

Mediating Effect of Halal Logo on Purchase Intention the Food Items in Pakistan: A Causal Mediation Analysis by Using R Language

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Abstract

Halal logo has created more awareness among consumers because they check halal logo or halal certificate if they see different manufacturer country or if the product is imported from foreign countries. Demand for halal foods are increasing among Muslims and non-Muslims due to its purity. Purpose of the study is to examine the role of halal logo as mediator between sales promotion and intention to purchase the food items in Pakistan. Primary data was collected with the help of questionnaire with Likert scale consisted on 5 points. Sample size is 163 students from Lahore based universities. R language is used for causal mediating analysis for measuring the relationships between sales promotion (independent variable), halal logo (mediator variable) and purchase intention (dependent variables). After run R-mediation program for simulated data with $\rho = 0$, a significant indirect effect of halal logo on the relationship between sales promotion and purchase intention of food items has been found. Halal logo has a significant mediating effect on the relationship.

Keywords: Halal logo, sales promotion, purchase intention, R language

Introduction

Religions have more significant impact on consumer choice for food because each religion requires his followers to follow certain rules and laws¹. Islam as a religion has significant influence on different aspects of Muslims to follow the specific laws known as Shari'ah. The whole supply chain of halal foods should be halal certified and follow Shari'ah laws². In terms of meat Muslims can't consume food like pork, blood, meats of animal that died other than proper

slaughtering. It has been noticed that demand for halal foods are increasing among Muslims and non-Muslims due to its purity³.

Concept of halal

According to Boediman⁴, halal is Arabic word which is used as permitted or lawful and haram is antonym of halal which is used for unlawful or forbidden. The basis of haram and halal derived from the Holy Qur'an and here are some verses for the references such as "Rather, he forbade the slaughter of the dead animals, blood, meat of swine, and that upon which name of someone except Allah has been taken⁵" and in other verse, O people! Eat halal and pure things from the earth⁶.

Boom of halal industry

Now getting awareness about halal food and its daily usage has become lifestyle and culture for the Muslims⁷. Halal industry has three main sectors such as; Non-food, food and services. Food sector includes all types of food whereas non-food sector comprise of personal care products, cosmetics, leather and pharmaceuticals products. The service sector includes banking, tourism and hospitality, logistic and marketing⁸. It has been estimated that in 2025, Muslims population will be increased 35%⁹. Highest numbers of Muslims are living in Asia region that is why demand for halal products is increasing in every sector.

Purpose and Significance

Purpose of the whole study is to examine the role of halal logo as mediator between sales promotion and intention to purchase the food items in Pakistan. Significance of the study is that Muslim population is growing very rapid pace and Pakistan, which is a Muslim country, where people should know what they are purchasing and consuming or that product is lawful or permitted in their religion or not. Another aspect for the significance is that when demand for halal food will increase then pressure will go on companies to use more pure and halal ingredients in food processing.

Literature Review

Hiding unfavorable product information from customers, making false promises and manipulating the customers are all against the spirit of Islam¹⁰. According to Hasim and Hamzah¹¹, Halal marketing strategy should be incorporated to develop any creating, communicating and delivering Islamic values to customers. Muslims around the world are becoming more consciousness in Halalness in food, non-food and service sector¹² that is why companies are using Halal logo to earn trust from the customers and use this technique in branding and marketing strategy¹³. People are becoming more Halal-conscious and they are in the seek for that products that satisfy their needs with peace of mind¹⁴. According to Ambali, Raufu & Naqiyuddin¹⁵, the Halal logo has created more awareness among

Muslim consumers and they check Halal logo or certificate if they see different manufacturer country or if the product is imported from foreign countries. It has been observed that many researchers¹⁶¹⁷¹⁸¹⁹ have taken halal awareness/halal logo/halal image/halal certificate as mediator to measure the consumer attitude towards products/services and market performance.

Fam et al.²⁰ found that country, education level and income significantly influence consumer attitudes towards sales promotion. According to Rahmawati & Nilowardono²¹, sales promotion is a marketing communication that aims to attract, attack competitors' promotional activities and increase impulse purchases as a whole. Vakeel et al.²² found that using flash sales promotion strategy, retailers offer deep discounts for a limited time period. Halal certification involves not only obey strict cleanliness and quality control but also it's a religious commitment²³. Halal certificate is a document issued by an approved Islamic association certifying that the products are according to Shari'ah and Muslims can use it. Halal certification is a reliable and authoritative document to support producers' claims that their products are Halal. According to Aziz & Chok²⁴, Muslim has a religious obligation to check the Halal certification for the food which they are going to consume. Halal certification refers to the official recognition of slaughtering, cleaning, preparation and handling by the concerned body. For Halal certified food the manufacturer must acquire the halal certificate as evidence that the products which they are offering lawful according to Holy Qur'an²⁵.

Theoretical Framework

With the help of literature review, researcher has drawn a theoretical framework for this study which is given below;

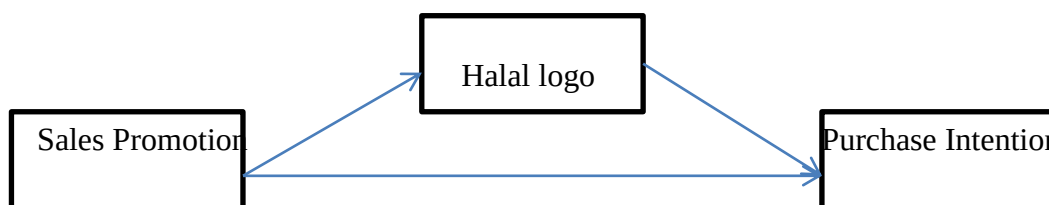


Fig. 1 Theoretical Framework

Sales promotion is an independent variable whereas purchase intention is a dependent variable and halal logo is acts as mediating variable in this framework. Many researchers have selected Halal as mediator and according to Sunaryo & Sudiro²⁶, halal label/statement/certificate indicates that products provide assurance to consumers that product' ingredients and process is according to Shari'ah (Islamic laws) compliance that is why researcher has taken halal logo as mediator variable so the hypothesis of this study is;

Hypothesis: The effect of sales promotion on purchase intention is significantly mediated by halal logo.

Theory of planned behavior as suggested by Ajzen²⁷ has been used in this study to support the relationship between halal logo and intention to purchase by consumers. Theory of planned behavior has been widely used in food-related research studies^{28,29}.

Research Methodology

Self-administered questionnaires were conveniently distributed among university students from Lahore, Pakistan. Questionnaire having 5 point Likert scale such as;

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

is used for data collection. Sample size is 163 which is measured with the help of Krejcie & Morgan³⁰ formula that is $\{s = X^2NP(1-P) / d^2(N-1) + X^2P(1-P)\}$. Researcher has used R language (3.6.0 version) for conducting statistical analysis and their interpretations to examine the role of mediator in this study. According to Ihaka & Gentleman³¹, who are the developers of R language, said that R is open source language for scientific and statistically computing and visualization of data.

Data Analysis and Result

Researcher used causal mediation analysis in R language because Imai et. Al.³² found that causal mediation analysis is widely used across many disciplines to investigate possible causal mechanisms that allow researchers to explore many causal pathways. Researcher used the R Mediation package for estimate the confidence limits as suggested by Tofighi & MacKinnon³³. The first part of Table 5.1 shows the R code used and then estimates of the causal mediation analysis with nonparametric bootstrap confidence intervals with the percentile method.

Table 5.1

R-mediation program for simulated data with $\rho = 0$

```
> mmodel <- lm(Halal_Logo ~ Sales_Promotion, data = dataset)
> ymodel <- lm(Purchase_Intention ~ Halal_Logo + Sales_Promotion, data = dataset)
> medtest <- mediate(mmodel, ymodel, treat = "Sales_Promotion", mediator = "Halal_Logo", boot = TRUE, boot.ci.type = "perc", data = dataset)
> summary(medtest)
```

Causal Mediation Analysis

Nonparametric Bootstrap Confidence Intervals with the Percentile Method

	Estimate	95% CI Lower	95% CI
Upper			
p-value			
ACME	0.5467	0.3893	0.71
0.000000000000000002			
ADE	-0.0184	-0.1095	0.08
0.67			
Total Effect	0.5283	0.3798	0.67
0.000000000000000002			
Prop. Mediated	1.0349	0.8710	1.23
0.000000000000000002			
Sample Size: 163			

Table 5.1 shows the "Estimate", an average indirect coefficient of the bootstrap samples. The indirect effect is labeled as ACME (Average Causal Mediation Effect) and the direct effect is labeled as ADE (Average Direct Effect). The total effect is the sum of ACME (Indirect Effect) and ADE (Direct Effect). We found a significant indirect effect of halal logo on the relationship between sales promotion and purchase intention of food items (ACME = 0.5467, $p = 0 < 0.05$) and a mediated proportion of 1.0349 ($p = 0 < 0.05$), so the presence of a mediating effect was significantly found.

Conclusion and Recommendations

Conclusion of the whole research paper is that halal logo is a mediating variable which have a significant effect in the relationship between sales promotion and purchase intention. Purchase intention of customers will be increase on that product which has a halal logo on packaging regardless whether it is on sales promotion or not. So it is highly recommended for the companies to use halal ingredients in the food processing to cater large volume of customers.

Further research and limitations

Further research can be done on other halal construct, such as halal awareness, halal certification etc. This research study has some limitations such as sample size is small and focus was on one city. Researchers can increase its sample size and cater other regions for further research. Furthermore this is a quantitate study so some researchers can do qualitative research on that topic.

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