

# Factors Affecting Consumers' Purchase Behaviour for Health and Wellness Food Products in an Emerging Market

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## Abstract

This article aims at identifying the factors affecting the buying behaviour of the consumers for health and wellness food products in India, based on a structured primary survey of 218 respondents in the city of Lucknow, India, using the stratified random sampling technique. The survey data has been analysed using appropriate statistical tools such as descriptive statistics, factor analysis and regression analysis. The retail value of health and wellness foods in India has shown a significant annual growth of 14.3 per cent during the last decade. Consumers' preference for health and wellness food product attributes indicate that quality and health benefits are perceived as very important and extremely important by more than 75 per cent of the respondents. Better-for-you (BFY) food products comprise the major share of 32 per cent of the health and wellness food basket of the consumer. Regression results clearly indicate that socio-demographic profile of the consumers, product attributes, market attributes and psychological factors are more likely to influence the consumers' health and wellness food purchase decision. This study provides practical insights for the companies involved in producing and marketing health and wellness food products in terms of the increasing consumer demand for healthier food choices.

## Keywords

Health and wellness food, consumer behaviour, purchase decision, functional food, organic food, emerging market, India

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## Introduction

Consumer food purchase behaviour is changing significantly across the world and consumers are now getting more and more attracted towards good taste, convenience and health enhancing properties of food (Ali, Alam, & Ali, 2015; Bruhn, 2008; da Silva & Conti-Silva, 2016; Hansen, 2005; Lessa, Zulueta, Esteve, & Frigola, 2017; Shamal & Mohan, 2017). The consumers are now becoming more conscious of the relationship between diet and health and hence are becoming more motivated to take care of their health by way of consuming healthier food. Increased health consciousness and changes in lifestyle, coupled with awareness about the benefits associated with health and wellness food have led to significant changes in consumer behaviour towards healthy food consumption in the recent years (Crofton, Markey, & Scannell, 2013; Hansen, 2002; Lagerkvist, Okello, Muoki, Heck, & Prain, 2016; Quah & Tan, 2009). Besides, various factors such as rise in disposable income, change in family structure, urbanization and increase in consumer awareness have also affected the health and wellness food consumption (Yun & Pysarchik, 2010).

Historically, Indian consumers have preferred fresh and unprocessed food over processed and packaged food; however, the recent changes in consumption patterns, particularly in the middle- and high-income groups, show ample opportunity for strengthening processed and packaged food segments in the country (Chengappa et al., 2005; Deininger & Sur, 2007; Ling, Pysarchik, & Choo, 2004). It is argued that the perceived quality of 'healthiness' in a food product has now become the consumers' main motivation in their food choices (Bech-Larsen & Grunert, 2003; Sondhi & Vani, 2007). Growing at an annual compound growth rate of about 7 per cent during the period 2005–2015, the global health and wellness food market has been estimated at US\$ 733 billion. India also has a huge market for health and wellness food products with a market size of ₹669.4 billion in 2015, which has significantly increased from ₹117.5 billion in 2002 (Euromonitor International, 2015). The retail value of health and wellness food in India has grown at an annual compound growth rate of 14.3 per cent during 2002–2015 and is likely to grow at 12.9 per cent per annum during 2015–2020.

Health and wellness food products are usually associated with distinct health benefits over other food products available in the market. Health and wellness food is 'a food and beverage' that imparts a physiological benefit that enhances overall health, helps prevent or treat a disease/condition, or improves physical or mental performance via an added functional ingredient or processing modification (Divine & Lepisto, 2005; Green, 2006; McMahon, Williams, & Tapsell, 2010; Sloan, 2000). According to Euromonitor International, health and wellness food products are broadly categorized into five groups: Better-for-You (BFY), Food Intolerance (FI), Functional/Fortified Food (FF), Naturally Healthy (NH) and Organic Food (OF). Better-for-You food category includes all the packaged food and beverages where the amount of substances considered less healthy are removed or reduced during production. Food Intolerance category includes gluten-free, lactose-free and diabetic food products. Fortified/Functional products can be defined as those food items to which healthy ingredients have been added. Naturally Healthy category includes food and beverages on the basis of naturally containing a substance that improves health and well-being beyond the product's pure calorific value. Further, Organic Foods is a category that includes food produced through a system of farming that maintains and replenishes soil fertility without the use of toxic and persistent pesticides and fertilisers. With the increasing significance of health and wellness food products, the consumers are also getting interested in learning more about food and beverages that may provide additional health benefits and help in reduction of food-borne and lifestyle diseases.

There has been increasing incidences of food-borne diseases, coronary heart diseases, diabetes and problems of obesity in the recent years, and consequently, the perspective of the consumers about food

intake is changing towards healthy diet. The health-conscious consumers in India are now searching and opting for food products that offer additional health benefits and added nutrients, such as proteins, vitamins, minerals and even omega-3, which offer significant health benefits over the other regular food products, such as naturally healthy beverages like green tea and 100 per cent juices instead of carbonates (Hudson, 2012). The Indian consumers are no longer interested in health and wellness food only for the sole purpose of being disease-free, but they also associate with these food products with increased confidence, freedom from stress and a healthier and more attractive appearance (Jha & Sharma, 2015).

This research article is structured in nine sections. The next section deals with the literature review, which is followed by the objective and rationale of the study. A conceptual research framework and the research methodology are discussed in the fifth and sixth sections. The result of the analysis and discussion is given in the seventh section of the article followed by the conclusion and managerial implications. Limitations and future research directions are discussed in the last section of this article.

## Literature Review

Consumer behaviour, being an aspect of human behaviour in general, is thus studied by many social sciences such as economics, psychology, sociology, anthropology or management (Galalae & Voicu, 2013; Nicholson & Xiao, 2011; Wells, 2014). McMahon et al. (2010) reviewed how the meaning of wellness and well-being is perceived and understood across various disciplines and its effects on the consumers' choices for healthy foods. There are several research evidences on understanding the consumers' behaviour in the form of purchase intention and attitude towards healthy food products (Chung, Stoel, Xu, & Ren, 2012; Granzin, Olsen, & Painter, 1998; Krystallis, Fotopoulos, & Zotos, 2006; Quah & Tan, 2009). Most of these studies have focused on functional foods and organic food products, since these are the two most common and popular types of health and wellness food categories. Chakrabarti and Baisya (2009) investigated consumer purchase behaviour for organic foods by constructing a model based on variables like consumer innovativeness, the related perceived risk and personal influence and the demographic characteristics and time of adoption.

Badrie, Reid-Foster, Benny-Olliviera, and Roberts (2007) analysed the perception, opinions, choices and motives of the exercise enthusiasts in West Indies, regarding improvement of health through the consumption of functional foods, using primary survey of 120 respondents through structured questionnaire. Annunziata and Vecchio (2011) analysed consumer attitudes and the factors that influences the consumers' attitudes towards functional foods in Italy, based on a primary survey of 400 households, which revealed three groups of consumers on the basis of demographic characteristics with different confidence levels, satisfaction and health perception of functional food.

Chase et al. (2009) studied the purchase behaviour of the Canadian consumers with regard to innovative functional food products, based on socio-demographic profiles of the consumers. Kareklas, Carlson, and Muehling (2014) provided a theoretical assessment on the factors influencing consumer purchase behaviour for organic food products. Kapoor and Munjal (2017) segmented Indian Women consumers using cluster analysis based on their health orientation and perception towards functional foods. Azam, Othman, Musa, Fatah, and Awal (2012) analysed the factors affecting purchase intentions of the consumers for organic food products using primary consumer survey of 250 respondents in Malaysia. Chen and Lobo (2012) investigated the factors affecting consumers' organic food purchase intentions in urban China by developing a conceptual model based on Theory of Planned Behaviour, Consumer Decision-Making Process and Hierarchy of Effects Model, based on a survey of 960 respondents.

## Research Objectives

This article aims at identifying the factors affecting buying behaviour of the consumers for health and wellness food products in India. In particular, the study evaluates a set of variables related to socio-demographic profiles of the buyers, product attributes, market characteristics and psychological factors, which are likely to influence the purchase decisions for health and wellness foods in India.

## Rationale of the Study

Most of the studies undertaken for understanding the consumers' attitudes towards health and wellness foods and factors affecting the purchase decisions have been conducted in the developed markets, whereas there is rapid growth in the market potential in emerging markets like India. Consumer purchase behaviour for food is experiencing significant transformation across the world and consumers are now getting attracted towards good taste, convenience and health enhancing properties of food. The health and wellness food producing companies are increasingly undertaking newer initiatives to target the growing consumer markets. Because of the initiatives of these companies, a number of food products are being developed and are constantly coming up in the markets, aiming at satisfying the consumers' need for healthier food options. Therefore, it becomes imperative to understand of the market structure of health and wellness food industry and factors affecting buying behaviour for healthier food choices in the Indian market.

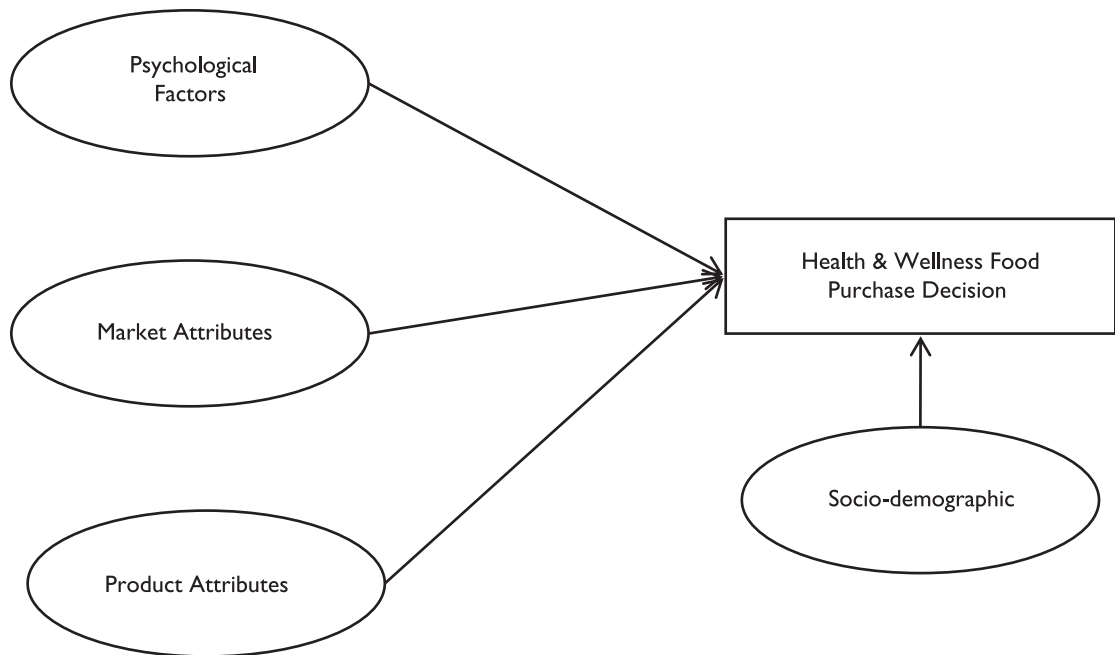
## Conceptual Research Framework

Empirical studies provide sufficient evidences on implication of demographic variables on purchase decisions (Cranfield, Henson, & Masakure, 2011; Goetzke & Spiller, 2014; Kapoor & Munjal, 2017; Petrovičová, 2009). Product and market attributes are other set of variables affecting the purchase decisions for healthy food products (Azam et al., 2012; Suh, Eves, & Lumbers, 2012). Divine and Lepisto (2005) examined the consumer's demographics, personal value and psychographic antecedents as important determinants of healthy lifestyle and food consumption. A conceptual research model has been developed and tested to understand the factors affecting purchase decisions of consumers on health and wellness food products. It has been assumed that socio-demographic profile such as age, gender, education, income and so on has significant influence on the purchase behaviour towards health and wellness food products. Further, this study evaluates the significance of the influence of product attributes, market attributes and psychological antecedents have on the purchase behaviour for health and wellness food products. Based on these assumptions, a conceptual research framework for this study is depicted in Figure 1.

## Methodology

### *Data Collection*

To understand the consumer behaviour for health and wellness food products, a primary consumer survey has been conducted in the city of Lucknow, India. Lucknow, a large and emerging city in northern



**Figure 1.** Conceptual Research Framework

**Source:** Prepared by the author.

India, is the capital of the state of Uttar Pradesh. A structured questionnaire based on primary survey was conducted using a multistage random sampling technique. The city of Lucknow comprises six administrative zones as per the Lucknow Development Authority's city development plan (2006), out of which three zones were selected using a random technique. At the second stage of sampling, all residential localities of the selected zones have been listed and three residential localities have been selected randomly. Finally, 25 households from each selected residential locality have been selected randomly from the voter list available with the local authorities. However, a total of 218 respondents from nine localities were included in the final analysis as seven respondents did not provide the complete information.

### *Survey Instrument*

A detailed structured questionnaire was designed and developed for the consumer survey covering various aspects of consumer purchase behaviour related to health and wellness food purchase. The questionnaire comprised two sections: (a) Information on demographic profile of the respondents and (b) Consumers' buying behaviour for health and wellness food products. A 5-point Likert scale (1 = not at all important, 2 = somewhat important, 3 = important, 4 = very important and 5 = extremely important) has been developed for recoding the consumers responses on factors affecting their buying behaviour. A pilot survey was conducted among 30 respondents to test the questionnaire and necessary modifications were made for final survey. Cronbach's alpha has been calculated to analyse the reliability of the scale used in the questionnaire, which is widely used test to measure the internal consistency of

the items in a survey instrument (Bonett & Wright, 2015; Christmann & Van Aelst, 2006; Cronbach, 1951; Helms et al., 2006). The construct validity has been done for all three scales developed for product attributes ( $\alpha = 0.842$ ), market attributes ( $\alpha = 0.802$ ) and psychological factor ( $\alpha = 0.685$ ). The survey was conducted in the evening or weekends to ensure availability of the respondents who were responsible for making the purchase decisions in their respective households.

## Data Analysis

The survey data has been analysed using various statistical tools and techniques such as descriptive statistics, factor analysis and regression analysis. Based on the nature of the dependent variable, an ordinary least squares (OLS) regression model has been developed and estimated to analyse the factors affecting the buying behaviour of consumers for health and wellness food products. Under the regression model, the number of health and wellness food products purchased by the respondent is considered to be the dependent variable with four sets of independent variables comprising socio-demographic profile of the consumers, product attributes, market attributes and psychological factors, which are likely to

**Table I.** Description of Regression Variables

Regression variables	Code
<i>Dependent variable</i>	
Number of health and wellness food products purchased	NHW
<i>Independent variables</i>	
<i>Socio-demographic variables</i>	
Gender (1 = male, 0 = female)	GEN
Age (1 $\geq$ 45 years, 0 $\leq$ 45 years)	AGE
Education (1 $\geq$ PG, 0 = otherwise)	EDU
Occupation (1 = employed, 0 = unemployed)	OCCP
Income (1 $\geq$ ₹40,000, 0 = otherwise)	INC
Family size (1 $\leq$ 4 members, 0 = otherwise)	FSIZE
<i>Product attributes</i>	
Product quality	PQ
Taste and flavour	TF
Packaging	PKG
Pricing	PRI
<i>Market attributes</i>	
Market offerings	MO
Shopping experience	SE
Market services	MS
<i>Psychological variables</i>	
Social prestige	SP
Health consciousness	HC
Information seeking	IS

**Source:** Prepared by the author.

influence the level of health and wellness food purchase. The empirical model for analysing the factors influencing the purchase behaviour of consumers for health and wellness food products is defined as:

$$P = \alpha + \sum_{i=1}^n \beta_i X_i + \varepsilon_i$$

where  $P$  = purchase of health and wellness foods,  $X_i$  is matrix of explanatory variables comprising socio-demographic factors, psychological factors, product attributes and market attributes,  $\beta$  is a vector of unknown parameters,  $\alpha$  is the intercept and  $\varepsilon_i$  is the error term.

Based on the variables used in the regression analysis, regression equation can be written as follows:

$$NHW = \alpha + \beta_1 GEN + \beta_2 AGE + \beta_3 EDU + \beta_4 OCCP + \beta_5 INC + \beta_6 FSIZE + \beta_7 PQ + \beta_8 TF + \beta_9 PKG + \beta_{10} PRI + \beta_{11} MO + \beta_{12} SE + \beta_{13} MS + \beta_{14} SP + \beta_{15} HC + \beta_{16} IS + \varepsilon$$

Table 1 provides description of variables used in the regression model. Dependent variable is indicated as the number of health and wellness food products purchased by the sample respondents. Socio-demographic variables have been transformed into binary values to assess the level of effect on the dependent variable. Further, independent variables related to product attributes, market attributes and psychological factors have been generated based on associated variables extracted by the factor analysis.

### *Socio-demographic Profile of the Respondents*

Table 2 provides socio-demographic profile of surveyed respondents. The profile of the respondents by gender shows that out of 218 respondents, about 70 per cent were males who normally make most of the household purchase decisions. The age distribution shows that 19.3 per cent respondents belong to the age group of below 25 years, 25.2 per cent were from the age group of 25–34 years, 27.1 per cent from the age group of 35–44 years, 18.8 per cent from the age group of 45–55 years and 9.6 respondents belong to the age group of 55 years and above. It is evident that most of the respondents surveyed were from general social category with a share of 62 per cent followed by other backward classes (27%) and schedule castes and tribes (11%). The educational profile of the respondents highlights that only 5 per cent respondents had education below higher secondary, 45.5 per cent respondents were graduates, 31.2 per cent respondents had postgraduate degrees, 12.4 per cent respondents had professional degree/diploma and 6 per cent respondents were PhD holders.

As far as occupation is concerned, 30.7 per cent respondents were government servants, 23.9 per cent respondents were doing private jobs, 16.1 per cent respondents had their own businesses, 4.6 per cent were retired professionals and 24.8 per cent respondents were unemployed. Students, homemakers and those seeking jobs have been included in the unemployed category. The income profile of the respondents show that 8.3 per cent respondents were having the household income of less than ₹20,000 per month, 20.2 per cent respondents belonged to the income group of ₹20,001–40,000 per month, and 22.5 per cent were from the income group of ₹40,001–60,000 per month. The income group of ₹60,001–80,000 consisted of 18.8 per cent respondents and ₹80,001–100,000 income group had 17 per cent respondents. The family structure of the respondents shows that 66.1 per cent respondents came from families having up to four family members. 19.3 per cent respondents belonged to families having 5–6 members, 7.8 per cent respondents came from families having 7–8 members and 6.9 per cent respondents were having nine or more than nine family members.

**Table 2.** Socio-demographic Profile of Respondents

Indicators	Number	Percentage
Gender		
Male	152	69.7
Female	66	30.3
Age distribution		
< 25 years	42	19.3
25–34 years	55	25.2
35–44 years	59	27.1
45–54 years	41	18.8
≥ 55 years	21	9.6
Social category		
General	136	62.4
OBC	59	27.1
SC/ST	23	10.6
Education		
Sec./High. Sec.	11	5.0
Graduate	99	45.4
Post Graduate	68	31.2
Dip/Profession course	27	12.4
PhD	13	6.0
Occupation		
Govt. service	67	30.7
Private service	52	23.9
Business	35	16.1
Retired	10	4.6
Unemployed	54	24.8
Monthly household income		
Less than ₹20,000	18	8.3
₹20,001–40,000	44	20.2
₹40,001–60,000	49	22.5
₹60,001–80,000	41	18.8
₹80,001–100,000	37	17.0
More than ₹100,000	29	13.3
No. of family members		
Up to 4	144	66.1
5–6	42	19.3
7–8	17	7.8
9 and above	15	6.9

**Source:** Authors' calculations.

## Analysis

### *Consumers' Response on Product Attributes*

Consumers' buying decisions are largely influenced by the product attributes (Alemu, Olsen, Vedel, Pambo, & Owino, 2017; Elzerman, Hoek, van Boekel, & Luning, 2011; Lagerkvist et al., 2016; Magalis,



Giovanni, & Silliman, 2016; Tirelli & Martínez-Ruiz, 2014). The principle of Lancaster's characteristics approach provides key theoretical insights on consumers' choices and preferences for products while making a purchase decision (Fernandez-Castroa & Smith, 2002; Lancaster, 1966). In the original theory, Lancaster propounded the idea that products are primarily consumed for the characteristics within the products. Therefore, product attributes have greater influence on the purchase decision. Food products also constitute a bundle of attributes and these may serve as important indicators influencing the consumers' purchase decisions. The consumers' responses on health and wellness food product attributes have been evaluated based on 12 indicators. Analysis of the consumers' preferences indicates that almost all the product attributes have been given high ratings by the consumers with a mean value of more than three (Table 3), implying that the product attributes are important factors affecting the purchase decision of the consumers. A closer look at the mean values indicates that quality and health benefits are highly rated by the consumers with mean value of more than four, making them the most important attributes for the consumers. These are followed by nutritional content, hygiene, food product certification and natural content of the product, which have mean values ranging from 3.74 to 3.98. Analysis of standard deviation indicates that there is significant variability from the mean value in the responses of consumers on almost all the product attributes, which ranges from 0.973 to 1.152.

Factor analysis was conducted to identify the underlying dimensions among a set of health and wellness food product attributes. The principal component analysis was done using varimax rotation criterion. The Kaiser criterion was used to retain only factors with eigenvalues greater than one. Based on factor analysis, four sets of components/factors emerged, which explains 59.421 per cent of variance. The total variance explained by factor one is 22.551 per cent, primarily comprising product quality attributes such as

**Table 3.** Rotated Component Matrix: Consumers' Response on Product Attributes

Attributes	Mean	SD	Component				Factors
			1	2	3	4	
Nutritional content	3.98	0.983	0.778	0.122	0.105	0.086	Product quality
Quality	4.10	1.106	0.764	0.245	-0.035	0.024	
Hygiene	3.97	1.068	0.612	0.204	-0.011	0.174	
Chemicals/preservatives/pesticides free	3.74	1.071	0.610	-0.053	0.264	-0.224	
health benefits	4.01	0.979	0.551	-0.380	0.292	0.261	Taste and flavour
Food product certification	3.78	1.152	0.547	0.116	0.095	0.403	
taste	3.62	1.095	0.082	0.820	0.122	0.086	
Enhanced flavour	3.22	1.040	0.345	0.681	0.132	-0.017	Packaging
Packaging	3.34	1.114	0.016	0.143	0.812	0.089	
Variety	3.41	1.075	0.180	0.078	0.787	0.070	Pricing
Price	3.58	1.053	0.078	-0.100	0.007	0.814	
Shelf life	3.36	1.110	0.070	0.346	0.265	0.543	
% of variance			22.551	13.079	12.978	10.812	
Cumulative %			22.551	35.630	48.608	59.421	

**Source:** Authors' calculations.

**Notes:** Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser Normalization.

**Table 4.** Rotated Component Matrix: Consumers' Response on Market Attribute

Attributes	Mean	SD	Component			Factors
			1	2	3	
Availability of quality products	3.80	0.971	0.806	0.026	0.113	Market offerings
Price competitiveness	3.46	1.021	0.648	0.027	-0.027	
Availability of branded products	3.59	1.004	0.596	0.330	0.082	
Shop assistance	3.08	1.026	0.177	0.815	0.093	Shopping experience
Display/assortment	3.19	1.037	0.036	0.814	0.127	
Hours of operation	3.24	1.052	0.257	0.016	0.848	Market services
Home delivery	3.15	1.195	-0.119	0.234	0.833	
% of variance			21.968	21.312	20.828	
Cumulative %			21.968	43.280	64.108	

**Source:** Authors' calculations.

**Notes:** Extraction method, Principal component analysis; Rotation Method, Varimax with Kaiser Normalization.

nutritional content, quality, hygiene, chemical and preservative free, health benefit and certification, as indicated by factor loading values. Factor two explains 13.079 per cent variation and loads high on factors related to taste and flavour of the product. Similarly, factor three explains variation of 12.978 per cent and correlates high on factors related to packaging of the product. Pricing of the health and wellness food product is extracted as Factor four, which explains 10.812 per cent variance. This analysis clearly categorizes the product attributes into four categories based on consumers' perspective, which can be used by various stakeholders in making appropriate decisions on health and wellness food product attributes.

### Consumers' Response on Market Attributes

Consumer's behaviour on shopping formats is changing rapidly and consumers are looking for a variety of shopping experiences. Under the primary survey, consumers were asked to report the importance of various market attributes based on their shopping experience at different retail formats. Table 4 depicts the consumer's preference on market attributes while buying health and wellness food products. As rated by the consumers, availability of quality product at the retail outlet is the most important market attribute followed by availability of branded products. It is clearly visible from the mean score of the ratings that consumers are very particular about the quality and brand of health and wellness food products.

Market attributes and shopping environment are other sets of factors, which are likely to affect the purchase decision of niche products such as health and wellness foods. Factor analysis has been further conducted to identify the underlying dimensions among a set of market attributes for health and wellness food products. The principal component analysis has been done using varimax rotation criterion. Based on the analysis, three factors have emerged, which explain 64.108 per cent of variance (Table 4). Market offerings which includes availability of quality products, price competitiveness in the market and availability of branded products, have a factor load of 21.968 per cent of variance. Shopping experience includes provision of shopping assistance and a proper display and assortment of the product in the store, having a factor load of 21.312 per cent of variance. Market services includes hours of store operations and provision of home delivery of the products, having a factor load of 20.828 per cent of variance.

**Table 5.** Rotated Component Matrix: Consumers' Response on Psychological Factors for Health and Wellness Food

Attributes	Mean	SD	Component			Factors
			1	2	3	
People who are successful in life generally buy healthy food.	3.19	1.168	0.837	0.002	0.022	Social prestige
Consumption of healthy food is an indication that I am wealthy.	3.18	1.120	0.795	-0.068	0.092	
Buying health and wellness food products is a symbol of prestige.	3.00	1.228	0.772	0.107	-0.062	
Consuming health and wellness food increases my respect in the society.	3.22	1.009	0.686	0.028	0.290	Health consciousness
I am concerned about the health and wellness of my family.	4.09	0.744	-0.103	0.806	0.105	
I convince my family and friends to buy healthy food.	3.90	0.867	0.139	0.790	0.064	
I am interested in information about my health.	4.08	0.802	0.017	0.730	0.127	Information seeking
I read the food label for information regarding health claims before buying health and wellness food products.	3.69	0.947	0.135	0.074	0.770	
I generally gather information before purchasing health and wellness food products.	3.76	0.983	0.026	0.174	0.744	
% of variance			27.211	20.657	14.168	
Cumulative %			27.211	47.868	62.036	

**Source:** Authors' calculations.

**Notes:** Extraction method, Principal component analysis; Rotation method, Varimax with Kaiser Normalization.

On the basis of the above analysis, the factors that are important for creating good environment for enhancing the sales of health and wellness food products can easily be identified.

### *Consumers' Response on Psychological Factors*

Empirical evidences indicate that psychological variables are having significant implications in purchase decisions for healthy and safe food products (Cockerham, 2005; Lesdéma et al., 2016; Michaelidou & Hassan, 2008). Consumers' responses on nine psychological statements have been recorded on a 5-points Likert scale. Table 5 provides analysis on consumers' responses on psychological concerns and considerations which come into play while the consumers are making their purchase decisions for health and wellness food products. The highest rated statement is related to the consumers' concerns for health and wellness of their families with mean score of 4.1. Similarly, consumers have also reported that they are interested in seeking information regarding their health for helping them in making buying decisions

for health and wellness food products. Therefore, most of the respondents reported that self and family health is the key deciding factors for buying health and wellness food products. Most of the consumers gather information before buying health and wellness food products. Therefore, health and wellness companies need to provide sufficient information to the consumers about their products for better market realization. It is also evident that health and wellness food buying is a symbol of social prestige, and the consumption of health and wellness food is a good indicator of success, wealth and respect in the society.

It is assumed that psychological factors may have important implications in influencing the purchase decision for health and wellness food products. To identify the underlying dimensions among a set of psychological factors influencing the purchase of health and wellness food product, factor analysis has been done using the principal component analysis with varimax rotation criterion. The Kaiser criterion was used to retain only factors with eigenvalues greater than one. Based on factor analysis, three sets of components/factors emerged, which explain 59.421 per cent of variance (Table 5). Social prestige, which includes attributes related to success in life, wealth, respect in the society and symbol of prestige, has a

**Table 6.** Regression Estimates—Factors Affecting Purchase Decision for Health and Wellness Food Products

Variables	Variable Code	Standardized Coefficients		
		$\beta$	<i>T</i>	Sig.
(Constant)			5.764	0.000
Gender (1 = male, 0 = female)	GEN	-0.073	-1.030	0.304
Age (1 $\geq$ 45 years, 0 $\leq$ 45 years)	AGE	-0.051	-0.727	0.468
Education (1 $\geq$ PG, 0 = otherwise)	EDU	-0.064	-0.891	0.374
Occupation (1 = employed, 0 = unemployed)	OCCP	-0.070	-0.968	0.334
Income (1 $\geq$ ₹40,000, 0 = otherwise)	INC	0.194***	2.697	0.008
Family size (1 $\leq$ 4 members, 0 = otherwise)	FSIZE	-0.129*	-1.791	0.075
Product quality	PQ	0.323**	1.513	0.032
Taste & flavour	TF	-0.067	-0.889	0.375
Packaging	PKG	0.149*	1.862	0.064
Pricing	PRI	0.019	0.247	0.805
Market offerings	MO	0.157**	1.999	0.047
Shopping experience	SE	0.063	0.797	0.426
Market services	MS	-0.216***	-2.897	0.004
Social prestige	SP	0.188**	1.190	0.020
Health consciousness	HC	-0.040	-0.537	0.592
Information seeking	IS	0.088	1.179	0.240
<i>R</i>		0.352		
<i>R</i> square		0.125		
Adjusted <i>R</i> square		0.054		
ANOVA				
<i>F</i>		1.768**		
<i>df</i>		16		
Sig.		0.041		

Source: Authors' calculations.

Notes: \*\*\*Significant at the 0.01 level, \*\*significant at the 0.05 level, \*significant at the 0.10 level.

factor load of 27.211 per cent of variance. Health consciousness, which includes concern for health of self, family and friend, is having a factor load of 20.657 per cent of variance. Information seeking, which includes reading food label and gathering information on health and wellness, is having a factor load of 14.168 per cent of variance.

### *Factors Affecting Consumers' Purchase Decision*

Several studies have been conducted to analyse and identify the key decisional variables affecting the purchase decision for health and wellness food products (de-Magistris & Gracia, 2017; Gifford & Bernard, 2006; Kapoor & Munjal, 2017; Kraus, 2015; Teng & Wang, 2015). A regression model has been developed to predict the factors affecting the purchase decision for health and wellness food products based on the survey data collected from 218 respondents. Number of health and wellness food products purchased by the respondent has been taken as the dependent variable in the regression model. Based on the nature of the dependent variable, an OLS regression model has been used. Four sets of variables have been identified, which are likely to influence the level of health and wellness food purchase. These four sets of independent variables are socio-demographic variables, product attributes, market attributes and psychological factors.

The results on the coefficient estimate, *t*-value and significance levels for the parameters of the OLS regression model on factors affecting the purchase decision for health and wellness food products are presented in Table 6. The value of *R* Square and significance of ANOVA indicate goodness of fit of the regression model. Result of the regression analysis clearly indicate that income and family size are two important indicators of socio-demographic profiles which are more likely to affect the purchase decision for health and wellness food significantly. Income has a significant and positive relationship with the health and wellness food purchase decision. This implies that consumers with comparatively higher income are more likely to purchase more health and wellness food products. Contrary to this, there is inverse relationship between health and wellness food purchase behaviour with the family size of the consumer at 10 per cent level of significance. This indicates that consumer with comparatively smaller family size are more likely to purchase health and wellness food products. Out of six socio-demographic variables, income and family size are significant factors affecting the purchase decision. Hence, the assumption that the socio-demographic profile has influence on the purchase behaviour towards health and wellness food products is partially accepted.

Regression analysis clearly indicates that product quality and packaging are two variables of the product attributes having significant influence on health and wellness food product purchase decision. Those consumers who give high importance to food quality are more likely to purchase health and wellness food products. Similarly, those consumers who give high importance to food packaging are more likely to purchase health and wellness food products. This implies that the assumption of the product attributes having influence on the purchase behaviour towards health and wellness food products is partially accepted.

With changing buying behaviour for convenience, consumers consider a number of market attributes while making their purchase decision. Market offerings in the form of availability of quality products, price competitiveness in the market and availability of branded products are the important influencing factors, which are considered while making health and wellness food purchase decision. Contrary to this, there is inverse relationship between health and wellness food purchase behaviour and market services in terms of hours of operation and home delivery at 1 per cent level of significance. Out of three market attributes, two factors significantly affect the purchase decision. Hence, the assumption that the market

attributes have influence on the purchase behaviour towards health and wellness food products is largely accepted.

Psychological factors are other set of variables, which are more likely to affect the purchase decision for health and wellness food products. Out of the three extracted psychological variables, only one variable is significantly affecting the purchase decision that is social prestige. This implies that those consumers who are more concerned about their social prestige are more likely to purchase health and wellness food products. Hence, the assumption that psychological factors have influence on the purchase behaviour towards health and wellness food products is partially accepted.

## **Conclusion and Managerial Implications**

The analysis of the market trends for health and wellness food products in India is showing increasing potential for various types of products. Food safety and quality have become increasingly important in consumers' food choices. The magnitude of retail value growth in various types of health and wellness food products varies significantly. Organic and naturally healthy food markets have been growing at comparatively very high annual growth rate. Analysis of compound annual growth rate for health and wellness food products by category depicts that packaged health and wellness food products' market is growing much faster than health and wellness beverages. Health support products for bone and joint health, brain health and memory, cardiovascular health, digestive health, endurance, energy boosting, immune support and oral and respiratory health are the fastest growing product categories in terms of prime positioning of health and wellness food products.

A buying behaviour model for health and wellness food products has been developed through this study. The result of analysis of survey data indicates that consumers prefer a variety of product attributes while making purchase decision for health and wellness food. The result of the mean values' analysis indicates that quality and health benefits are the product attributes which have been rated highly by the consumers followed by nutritional content, hygiene, food product certification and natural content of the product. The result of regression analysis indicates that income and family size are the factors, which are significantly affecting the purchase decision. Similarly, product quality and packaging are having significant influence on health and wellness food product purchase decision. From the market attributes, market offerings and market services are the factors affecting the purchase decision, significantly. Social prestige is the key psychological variable, which is more likely to affect the purchase decision for health and wellness food products.

This study helps in identifying and understanding factors that affect a consumer's decision-making process while considering purchase of health and wellness food products. This can help the marketers of health and wellness food products in developing more effective marketing strategies in terms of product characteristics, market attributes and psychographic variables. Understanding the psychological factors which affect a consumers' decision-making process while selecting food products can also help the marketers in formulating optimal strategies to educate the consumers and encourage improvement in eating habits of the consumers by incorporating healthier options in their food baskets. The factors underlying the decision making for healthy food purchase will also be helpful for the producers in designing and developing newer and healthier food products and can guide them to properly segment their markets in terms of choice of where and how to market these products. It also provides insights to the regulatory authorities for ensuring delivery of safe food in the market and also provisioning healthy competition among the market players in the health and wellness food industry. The policymakers also need to check the authenticity of the health claims made by the health and wellness food producing companies, by way of strengthening the existing regulations.

## Limitations/Future Research

This study provides a comprehensive learning on health and wellness food products' market structure, consumers' preferences on product attributes and factors affecting health and wellness food purchase decision and provides practical insights to various stakeholders such as companies, regulators, channel partners, consumers and researchers. However, every research faces some possible limitations at its various stages. The major limitations of this research can be highlighted in the form of location, sample size, population coverage, survey bias, analytical tools and methods and theoretical basis of conducting the study. This study has been conducted in the city of Lucknow. For a more comprehensive and clearer picture of the behaviour of Indian consumers with respect to health and wellness food products, similar studies can be conducted in other regions as well. Further, statistically advanced techniques such as structural equation modelling (SEM) may also be explored to get more wide-ranging, meaningful and robust results on the consumer buying behaviour. Most of the empirical evidences have been focusing on functional and organic food products in the developed markets. There is a huge scope for undertaking research on health and wellness food products in the context of emerging economies and developing markets. Future research can also focus on other types of health and wellness food products like nutraceuticals, which are a fast emerging category related to functional food products. There is also scope for utilizing theoretical models with multidisciplinary focus to understand the consumer buying behaviour on health and wellness food products in future researches.

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