

# The Influence of Nutritional Information on Fast Food Buyers Behavior: From Pandemic Challenges to Endemic Adaptations

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## Abstract

Consumers around the world are adjusting to the next normal and due to the pandemic, there is significant variance in consumer sentiment and buying behavior. There is a renewed sense of caution due to COVID, the nation-wide lockdown made people indulge in panic buying of essentials and hygiene categories. Indian Consumers consistently report higher optimism (Mc Kinsey & Company, 2020) as the cases of COVID-19 adapt to increasing trend consumers resort to new normal of buying and changed consumption patterns. The changes are witnessing in areas, namely cashless transactions, online shopping, virtual learning, growing concerns to personal wellness and fitness aids and similar likewise (Gupta Surbhi, Indian Express, 2020). The shift to new buying categories and proliferation of different customer needs has changed the context of consumer behaviour predictions.

Shift in consumer dietary behavior during the COVID pandemic has been researched in studies of (Mason et al, 2020; Sahin & Gul, 2022). The pandemic has given a big push to food label reading behaviour among consumers. People are convinced with the fact that habit of reading nutritive content in food intake is the best tool to make healthy food choice and lead healthy lifestyle Sahin & Gul (2022). FSSAI is strongly supported the move with mandating the menu labelling in fast food joints. This encourages the authors to investigate the influence of nutritional information in fast food chains on buyers behaviour during the pandemic to endemic phase. The study was conducted with 390 sample size of Jaipur respondents. Influence of nutritional information on buying behaviour was assessed through online questionnaires. It was found significant influence of nutritional information on fast food buying behaviour.

**Keywords:** FSSAI, Nutrition, Buying Behaviour, Health-Conscious.

## Introduction

The uprise trend in development of Indian fast-food industry is driven by variety of reasons, namely significant headcount of millennials, prevalence of women in working populace, nuclear families, changing eating behaviour, penetration of more fast-food joints. On the other side, take away counters are providing people with the convenience as they don't need to take the time to get out of the car. Quick service is another important consideration which cause rise of fast-food chains. Evidenced by Kansara Darshini CARE Ratings 2019, the growth of fast-food sector is projected to cross Rs. 5.5 trillion by 2022.

McDonald's product offerings have evolved over the years alongside the tastes of their customers, thanks in part to some observant and innovative

franchisees. A few examples of products that were introduced after being developed by McDonald's franchisees or owner/operators include Filet-O-Fish, the Big Mac, apple pie, egg McMuffins and the McFlurry. These menu innovations (along with items developed in their test kitchen) have allowed McDonald's to offer products for every meal, allowing for greater profitability. Great care is taken not to affect the consumer experience when a new item is introduced.

Consumers are willing to be informed of calorie count and nutritional information as a pre-requisite to product choice. In response to recent norms of FSSAI Labelling and Display Regulation and rising awareness about healthy eating, diversion of people towards nutritional diets, various fast-food chains like McDonald's, Pizza Hut and Dominos have introduced nutritional meals in their menus. Due to

pandemic people are now more aware on health issues. Pizza Hut is known for its pizzas and garlic breads and it has displayed information regarding calorie content per meal and about its ingredients viz. Presence of dietary fiber, carbohydrates, fats, quantity of added sugar, trans fats, cholesterol, sodium content etc. Mc Donald's burgers have always been enticing for people. Information is displayed in its physical store as well as on its official website providing information about serve size, energy obtained in kilo calories, total fats (saturated and unsaturated), sodium content, protein content etc.

Display of nutrition information in menu card, display boards, food wrappers and containers can be the ways to encourage healthy product choices and influence food purchase decisions. Additionally, nutrition labeling plays a key role in addressing health and wellness concerns. In Indian context, menu labelling legislation is still in planning stature which takes more years to implement in apt manner as FSSAI has mandated menu labelling for restaurants in 2019. Food safety cannot be the responsibility of regulators alone, consumers must also be aware to form ecosystem of trust and quality. In the current study, buyers' behaviour towards nutritional information is studied keeping the phase of pandemic to endemic in consideration.

The transformation which reflects from pandemic to endemic is highly visible in choice of food items. Consumers are more inclined to understand the nutritive content of food intake which can bring a shift in consumption pattern. (Sobaih, A. E. E., & Abdelaziz, A. S. (2022).

The study aims to identify the awareness among sample respondents regarding nutritional products available in fast food chains. In line with this, the influence of nutritional information on buyers' behaviour is investigated with the application of statistical tools.

## Literature Review

The culture of fast food is dated back to decades although the choice of food item is consistently change as per the taste and trend. The past studies showed different reasons to patronage fast food outlet, like convenience, socialization, quality of food, service, ambience, food variety, taste, offers and discounts (Abdullah N.N. et al., 2017; Ratna

Anmol, 2017; Deivanai P., 2016; Keshari and Mishra, 2016; Prabhavathi et al., 2014; Ali and Nath 2013; Rauf and Butt 2012; Anand Ritu, 2011; Islam and Ullah, 2010; Goyal and Singh, 2007. With the growing percentage of young demographics, the trend of major footfall in fast food eateries are seen in college goers, university students because of easy accessibility to fast food chains, promotional offers, to celebrate special occasions (Abdullah N.N. et al., 2017; Keshari & Mishra, 2016; Srivastava R.K., 2015; Baig & Sayeed 2012; Goyal and Singh 2007; Islam and Ullah, 2010). Availability of healthier options in fast food outlets include salad, chicken, sugar free beverages and reduced sugar desserts. In contrast to supermarkets and grocery stores, fast food outlets scored high on variety of healthier breakfast, lunch, dinner and side dishes. The study found that instead of regular availability of healthier menu items the awareness among target segment is less Creel et al. (2008).

The intervention of menu labelling legislation on fast food business is highly witnessed through accessibility of nutritional information in the stores. The implication of legislation mandate for fast food outlets to post calorie and nutrition information in menu boards, display nutritive facts on product package which help consumers to make healthy and informed food choices (Wellard et al. (2015); Radwan et al. (2017); White et al. (2016). Display of nutritional information at point-of-purchase, posting calorie information on menu boards, usage of color coded signals for simplifying nutritional information are effective in influencing fast food purchase decisions specifically healthy food choices and purchase intentions Montandon and Colli (2016); Tandon et al. (2011); Chand et al. (2011); Dumanovsky et al. (2010); Burton et al. (2009) Sobaih & Abdelaziz (2022). Fast food restaurants must display nutritional information, namely energy and fat content in their display boards and on product package. This help customers to make informed food choices which is nutritious and balanced for healthy lifestyle (Mohiuddin & Nasirullah, 2020).

The studies of Wootan et al. (2006); Mazariegos et al. (2016) examined the different dimensions. Studies found that availability of nutrition information on the back of tray liners are not readily accessible which create difficulties in knowing the



portion intake and selecting the healthy diet. Despite of widespread availability of calorie information significant percent of respondents in study of Bennett et al. (2013) had limited awareness about calorie intake of meals and resultant nutrient meals.

Few studies focused on children eating habits and resultant food choices examined inclusion of food and nutrition curriculum and nutrition information app as effective ways to update consumers and encourage healthy food choices. Here, educational institutions must advocate children about harmful food items which contain more fat, salt, sugar Young M. et al. (2019); Rathi et al. (2017); Samoggia, A. & Riedel, B. (2019); Mohiuddin A. (2020).

Nutrition labelling through traffic light system, different color codes help customers to choose healthy products and limit calorie intake (Cecchini, M., & Warin, L. (2016); Bopape et al.(2021)

Askovic & Kirchengast (2012) studied gender differences in respect of nutritional habits, eating behaviour and body weight. It was found that boys be more fond of fast food in comparison to girls who prefer healthy diet and fruits and vegetables. Such gender differences in food choices are mainly due to gender specific energy demands. Additionally, the authors cited that girls are more updated about nutritional diet and keen to meet nutritional recommendations as posted by regulatory bodies.

The pandemic has induced food label reading behaviour in consumers. This make them convinced that nutrition in meals is possible through healthy food choice and reading food labels (Sahin & Gul, 2022).

The wave of pandemic and resultant lockdown has induced transformations in eating behaviour of consumers. They are more conscious to consume nutritional food, which include additional fruits and veggies in the diet. However, to stay healthy consumers preference for fresh home-cooked food is high in comparison to fast food Ahmad, S. R. (2021).

The phase from pandemic to endemic seen increase in trend of cooking at home. During the pandemic, fast-food eateries were closed because of government restrictions. This led to decline in dine-out eating habits. Study of Wachyuni, S. S., & Wiweka, K. (2020) investigated increase in awareness of health, quality and safety of food among respondents. Consumers were more conscious about content of their daily food intake. Thus, majority of sample respondents agreed with the notion that COVID has transformed their eating behaviour to be healthier.

**Research Methodology**

The present study is exploratory and descriptive in nature as it explores the impact of nutrition information of fast food chains on customer buying behaviour. For this study the data has been collected from respondents 18 years & above from the city of Jaipur. Data was collected through snowball sampling technique. The sample size of the study was determined as 500 out of which 110 respondents were found to be inappropriate for the study due to incomplete, incorrect, and misleading information. Only 390 respondents were considered fit for further analysis. The data was collected using a questionnaire, which was designed using various literature available.

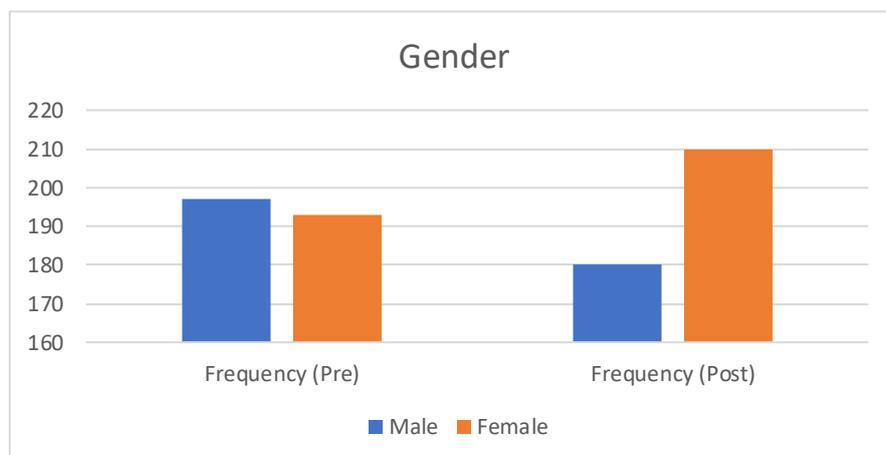
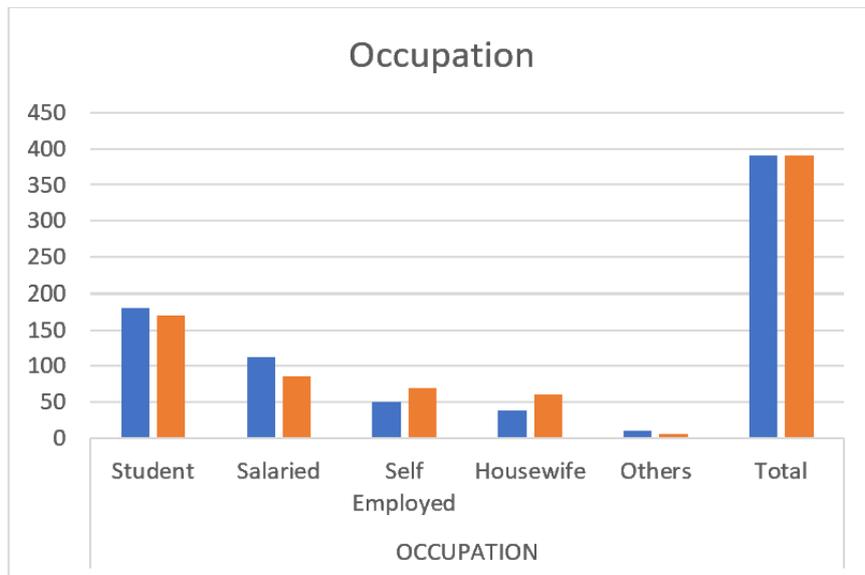
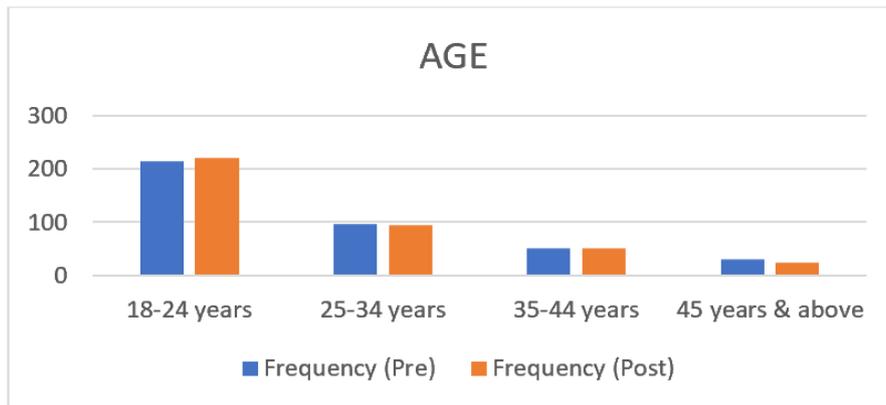
**Table 1: Descriptive Statistics**

Descriptive Statistics			
	Mean	Std. Deviation	N
Buying Behaviour	2.5267	.57368	390
Nutritional Information	2.2051	.37290	390

Table 1 presents the descriptive statistics of the collected data. The study found that the mean buying behaviour score of the respondents was 2.5267, while the mean nutritional information score was 2.205. The standard deviation is a statistical measure

used to assess the variability or dispersion of a set of data points. The study found that the standard deviation for buying behaviour was .57368, while the standard deviation for nutritional information was .37290.

The demographic description of sample populace is presented as below:





**Objectives**

1. To measure the awareness regarding nutritional information of fast-food.
2. To identify the impact of nutritional information in fast food chains on buying behaviour.

**Hypothesis**

H<sub>01</sub>: There is no impact of Nutritional information in fast food chains on buying behaviour.

H<sub>A1</sub>: There is impact of Nutritional information in fast food chains on impact buying behaviour.

To examine significant impact of nutritional information of fast food on buying behaviour,

Correlation and Linear Regression Analysis are done. The extracted results are shown below.

**Results**

**Regression Analysis of Nutritional Information and Fast-Food Buying Behaviour**

The "R" column in table 3 represents coefficient of multiple correlation as 'R' value. Here 'R' is consider as predictor of the dependent variable. However, "R Square" represents R<sup>2</sup> value. This value signifies percentage of variance in the dependent variable which can be explained by the independent variable.

**Table 2: Regression Analysis Results**

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.512	.262	.258		.34253	1.818

In the Model Summary, R Square is 0.262 which means that Nutritional Information explain 26.2% of the variability with significant effect on Fast Food Buying Behaviour. The value of d is 1.818 which is

Durbin-Watson value. As the d value falls between 1.5 < d < 2.5. Therefore, it is assumed that there is no first order linear autocorrelation in the linear regression data.

**Table 3: ANOVA Goodness of Fit (GOF)**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.064	1	3.064	7.194	.007
	Residual	32.896	388	.330		
	Total	34.960	389			

The table 4 shows the F-ratio in ANOVA and the overall statistic fit of regression model. It shows that nutrition value information statistically as well

significantly predict the fast food buying behaviour. F value as (sig. value) is 0.007 which is less than 0.05. Thus, this shows overall fit of regression model for the dataset. Also, F-test is highly



significant which indicates that regression model predicts significant proportion of variance in buying behaviour.

**Table 4: Coefficients**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.462	.150		16.426	.000
	Nutritional Information	.534	.077	.512	11.441	.007

The table 5 indicates value of Unstandardized coefficient which portrays the amount by which dependent variable changes if there is change in independent variable. It shows that the Nutritional Information is significant predictor as sig. value is 0.00 (which is <0.05). Thus, this states the rejection of null hypothesis. In other words, it can conclude that nutrition information in fast food chains significantly impacts the buying behaviour.

**Conclusion**

Our present research showed the impact of nutritional information on fast food buying behaviour during the transition from pandemic to endemic phase. The results shown that the phase of pandemic drove people to eat more healthy and balanced meals to enable healthy lifestyle and strong immune system (Chowdhury et al., 2020). However, few past research stated that COVID-19 induced unhealthy food choices and dietary behaviour (Souza et al. 2022). Indeed, the choice of healthy meals and healthy lifestyle is similar in endemic as well. Menu labelling is one crucial tool to encourage healthy food practices and influence customers to limit their consumption in terms of energy, fat, salt, sugar, cholesterol and sodium of unhealthy food and meals. In accordance to sub regulation 2.4.6 issued by FSSAI, it has been mandated for all fast-food restaurants also known as quick service restaurants (QSRs) to display caloric and nutrition information for all food items with effect from January 2022. To instance, detailed nutritional information for masala panner tikka wrap must be inclusive of information about ingredients, quantity served, energy, carbohydrate, protein, fat etc.

The demographics of 18-24 years consumers are regular goers to fast food chains which is similar during the pandemic and endemic. The frequency of fast-food consumption is not specific to week, month and any occasion. Rather, it decides based on mood, interest, and situation. The statistical analysis depicts significant influence of nutritional information on buying behaviour. Although, during the pandemic and till the endemic period there found no visible differences in buying behaviour.

The study stated positive awareness of nutritional information and its resultant impact on healthy food choices. Thus, McDonald’s, Pizza Hut and Dominos outlets need to be responsive to recent notification of FSSAI regarding menu labelling. This do encourage significant number of customers to be responsive to nutritive content of food intake and make healthy food choices.

**Managerial Implications**

The pandemic has spread fear among consumers in visiting brick and mortar stores. The findings shown that not large number of consumers prefer to visit fast food outlet during the pandemic. However, in endemic consumers cited change and socialization as basic reasons to visit outlets. Thus, marketers need to focus more on strategies like innovation in menu, creative ambience, discount offers to facilitate memorable experiences to customers. The awareness of nutritional diet available in fast food chains is at high level still the adoption of healthy food is in nascent stage.

**Scope for Future Work**

The current research pertains to selected fast food outlets limited to Jaipur city. More comprehensive studies can be undertaken expanding the

geographical base and inclusion of more food chains. Even comparative studies can be taken further to determine the patronage behaviour of domestic fast food chains and international chains.

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