

# Consumer Acceptance of Branded Fortified Foods and Beverages in India : Towards a Conceptual Framework

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## Abstract

**Purpose :** Consumer response to food products is an extremely complex and rapidly evolving field. The prime purpose of this conceptual paper was to explore the impact of different factors on the consumer acceptance of branded fortified foods and beverages (FFBs) in the Indian food market.

**Methodology :** The study was grounded on extensive review of literature. The study has explored insights on the significant variables which had a substantial contribution towards consumer acceptance of FFBs.

**Originality :** It was identified that a clear dearth of research studies regarding consumer acceptance of FFBs is still missing in India. In the Indian context, the present study is the initial one of its kind and tried to address this research gap and developed a conceptual framework for consumer acceptance of FFBs.

**Findings :** The intense review of literature led the study for identifying the contributing elements on consumer acceptance of FFBs. Accordingly, a unified conceptual framework of consumer acceptance has been proposed for the Indian FFBs market.

**Limitations :** The study is limited to a conceptual understanding of consumer acceptance of branded FFBs in the Indian context. The consumer acceptance model proposed in the study was purely grounded on the review of past literature.

**Practical Implications :** The model developed in the study can be a direction to the fortified food industry to fragment and position their offerings effectively to mould a healthy generation.

**Future Research Directions :** This study discussed the various determinants of consumer acceptance. Empirical research studies are recommended to test and validate the proposed propositions.

**Keywords:** branded fortified foods, consumer knowledge, nutritional labelling, purchase intention, consumer acceptance

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The research study on consumer behaviour towards food products is a multifaceted area. This implicates an extensive variety of scientific disciplines, ranging from scientific food research and technology to nutrition, human physiology, consumer psychology, biochemistry, and marketing of food products to the end consumers. Consumer buying behaviour largely depends on the cultural factors, and the culture varies from

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country to country (Banerjee, 2008 ; Goyal & Singh, 2007). Acceptance of food is basically the result of the interaction between food and man at a certain moment (Shepherd, 1989). Food choice is influenced by a large number of factors, including socio-demographic factors as well as lifestyle and cultural determinants (Shepherd, 1999). Earlier research studies have confirmed that willingness to buy and consumer acceptance of food products vary according to the personal values and cultural background of the people (Sivathanu, 2017), and it was suggested that more research is needed in order to formulate more effective marketing strategies (Dolgoplova, Teuber, & Bruschi, 2015).

Indian consumers are switching from unhealthy food consumption habits to healthy food choices (Daedal Research, 2012). As a result, the consumer food market in the nation has become a highly competitive market for health foods & beverages of different brands. Research studies have continuously revealed that the major part of food marketing strategies are made to market unhealthy foods (Chapman, Kelly, & King, 2009) particularly targeting the adolescent segment of consumers (Sivathanu, 2017). Past research revealed a clear dearth of research studies on the promotion and consumer acceptance of fortified foods in the Indian context (Sharma & Garg, 2013). It was identified that fortified foods have progressively entered markets in developing countries, but little is known about their status (Seechurn, Neeliah, & Neeliah, 2009) and consumer acceptance part, which is pivotal for the success of marketing new functional/ fortified food products (Ali, 2018 ; Annunziata & Vecchio, 2010 ; Bornkessel, Broring, & Omta, 2011 ; Verbeke, 2005). As India is a multicultural country, the present study has the potentiality to explore consumer acceptance of people from different cultural and lifestyle backgrounds. Hence, this study tries to fill this gap.

The present research study is intended to provide better insights towards consumer behaviour on acceptance of FFBs and help policy makers to make sound health policies for improving the nutritional status of the public. Therefore, the focus of the present study is to propose a conceptual model for the acceptance of branded FFBs among Indian consumers.

The prime objective of the conceptual paper is to explore the impact of different factors on the consumer acceptance of branded FFBs and the specific goal is to investigate the role of consumer knowledge and nutritional labelling characteristics on the acceptance of FFBs in India. Consequently, by applying the fundamental principles of the theory of planned behavior (TPB), the present research study has developed a FFB acceptance model that incorporates the acceptance of FFBs at the individual level.

A research study from Kolkata, an Indian metro city, showed that the Indian youth reported poor food intake behaviour ; hence, there is an immense need to plan effective nutrition promotion strategies to instigate healthy diet in the urban agglomerations of the country (Rathi, Riddell, & Worsley, 2017). The World Health Organization (WHO, 2014) identified nutrition as an important determining factor of lifestyle diseases and the WHO suggested the nutrient consumption in the form of fortified foods in order to prevent the occurrence of lifestyle diseases. Hence, the study is focused on the consumer behavioural patterns of the people in the metro regions of the country as they are the more vulnerable groups for lifestyle diseases.

## **Review of Literature**

The conceptual research study reviews literature on consumer behaviour studies of food products with additional health benefits. Accordingly, a comprehensive review of literature was conducted using various keywords such as “healthy eating,” “food purchasing behaviour,” “nutritional labelling,” “consumer knowledge,” “consumer acceptance of food products,” “consumer behaviour in food choice,” “consumer lifestyle diseases,” “food product marketing,” “consumer lifestyle,” etc. to retrieve related research papers and market reports from well - known academic databases such as EBSCO Host, Scopus, Google Scholar, Science Direct, and MEDLINE. The initial search on these databases resulted in an enormous number of research articles. Hence, the study has considered

only those articles which had a direct link between health and human diet. Accordingly, the study identified research papers published in reputed journals and shortlisted those that were based on empirical studies.

**(1) Fortified Foods and Beverages (FFBs) :** According to FSSAI, fortification is the addition of key vitamins and minerals such as iron, iodine, zinc, vitamins A & D to staple foods such as rice, wheat, oil, milk, and salt to improve their nutritional content. FSSAI (2019) defined fortification as, “deliberately increasing the content of essential micronutrients in a food so as to improve the nutritional quality of food and to provide the public health benefits with minimal risk to health.” (p.14). FFBs are the prime functional food (FF) segment within the nutrition food and beverages market. Food products fortified with extra ingredients or appropriately improved to provide a different health benefit are known as fortified food products (PwC - FICCI, 2013). Major FFB brands in India include Kellogg's Special K breakfast cereals, Aashirvaad Fortified Atta, Nestle Cerelac Infant Cereal, PediaSure Grow & Gain, etc.

**(2) Consumer Acceptance of Branded FFBs - Indian Scenario :** India, with its population of 1.2 billion (Census of India, 2011) is one of the largest consumer markets and the world's second largest producer of food products, which has a huge potential for different stakeholders (Solanki & Sheth, 2015). A Grant Thornton and Federation of Indian Chambers of Commerce and Industry (FICCI) (2015) report showed that the food and beverage (F&B) service market was worth INR 2,04,438 crore and was expected to reach INR 3,80,000 crore by 2017 with over 25% yearly growth. Demographics, increase in disposable income, change in customer preferences, rise in number of working women, and health and hygiene consciousness factors are the main demand drivers for the Indian F&B market (Grant Thornton & FICCI, 2015). The food and beverage sector in India has well advanced over the past decade. Considering the diversity of foods and different cultures in India, a large variety of foods will need to be fortified (Dharni & Gupta, 2015). Indian consumers are more health conscious and they are not willing to risk health for taste, and this is driving companies to launch FFBs. As a result, the food industry is reacting to it by coming up with healthy versions of their products.

Earlier research studies indicated that without a comprehensive and deep understanding of consumer acceptance, it is difficult to plan effective marketing strategies. Thus, it is vital to investigate the nature of consumer acceptance in consumer behaviour studies. The Table 1 depicts the earlier research studies related to consumer acceptance of food products.

**Table 1. Research Studies on Consumer Acceptance of Food Products**

| Author & Year  | Variables Studied  | Area of Research   | Major Findings  |
|--|--|--|---|
| Bhagat & Ravi (2018)                                   | <ul style="list-style-type: none"> <li>• Activeness</li> <li>• Relaxation</li> <li>• Packaging</li> <li>• Arousal</li> <li>• Advertisement</li> <li>• Health-Consciousness</li> <li>• Taste</li> </ul> | Consumer purchase intentions of health drinks in India.      | 'Activeness' was the utmost preferred factor for the consumption of health drinks in India.                                 |
| Behrens, Martins, Villanueva, Nunes, & Landgraf (2015) | <ul style="list-style-type: none"> <li>• Positive information</li> <li>• Purchase intention</li> <li>• Socioeconomic characteristics</li> </ul>  | Consumer acceptance of an irradiated food product in Brazil. | Positive information has increased the acceptability. Acceptance and purchase intention were higher among female consumers. |
| Rojas - Méndez, Nestour, & Rod (2015)                  | <ul style="list-style-type: none"> <li>• Attitude</li> <li>• Consumers' health consciousness</li> <li>• Environmental concerns</li> </ul>  | Determinants of organic wine purchase by Canadian consumers. | Attitude was the main factor for organic wine consumption. Environmental concerns and price consciousness                   |

|   |   |   |  |
|---|---|---|--|
|   | <ul style="list-style-type: none"> <li>• Price consciousness</li> </ul>   |   | did not have any major impact.   |
| Sandmann, Amling, Barvencik, König, & Bleibler (2017)       | <ul style="list-style-type: none"> <li>• General knowledge about vitamin D</li> <li>• Health awareness</li> <li>• Access to nutritional information</li> <li>• Trustworthiness of information channels</li> </ul> | Acceptance of vitamin D - fortified products in Germany.                        | Knowledge and awareness were the vital factors of consumer acceptance.   |
| Siegrist, Shi, Giusto, & Hartmann (2015)                    | <ul style="list-style-type: none"> <li>• Health motivation</li> <li>• Trust</li> <li>• Food neophobia</li> <li>• Cultural factors</li> </ul>  | Consumer acceptance of FF and beverages in Germany and China.                   | Health motivation, cultural factors, and trust were the significant factors for consumer acceptance.                               |
| Rezai, Teng, Mohamed, & Shamsudin (2014)                    | <ul style="list-style-type: none"> <li>• Perceived benefits</li> <li>• Attitude</li> <li>• Subjective norms</li> <li>• Perceived susceptibility</li> <li>• Perceived behavioral control (PBC)</li> </ul>          | Purchase intention towards synthetic FF in Malaysia.                            | Attitude, perceived benefits, and subjective norms were the key determining factors.   |
| Rojas -Méndez, Ahmed, Claro - Riethmüller, & Spiller (2012) | <ul style="list-style-type: none"> <li>• Attitude towards biotechnology</li> <li>• Health consciousness</li> <li>• Time pressure</li> </ul>   | Acceptance of genetically modified foods (GMF) with health benefits in Germany. | Acceptance of GM foods was strongly influenced by attitude. Limited information or lack of understanding had a negative influence. |

Acceptance of food products is significant to overcome the market challenges and successfully exploit the market opportunities (Annunziata & Vecchio, 2013). It was identified that there is a clear dearth of research studies concerning marketing of functional foods in developing countries (Verbeke, 2005) since India is a nation with 1.27 billion population of boundless market potential for healthy foods, the needs for FFPs are to be explored in the context of the Indian market. Consumers' increasing health consciousness gives an opportunity for the players of the food industry in order to come up with more diversified range of healthy food products to explore the market potential. Subsequently, by identifying the lifestyle changes of the consumers, the businesses can restyle their offerings to the consumers. The outcome of the research is aimed to serve as a guideline to how marketing tools can be used in the field of health development of consumers through the promotion of functional food acceptance among Indian consumers.

**(3) Theoretical Background - Theory of Planned Behaviour (TPB) :** Better understanding of consumer decision making processes is possible only through recognizing the multifaceted dimensions of consumer behaviour. The theory of planned behavior (TPB) is a theory in psychology that links people's beliefs and behavior (Ajzen, 1991) and is considered as one of the finest predictive persuasion theories (Armitage & Conner, 2001). Earlier research studies showed that TPB has its application in various fields like health behaviors, advertising, public relations, substance use, and among others of the relations among beliefs, attitudes, behavioral intentions, and behaviors (Ajzen & Sheikh, 2013 ; Arvola, Vassallo, Dean, Lampila, Saba, Lähteenmäki, & Shepherd, 2008 ; Mullan & Wong, 2009 ; Zemore & Ajzen, 2014). Review of earlier research studies revealed that there is a lack of research insights on consumer culture, lifestyle, consumer knowledge, and nutritional labelling constructs in the theoretical models. Thus, the study has incorporated consumer culture and lifestyle attributes and consumer knowledge and nutritional labelling variables in the TPB model to get better prediction over consumer acceptance towards branded FFBs in India. The Table 2 demonstrates the research studies on consumer acceptance of food products using TPB.

**(4) Culture and Lifestyle :** Earlier research recognized that attitude towards fortified foods tends to be cultural specific (Labrecque, Doyon, Bellavance, & Kolodinsky, 2006) and cultural factors play a substantial role in the

**Table 2. Research Studies on Consumer Acceptance of Food Products Using Theory of Planned Behaviour (TPB)**

| Author & Year                           | Variables Studied  | Area of Research  | Major Findings  |
|---|--|---|---|
| Paul, Modi, & Patel (2016)              | <ul style="list-style-type: none"> <li>• Attitude</li> <li>• PBC</li> <li>• Subjective norms</li> <li>• Intention</li> <li>• Environmental concerns</li> </ul>   | Predicting green product consumption.                               | Consumer attitude and PBC significantly predicted purchase intention. Subjective norm had lesser impact on intention. |
| Yadav & Pathak (2016)                   | <ul style="list-style-type: none"> <li>• Attitude</li> <li>• PBC</li> <li>• Subjective norms</li> <li>• Intention</li> <li>• Environmental concerns</li> <li>• Health consciousness</li> <li>• Moral attitude</li> </ul> | Intention to purchase organic food among young consumers.           | Purchase intention was predicted by moral attitude and health consciousness. Subjective norms had no impact.          |
| Watanabe, Berry, Willows, & Bell (2015) | <ul style="list-style-type: none"> <li>• Attitude</li> <li>• PBC</li> <li>• Subjective norms</li> <li>• Intention</li> </ul>   | Intentions to eat low-glycemic index foods by adults with diabetes. | Attitude, subjective norms, and PBC had direct effects on intention.  |
| Rezai et al. (2014)                     | <ul style="list-style-type: none"> <li>• Perceived benefits</li> <li>• Attitude</li> <li>• Subjective norms</li> <li>• Perceived susceptibility</li> <li>• Perceived severity</li> <li>• Perceived barrier</li> </ul>    | Purchase intention towards synthetic FF in Malaysia.                | Perceived benefits, attitude, and subjective norms were the main predictors.  |
| Yap, Noor, Marshall, & Liew (2014)      | <ul style="list-style-type: none"> <li>• Health consciousness</li> <li>• Health motivation</li> <li>• Health value</li> <li>• Health knowledge</li> <li>• Attitude</li> </ul>  | A combination of the health belief model (HBM and TPB) were used.   | Promoting preventive health behaviour among young Malaysian consumers.  |
| Cook, Kerr, & Moore (2002)              | <ul style="list-style-type: none"> <li>• Self-identity</li> <li>• Attitude</li> <li>• PBC</li> <li>• Subjective norms</li> </ul>   | Intentions towards purchasing GM food.                              | Health consciousness, health motivation, and health value were the major factors.                                     |
|   |  |   | Self-identity, attitude, subjective norms, and PBC had a substantial impact on intention to purchase GMFs.            |

acceptance of functional foods (Siegrist et al., 2015). Better understanding of consumers' cultural background is also important because perception of food and diet varies according to the cultural differences (Jonas & Beckmann, 1998). Indian food choices mainly depend on the culture and family values (Counihan & Van Esterik, 2012). Moreover, religion and tradition of consumers also play a vital role in food choices. It was observed that Indian consumers feel that homemade food is much better than food served at fast food shops (Goyal & Singh, 2007), but in case of Western consumers, they prefer more fast food products than homemade food (Bowman & Vinyard, 2004). Since India is a multicultural country, it is expected that the behavioural patterns of Indian consumers will be different, and the present study has the potentiality to explore consumer behaviour of people from different cultural and lifestyle backgrounds. Hence, it is proposed that :

✍ **Proposition 1 :** Culture and lifestyle of consumers is significantly related with purchase intention towards branded FFBs.



**(5) Attitude :** Ajzen (1991) identified attitude as the major determinant of purchase intentions towards a particular brand or product. Attitude in the food field reflects a consumer's learned inclination towards food products and combines hedonic and nutritional components (Marty, Chambaron, Bournez, Nicklaus, & Monnery - Patris, 2017). Dowd and Burke (2013) pointed that attitude is a consistent predictor of consumer behavioural intention regarding food choices and is the strongest determinant of organic and health - enhancing food choices (Bogue, Therese, & Douglas, 2005 ; Yazdanpanah & Forouzani, 2015). Anssi and Sundqvist (2005) identified that purchase intentions of organic food were mediated by consumer attitude towards the organic food products. However, earlier research studies (Bilgiç & Yuksel, 2012) revealed that there is a lack of knowledge about consumer attitude towards the fortified foods, specifically in the multicultural context. Accordingly, it is proposed that :

✍ **Proposition 2 :** Consumer attitude is significantly related with purchase intention towards branded FFBs.

**(6) Subjective Norms :** It was identified from a research study (Kapsak, Rahavi, Childs, & White, 2011) that health professionals, educators, and communicators have a significant role in communicating health benefits of FF to the end users. It was confirmed that in India, consumer attitude towards new processed food products is influenced by subjective norms (Choo, Chung, & Pysarchik, 2004). Moreover, it was identified that synthetic functional food consumption is substantially influenced by subjective norms (Rezai et al., 2014). However, past studies (Paul et al., 2016 ; Yazdanpanah & Forouzani, 2015) revealed that subjective norms don't have much influence on purchase intention ; whereas, consumer attitude significantly does. Hence, the current research wants to conclude how the construct of subjective norms will impact the consumer purchase intention. Thus, the following proposition is proposed :

✍ **Proposition 3 :** Subjective norms of consumers are positively related with consumer intention to purchase branded FFBs.

**(7) Perceived Behavioural Control :** Perceived behavioural control (PBC) means the perception of the easiness or difficulty of the particular behaviour. This perception of control can moderate the relationship between intention and behavior, concluding that intention to purchase will lead to purchase behavior when PBC is high (Gardner & Hausenblas, 2004). According to TPB, intention to perform the behaviour leads to behaviour in combination with PBC (Ajzen, 1991) and identified that perceived control over the performance of a behaviour can cause substantial variance in intentions and performance. Moreover, Fila and Smith (2006) and Godin and Kok (1996) revealed that PBC is significant as attitude across health-related behavior. Previous research studies have shown that PBC positively leads to purchase intention in different research contexts, such as conservation (Albayrak, Aksoy, & Caber, 2013), organic foods (Anssi & Sundqvist, 2005), green hotels (Chen & Tung, 2014 ; Chang, Tsai, & Yeh, 2014), and purchase of ethical products (Denyse & Bhagat, 2018). Interestingly, in a research study by Yazdanpanah and Forouzani (2015), it was found that PBC is not an important predictor of purchase intention. Henceforth, it is necessary to have clarity on the predictive power of PBC on consumer intention to purchase branded FFBs. Accordingly, it is proposed that :

✍ **Proposition 4 :** Perceived behavioural control of a consumer is positively associated with intention to purchase branded FFBs.

**(8) Consumer Knowledge :** Raju, Lonial, and Glynn Mangold (1995) identified that consumer knowledge is an imperative factor in the research on consumer decision making. Further, it was confirmed that consumer

**Table 3. Research Studies Establishing the Influence of Consumer Knowledge**

| Author & Year                      | Variables Studied   | Area of Research  | Major Findings   |
|------------------------------------|---|---|--|
| Aylin et al. (2014)                | <ul style="list-style-type: none"> <li>• Socio-demographic factors</li> <li>• Knowledge about FF benefits</li> </ul>  | Consumers' awareness, acceptance, and attitudes towards functional foods in Turkey. | Knowledge about FF benefits and socio-demographic characteristics affected consumers' acceptance.                    |
| Mandal & Paul (2012)               | <ul style="list-style-type: none"> <li>• Attitude</li> <li>• Concern for health</li> <li>• Knowledge of the product</li> <li>• Information</li> </ul>       | Consumer perception of GMF in India.  | Information about GM food and concern for health were the crucial factors for consumer acceptance.                   |
| Costell, Tarrega, & Bayarri (2010) | <ul style="list-style-type: none"> <li>• Information</li> <li>• Past experience</li> <li>• Attitudes and beliefs</li> </ul>                                 | Food acceptance   | Information about food product was the key factor for acceptance.  |
| Labrecque et al. (2006)            | <ul style="list-style-type: none"> <li>• Health and product-related benefits</li> <li>• Credibility of information</li> <li>• Consumer knowledge</li> </ul> | Consumers' acceptance of functional foods.  | Consumer knowledge led to acceptance. Credibility of information was a positive determinant of the acceptance of FF. |

knowledge about fortified foods and beverages plays an imperative role in the purchase decision, and it is the essential determinant of acceptance (Aylin, Murat, Duygu, & Şaziye, 2014 ; Bogue et al., 2005 ; Labrecque et al., 2006 ; Sandmann et al., 2017) and it was identified that research studies have not focused on consumer knowledge aspects, which is treated as an important element of FF marketing (Saaksjarvi, Holmlund, & Tanskanen, 2009). For the success of functional food marketing, it is vital to identify the real users of FF and recognize their knowledge, norms, and motivation to use such products (De Jong, Ocke, Branderhorst, & Friele, 2003).

Lack of knowledge or limited information may create an adverse influence on GMF choice (Rojas et al., 2012). In frozen food purchase intentions, consumer knowledge emerged as the critical factor (Saleem, Wasaya, & Zahra, 2017). Hence, it is clear that information and consumer knowledge can enhance purchase intention (Miles, Ueland, & Frewer, 2005). In India, consumer perception towards GMF was largely determined by consumer knowledge and information about the product (Mandal & Paul, 2012). Moreover, consumer awareness and knowledge act as a vital factor in changing the consumers' attitude towards organic foods (Jayanthi, 2015). Hence, the present study tries to explore the effect of consumer knowledge towards acceptance of fortified foods and beverages. Thus, the following proposition is proposed :

➤ **Proposition 5 :** Consumer knowledge significantly influences purchase intention towards branded FFBs.

The Table 3 shows the research studies establishing influence of consumer knowledge on consumer acceptance of food products.

**(9) Nutritional Labelling :** According to FSSAI (2012), “label” means, “any tag, brand, mark, pictorial or other descriptive matter, written, printed, stenciled, marked, embossed graphic, perforated, stamped or impressed or securely affixed to the container, cover, lid or crown of any food package” (p.1). “Labelling” includes “any written, printed or graphic matter that is present on the label accompanying the food” (p. 1). Earlier research studies revealed that consumer acceptability and consumer buying intention of an irradiated food product can be increased by positive information (Behrens et al., 2015) and it was suggested that to get more acceptance of synthetic functional foods, the competence of marketers to convey the health benefits of food products is an important part in the marketing domain. Thus, it is important to provide nutritional information on product labels

**Table 4. Research Studies Establishing the Influence of Nutritional Labelling**

| Author & Year  | Variables Studied   | Area of Research   | Major Findings   |
|--|---|--|--|
| Hwang & Lin (2010)   | <ul style="list-style-type: none"> <li>• Familiarity</li> <li>• Nutrition information</li> <li>• Food neophobia</li> </ul>                                  | Consumer acceptance of novel foods in U.S.   | Nutrition information moderated the impact of familiarity. Food neophobia negatively influenced consumer acceptance. |
| Kolodinsky, Labrecque, Doyon, Reynolds, Oble, Bellavance, & Marquis (2008) | <ul style="list-style-type: none"> <li>• Labelling</li> <li>• Culture</li> <li>• Education efforts</li> <li>• FF knowledge</li> <li>• Attitudes</li> </ul>  | College students' acceptance of functional foods.  | Stronger labelling and education efforts had increased cross-cultural acceptance of FF.                              |
| Kim & Milton (2006)  | <ul style="list-style-type: none"> <li>• Labelling information</li> <li>• Concern for food safety issues</li> </ul>   | Consumers' acceptance of GMF in Japan.   | Limited information and lack of understanding had a negative impact. Food labelling had a significant influence.     |
| Miles et al. (2005)  | <ul style="list-style-type: none"> <li>• Consumer attitudes</li> <li>• Consumer trust in regulators</li> <li>• Information about health benefits</li> </ul> | Purchase intention towards GMF among three countries: Austria, Spain, and the Netherlands. | Providing information about health benefits increased purchase intention towards GMF.                                |

(Rezai et al., 2014) and for enhancing the lucidity of nutrition labels, more research is required (Annunziata & Vecchio, 2010).

The amount of top quality research studies investigating how consumers use nutritional labels is limited (Crockett, Hollands, Jebb, & Marteau, 2011). Mandle, Tugendhaft, Michalow, and Hofman (2015) suggested that research studies are required to ascertain the effectiveness of food labels, how consumers across diverse demographics use labels in real world situations, and the long-term health outcomes of labelling. A research study by Dharni and Gupta (2015) identified that fewer studies are available on understanding of nutrition labelling, effect of nutrition label use on purchasing behaviour, and the effect of label use on dietary changes. Additionally, need for research regarding the impact of nutrition labels in developing countries has been emphasized (Campos, Doxey, & Hammond, 2011). The present study explores the effects of nutritional labelling aspects on consumer acceptance of branded FFBs by proposing the following assumption :

✍ **Proposition 6 :** Nutritional labelling has a substantial impact on purchase intention towards branded FFBs.

The Table 4 shows research studies establishing the influence of nutritional labelling on consumer acceptance of food products.

From the review of literature, it has been identified that there is a lack of research studies that included nutrition labelling and consumer knowledge constructs in the theoretical models to predict food choice behaviour, especially in fortified food products. Consequently, it is unclear how nutritional labelling and consumer knowledge factors affect consumer acceptance of FFBs. Thus, the present research study proposes the scope of research on these aspects in the Indian context.

**(10) Purchase Intention :** Earlier research studies defined purchase intention as the subjective judgment by the consumers that is reflected after the general assessment to buy a product or service (Blackwell, Miniard, & Engel, 2001 ; Dodds, Monroe, & Grewal, 1991 ; Shao, Baker, & Wagner, 2004). Purchase intention continues to be an important predictor of consumer actual purchase behaviour (Ajzen, 1991 ; Gardner & Hausenblas, 2004). It was observed in a research study in Malaysia (Ling, 2013) that environmental attitudes and self-efficacy are the major factors that drive towards purchase intention. However, health issues are more important than environmental



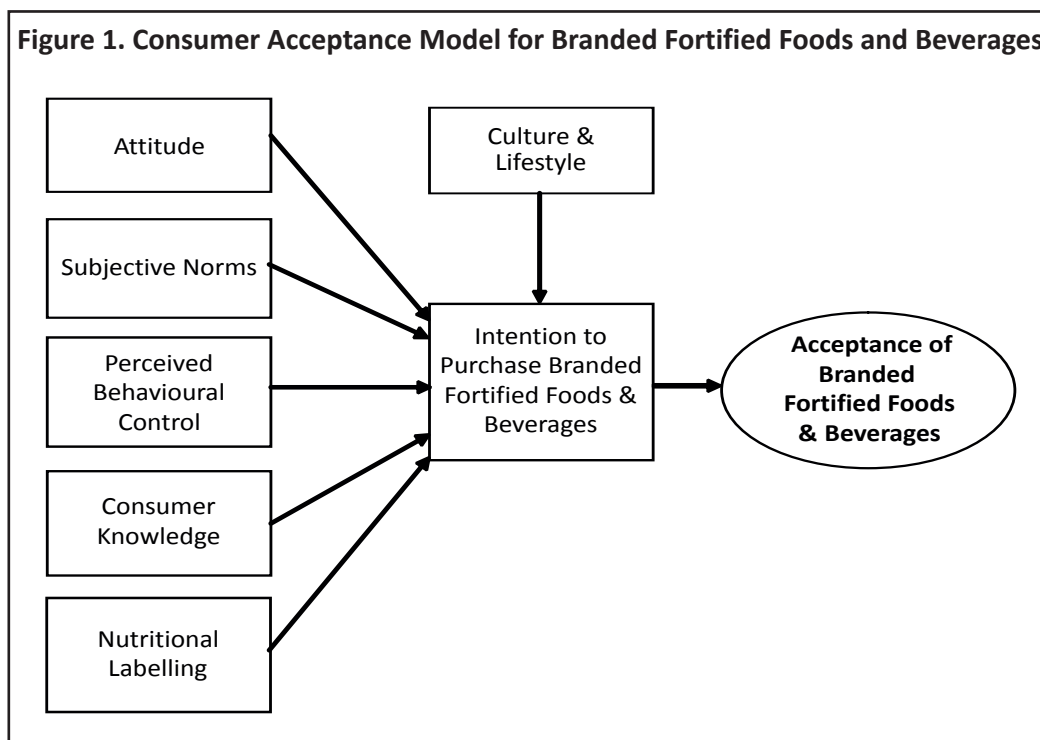
issues to the Indian consumers (Yadav & Pathak, 2016). Hence, it is clear that the factors motivating Indian consumer behaviour is different from others. Ghosh (1990) stated that purchase intention can be used as an effective tool in predicting the purchase process. An earlier study in organic food consumption revealed that purchase intention has a substantial effect on the actual purchase behavior (Wee, Ariff, Zakuan, Tajudin, Ismail, & Ishak, 2014). In light of the above research conclusions, it is proposed that :

➤ **Proposition 7** : Purchase intention is significantly related to consumer acceptance of branded fortified foods and beverages.

## Conceptual Framework

The effectiveness of entire marketing strategies basically depends on how a marketer is going to comprehend the target consumers and possibly the most challenging concept in marketing deals with developing an accurate model to predict consumer behaviour in real life situations. The present study proposes a unified FFB acceptance model for the Indian FFB market on the basis of extensive review of literature (Figure 1).

It is proposed that consumer culture and lifestyle attributes will directly influence consumer purchase intention. Further, attitude will lead to intention to purchase branded fortified foods and beverages. Moreover, the study assumes that purchase intention is largely influenced by consumer's culture and lifestyle attributes. Further, the study suggests that subjective norms and PBC of an individual have a significant impact on promoting purchase intention. Finally, the study results in the integration of consumer knowledge and nutritional labelling constructs in the conceptual model to get a better prediction of consumer purchase intention towards branded FFBs. Further, the proposed model tries to incorporate the purchase intention leading to the acceptance of FFBs. The proposed conceptual framework gives a clear understanding of the different factors contributing towards consumer acceptance.



## Research Implications

Fortified food market is a lucrative consumer market around the globe as consumers now increasingly prefer healthy diets as a part of their lifestyles, particularly in emerging markets like India, and are moving their demand toward branded FFBs (PwC - FICCI, 2013). Nutrition marketing has the potential to influence consumer purchase decision, which leads to a change in consumption patterns (Colby, Johnson, Scheett, & Hoverson, 2010). The commercial advertisement and marketing of healthy food and beverages has a strong influence on the eating habits of consumers. The present study provides an addition to the marketing literature related to fortified food products and provides an insight towards its various determinants on the acceptance of branded FFBs.

Given the promising significance of the FFBs market in India, it remains imperative for the fortified food industry and health food marketers to understand the contributing factors of consumer acceptance towards branded FFBs to decipher what is vital to the Indian health-food consumers. Hence, the proposed model can be a direction to the fortified food industry to fragment and position their offerings effectively to mould a healthy generation. The research study can be beneficial for the marketing executives to craft suitable marketing strategies to reach the desired audience with the most suitable products at appropriate time and place. Further, the conceptual paper may provide an insight to the regulatory bodies to make and implement the required nutritional policies and programmes to prevent malnutrition and occurrence of lifestyle diseases. Additionally, the outcome emanated from the research study could be efficiently applied to improve the nutritional status of the people.

## Limitations of the Study

The study is limited to a conceptual understanding of consumer acceptance of branded FFBs in the Indian context. The outcome of the study is not based on the empirical investigation of the study variables. The consumer acceptance model proposed in the study was purely grounded on the review of past literature.

## Scope for Further Research

The present study is the initial one which has incorporated culture and lifestyle attributes, consumer knowledge, and nutritional labelling factors with the TPB model in order to predict consumer acceptance towards FFBs in the Indian context. The conceptual model developed in the study is based on the review of earlier research studies. Hence, the proposed model needs to be empirically tested and validated to prove the proposed propositions. Future research can shed light on the impact of various other contributing factors like consumer health consciousness, perceived value, etc. on consumer acceptance process with regards to branded FFBs.

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