were to (determine consumer awareness to GM foods, ascertain their perspectives on health and safety risks and ethical issues associated with GM foods and determine whether labeling of GM foods and ingredients will influence consumers' willingness to purchase GM foods. A survey comprising of a questionnaire consisting of 40 questions, both open-ended and close-ended was administered to 240 shoppers in small, medium and large-scale supermarkets throughout Trinidad between April-May, 2015 using convenience sampling. This survey investigated consumer awareness, knowledge, perception and acceptance of GM foods and its associated health risks/benefits. The data was analyzed using SPSS 19.0 and Minitab 16.0. One-way ANOVA investigated the effects categories of supermarkets and knowledge scores on shoppers' awareness, knowledge, perception and acceptance of GM foods. Linear Regression tested whether demographic variables (category of supermarket, age of consumer, level of were useful predictors of consumer's knowledge of GM foods). More than half of respondents (64.3%) were aware of GM foods and GM technologies, 28.3% of consumers indicated the presence of GM foods in local supermarkets and 47.1% claimed to be knowledgeable of GM foods. Furthermore, significant associations ( $P < 0.05$ ) were observed between demographic variables (age, income, and education), and consumer knowledge of GM foods. Also, significant differences ( $P < 0.05$ ) were observed between demographic variables (education, gender, and income) and consumer knowledge of GM foods. In addition, age, education, gender and income ( $P < 0.05$ ) were useful predictors of consumer knowledge of GM foods. There was a contradiction as whilst 35% of consumers considered GM foods safe for consumption, 70% of consumers were wary of the unknown health risks of GM foods. About two-thirds of respondents (67.5%) considered the creation of GM foods morally wrong and unethical. Regarding GM food labeling preferences, 88% of consumers preferred mandatory labeling of GM foods and 67% of consumers specified that any food product containing a trace of GM food ingredients required mandatory GM labeling. Also, despite the declaration of GM food ingredients on food labels and the reassurance of its safety for consumption by food safety and regulatory institutions, the majority of consumers (76.1%) still preferred conventionally produced foods over GM foods. The study revealed the need to inform shoppers of the presence of GM foods and technologies, present the scientific evidence as to the benefits and risks and the need for a policy on labeling so that informed choices could be taken.

**Keywords :** genetically modified foods, income, labeling consumer awareness, ingredients, morality and ethics, policy

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020