



AIC 2018: FUTURE OF MARKETING AND MANAGEMENT

## Consumers' Switching Preference from Conventional Food to Genetically Modified Food

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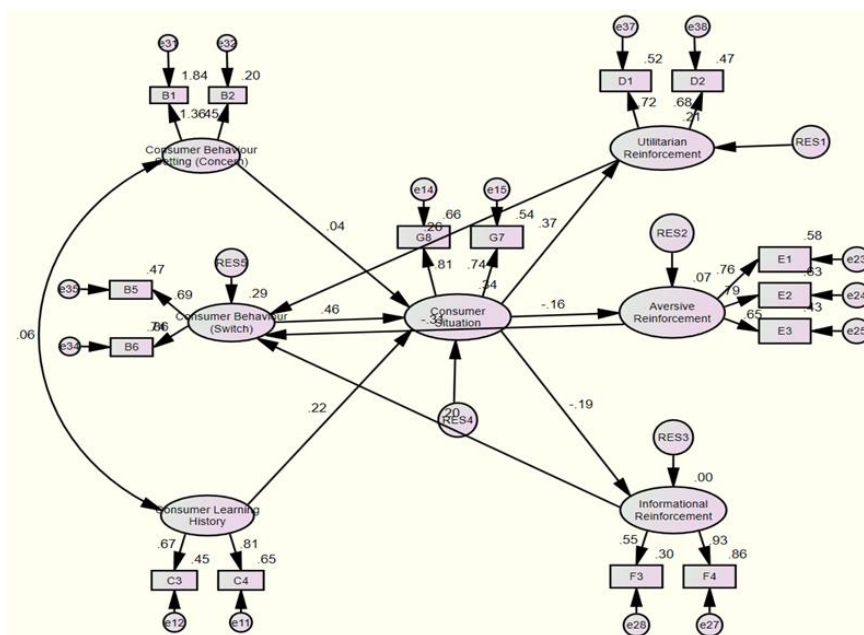




## Research Highlights

Today, the demand for quality food is increasing and genetically modified food has become part of the Asian diet. Based on the potential of GM food products and Malaysia’s plan to expand its biotechnology industry, the market for GMO will surge if Malaysian consumers are well-informed on the advantages of GM food products. Therefore, this study proposed nine hypothesis to understand Malaysia consumers’ preference for switch from conventional food to genetically modified food. The result indicates that utilitarian, aversive and informational reinforcement will increase consumers’ preference towards genetic modified food if they are aware that genetically modified food brings more advantages than disadvantages to human being. In addition, result shows that consumer who switch will have higher intention to recommend GMO food to others and willing to pay more for GMO food.

## Graphical Abstract





## Research Objectives

Genetically modified foods are foods that are produced using genetically modified organisms. These alterations are possible through genetic engineering techniques on the organisms' DNA (National Research Council, 2004). As Malaysian consumers are new towards GMO, the National Biotechnology Directorate is creating public awareness on biotechnology by arranging lectures at public forums, distributing pamphlets and promoting biotechnology through the media. Thus, this study focuses on:

General Objective:

To examine the factors which influence consumers' preference to switch from conventional food to genetic modified food.

Specific Objectives:

1. To determine how Malaysian consumers perceive the use of biotechnology to produce foods.
2. To investigate preference of consumers on the various benefits that biotechnology-derived foods may bring.

## Methodology

This study is using Behavioral Perspective Model (BPM) based on the three-term contingency from behavioral psychology aspects. The BPM framework defines these consequences due to behavior as utilitarian reinforcement, informational reinforcement and aversive consequences (Foxall, 2007). Data were collected from Malaysia consumers who stay in Klang Valley using personal administered questionnaires. Cluster sampling method was utilised where Klang Valley was divided into nine sub-clusters; which are Kuala Lumpur, Klang, Kajang, Subang Jaya, Petaling Jaya, Selayang, Shah Alam, Ampang Jaya, Putrajaya, and Sepang. Simple random sampling was then used to randomly select any three clusters. Sub-clusters like Kuala Lumpur, Petaling Jaya and Shah Alam were being selected. Convenient sampling method was then used in this study where Malaysia consumers who walked into the selected supermarkets in each sub-cluster will be interviewed. A total of 491 respondents were studied. Structural equation modeling (SEM) was used in this study to examine the interrelationships among the multiple variables such as consumer behavior





setting (Concern and Switch), consumer behavior, informational reinforcement, aversive reinforcement, utilitarian reinforcement and consumer learning history.

## Results

Due to the prospect of GM food products and Malaysia's expansion plan on biotechnology industry, the market for GMO exists if Malaysian consumers are appropriately educated on the benefits of GM food products from the perspective of environment, health, food safety, moral, ethical and religious implication. It is found that consumer learning history and switching behavior is effective in affecting Malaysian consumers' preference towards GMO food products. Reinforcement factors like utilitarian (nutritional value and food appeal), aversive (cancerous outcome, allergic problem and anti-nutrients) and informational (disease and impact on other organism) do affect consumer's preference and can be utilised by marketers in promoting GMO food. If consumer perceived GMO food have potential for improved nutritional qualities in bioengineered foods, consumers are willing to pay if they are being informed of GMO benefits such as improved nutrition (Lang, 2013 and Turker et. al., 2013). Amin et. al (2014) also stated consumers' perception of being able to distinguish whether the food is good or bad and whether they have control on the consumption are more relevant than the "content knowledge" of the food products.

## Findings

Consumer learning can be utilised by Malaysian firms in promoting the consumption of GMO food products. Firms can innovate through the establishment of positive GMO food tagline to generate a favourable consumer mindset towards GMO food products. Themes that corporate firms can apply on its taglines are natural resource scarcity and food security. In addition, medical practitioners can provide optimistic word-of-mouth recommendation on the advantages of GMO food products. Logo or symbol for GMO can be established to provide proper distinctiveness for the GMO food products.





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