



BUYING BEHAVIOUR & MINDSET OF CONSUMERS REGARDING DIETARY PRODUCTS

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ABSTRACT

The world and its population are facing a serious problem of obesity, hypertension, high blood pressure problems which are specially found aggravated in youngsters and middle-aged individuals as per a report by world health organization. One of the causes of existence of these problems is because of significant change in diet habits, physical activity levels, and tobacco use worldwide. But still there is no significant increase in the use of dietary or functional products. In the wake of ever-changing environment, concern regarding obesity and other health issues has increased nowadays among people which should have resulted in increase in the consumption of dietary products but the studies show that there is a very little change in the demand of functional foods. Thus, the study focuses on finding out the factors affecting the purchase of dietary products and the current mind set of the consumers with respect to the dietary products. This study aims at increasing the understanding of the buying behaviour of people with respect to the dietary choices and purchase of dietary products.

This quantitative study was conducted on 207 respondents following descriptive research design using a structured questionnaire. The data so obtained is analysed using ANOVA testing in order to test the significance variation between the buying behaviour. The study brings out the fact that there is no significant variation in consumers' buying behaviour over different age group whereas significance variation in buying behaviour was shown over gender as males prefer to purchase dietary products more frequently than that of the female respondents.

Keywords: Dietary products, Functional food, Buying behaviour, Diet, Healthy food, Health.

INTRODUCTION

Dietary products can be beneficial for one's health. There are numerous ingredients involved in these products such as herbs, vitamins, amino acids, minerals to name a few. The current lifestyle includes more junk food than the healthy food which can cause serious illness such as blood pressure and heart related problems. So including dietary products in daily food habits is a good option to keep up with the health. Nutraceuticals products may also be classified as dietary supplements as they include vitamins and minerals. Literature suggests that the Indian dietary market will grow from \$4 Billion to \$18 Billion till

2025. Among many, the brands that supply dietary products in India are Amway, Patanjali and Saffola. There are many types of digestive biscuits, protein shakes, protein bars, diet chips and various other kinds of dietary products available in market but consumption of these products depend on the preference, choice and liking of the consumers. The consumer buying behaviour is affected by lot of factors including price, taste, choice, intention and ingredient. Like some people who are health conscious and regularly using gyms will prefer to buy protein shakes and protein bars while others will prefer to munch on protein bars and diet chips on hunger pangs.

This study aims at finding the consumers' buying behaviour of these different types of dietary products and studies the variation over age group and gender of consumers.

LITERATURE REVIEW

Among all, one study from Turkey says that functional food consumption is higher among single people and lower among educated people. Higher consumption levels among single people may be resulting from the need to compensate nutritional deficiency with functional food consumption and lower consumption levels among educated people may be related to the belief that functional food is unnatural (Bekoglu, Ergen & BurcuIncie, 2016). While certain individuals are befuddled because of the uncertainty of what functional food items are and that customers see items that are good for their health (such as cereals, protein rich products, yoghurt and juice) as nutrition rich factors of functional food (Annunziata & Vecchio, 2011). This study suggests significant differences between groups of consumers in terms of marketing strategies. It is notable that although many functional foods require regular use to provide health benefits, substantial numbers of consumers only occasionally eat the items. It means people are curious about trying out new items that are sold with health claims, but they decide not to take such foods into their diets for various reasons (Niva, 2006). Furthermore, the findings regarding the experiences of functional foods suggest that people do not necessarily think that the health effects would or ought to be experienced immediately on a body level. Although healthy eating is typically a primary concern for women, elderly and those in good economic positions, the results showed that the importance of these

factors differed with the adoption of functional foods (Niva, 2006).

In recent years an increase of fast-food consumption has increased in all over world. 80% of American have a fast-food restaurant within every 800 meters. In USA 30% of children and teenagers are having fast food consumption in a day which might be harmful for the teenagers in the long run (Sikora, Teresa & Szymanski, 2007). A study on students indicates that there is absence of a clear link between the nutrition knowledge awareness and healthy eating behaviours. It was also found that the students who knew breakfast is the most important meal of the day were not necessarily those who ate breakfast every day and students who were aware that dietary products are rich in calcium and that the main function of dietary products is to build strong teeth and bones were not necessarily those drinking at least one glass of milk (Wang, Shi, Chang, Stewart, 2014). Although nutrition knowledge awareness is not always correlated to the specific related eating behaviour but target populations' nutrition knowledge awareness matters. Evidence suggests that adolescents and their families are less likely to incorporate numerous lifestyle changes all at once and that more targeted knowledge is effective in causing changes in eating behaviours.

A study by James, Naughton, & Petroczi in 2010 suggested that instead of solely prohibitive approach for anti-doping regulations sports tournament should allow and promote functional food for athletes. This can be an alternative mean to approach illegal doping as well as increase the consumption of the natural functional food as well without harming the health of the consumers (James, Naughton, & Petroczi, 2010). While giving an overview about functional food a study by Kaur & Das in

2011 concluded that functional food can be defined as any healthy food having physiological benefit. This can be a raw one or produced by generic modification, trial feeding or processed food (Kaur, & Das, 2011). A review of the literature by Liisa Lähteenmäki in 2005 shows that many longitudinal works on the nutrition label has been performed over the past twenty years in relation to the decision-making process for consumer purchases. The degree to which the definition of a nutrition label has been described and used in food product purchase decision studies tends to vary (Lähteenmäki, 2005). In fact, it has not been made clear the role of the nutritional label in the decision to buy food products. Nutritional label on the products affect buying behaviour and helps consumers in selecting products based on their nutritional intake and requirement (Azman, & Sahak, 2014).

The most important factor in increasing use of dietary products is awareness and knowledge about it as it will increase consumption of functional food. Older adults are very motivated to understand functional food because of their care for their health. Also, food label is a primary source of information for functional food. With respect to health claims as a source of information for functional foods, various studies reported that consumers found nutrient content, nutrient function and disease risk reduction claims to be informative (Vella, Stratton, Sheeshka, & Duncan, 2014). Eventually, various stakeholders, including health professionals and the food industry, can use this knowledge to further educate older adults about the health benefits of eating healthy foods related to ageing.

There has been a rise in consumption of organic food and dietary

products. But the consumers' attitude towards organic food has raised concerns regarding the safety and quality of the organic foods and that is why the dietary products provider companies have started ensuring that the products available to consumers should be of good quality and healthy (Tung & Shih-Jui, 2007). The relationship between functional food intake and age is mainly dependent on the type of functional food. Cholesterol-lowering margarines are used more frequently in the older age categories, whereas an inverse relation exists between age and the use of probiotics. Research concerning characterization of the functional food consumers has been limited to sociodemographic and attitudinal indicators (Mullie, Guelinckx & Clarys, 2009). Literature also suggests that method of calculating market share of selling fruits and vegetables which showed the mistake in calculating market share based on the quantity of purchase every day and not based on the frequency of customers buying regularly (Anesbury, Greenacre, Wilson, & Huang, 2018).

An article in 2013 highlighted after studying all the laws, regulations, definition about functional foods around different countries and compared that with the Malaysia and concluded that there is a serious lack of knowledge among the people especially of Asian countries. People need to be educated about the benefits of health and usage of the functional food which is the responsibility of both government as well as the seller (Lau, Chan, Tan, & Kwek, 2013). A research based on gender differences in long term effects of a nutritional intervention program of Mediterranean diet it was found that the program leads to more beneficial changes in long term dietary intakes in men than in women also

improvements in metabolism was seen in men candidates (Leblanc, Begin, Hudon, Royer, Lemieux, 2014). In terms of tea, it was found that tea consumption was strongly related to cultural background. The consumption of red wine was positively associated with both socioeconomic indicator's education and income (Degrave, Hulens & Vansant, 2009). Food purchasing behaviour of consumers in most emerging economies such as India has significantly changed due to an increase in the per capita disposable income, global interaction, information and communication technologies, urbanization, education and health awareness, movement of households towards higher income groups, changes in lifestyle and family structure (Ali, Sanjeev & Janakiraman, 2010).

Majority of papers have highlighted that there is an increase in the consumption of fast-food worldwide and people are not fully aware about the dietary products and functional food. Also, some significant age factors were also revealed in the review of literature as elders are found to be more driven towards dietary products in order to stay healthy.

OBJECTIVES OF RESEARCH

This research mainly focuses on the variables which affects the buying behaviour of consumers regarding dietary products, as there is very little research available on consumer mindset and behaviour. The three main objectives of this research are:

1. To examine the dietary products already there in the market.
2. To study the impact of gender and age group on the purchase decision of dietary products.
3. To examine the products that have affected the consumer market.

RESEARCH METHODOLOGY

The research paper expresses the issues as it exists and so demonstrates the use of descriptive research method of study. The sample size of 207 was taken for data collection by taking level of significance 5%. For data collection a structured questionnaire was designed, which consisted of 16 questions which were multiple choice relating to all different factors. The data collection followed convenience sampling method. The study has three parameters which is age, gender, & price of the products. The questions were framed and asked keeping in mind these parameters. Each question asked directly or indirectly related to one of the parameters.

Hypothesis:

The objective of the study is to get an idea about the mindset of the people and to study factors affecting their behaviour of buying dietary products. Age of purchaser, price of the product as well as gender can affect the buying behaviour of the consumer so this study has 3 hypothesis based on the same:

H₀₁: There is no significant variation between consumers' buying behavior of dietary products over age.

H₀₂: There is no significant variation between consumers' buying behavior of dietary products over gender.

H₀₃: There is no significant variation between consumers' buying behavior of dietary products over price.

The data has been collected from 207 respondents out of which 122 were males and remaining 85 are female respondents. Majority of the respondents were from age

group of 18-25 years of age. The respondents were majorly students or having service as their occupation. The questions used to know and understand the factors affecting the buying behaviour as well as mindset of consumers were related to consumers' awareness, their attitude towards dietary products and how frequently they purchase those products. To

get knowledge about consumers' mindset there were 5 other questions that they had to answer.

Analytical Procedure

The survey was taken from 207 respondents asking about various behavioural questions related to buying of dietary products. The results are as follows:

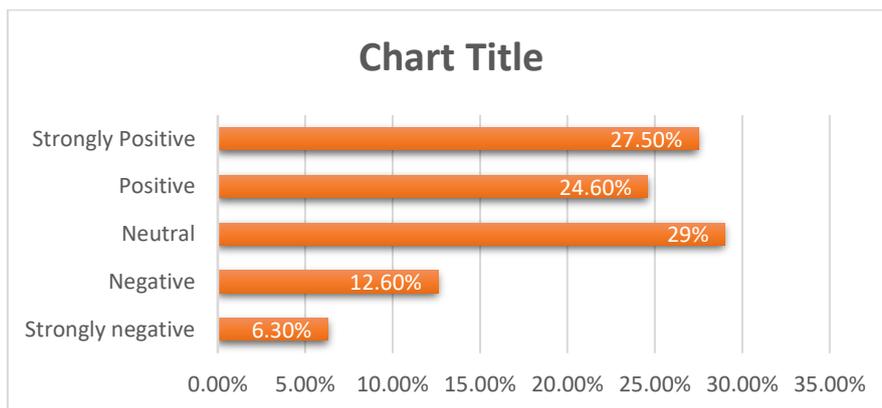


Figure 1 Attitude towards Dietary Products

The above graph shows that around 52% of the respondents show a positive attitude towards buying of dietary products while 8% respondents show negative attitude towards dietary products indicating people are not very conscious about their food intake.

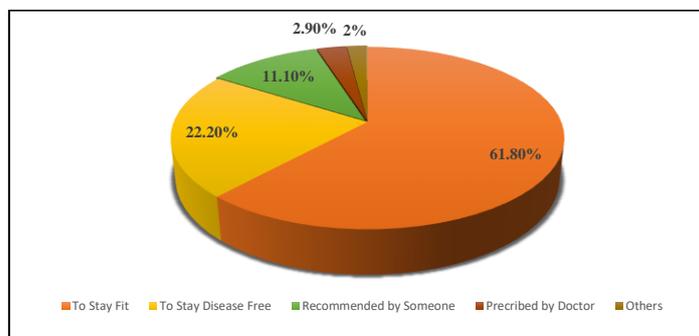


Figure 2 Reason behind Buying Dietary Products

The above graph shows that around 62% respondents prefer to buy dietary products as they want to stay fit and other 22% people buy it to live a disease free life.

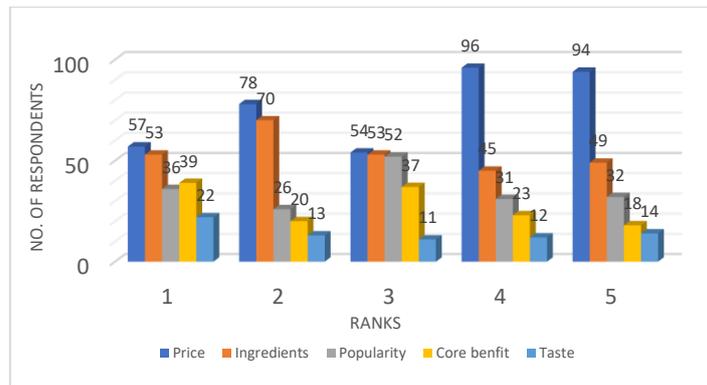


Figure 3 Factors affecting Buying Behaviour

The above graph shows that respondents have ranked price and ingredients of the product as 1st, meaning the most affecting factor affecting the buying behaviour of costumers are price and ingredient of the product.

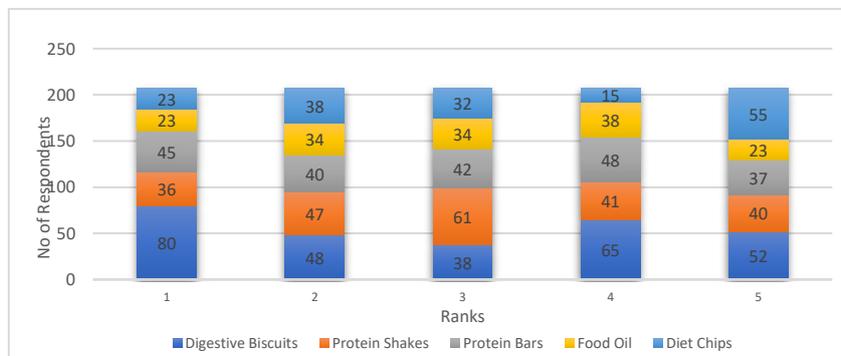


Figure 4 Ranking of Different Dietary Product as per Respondent's Preference

The above graph shows that 80 out of 207 respondents have chosen Digestive biscuits as their preferred dietary product, where 55 respondents have chosen diet chips as he least preferred product.

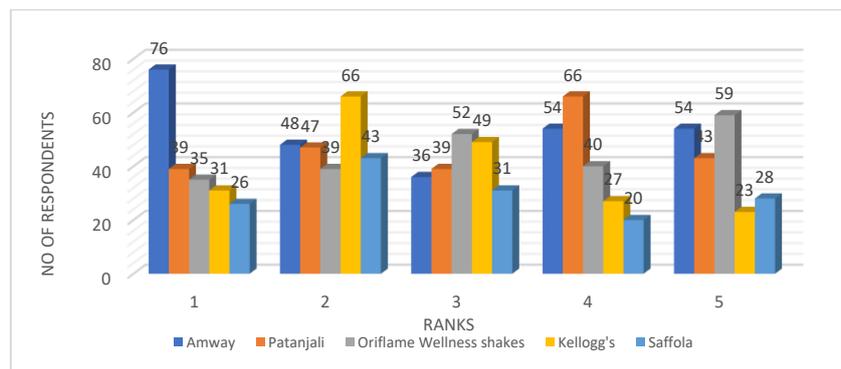


Figure 5 Ranks of Well-Known Dietary Products Brands as per Respondent's Preference

The above graph shows that majority of respondents have chosen Amway as their 1st preference where as Oriflame as the least preferred brand.

Hypothesis testing:

The first hypothesis taken for this study is:

H₀₁: There is no significant variation between consumers' buying behaviour of dietary products over age. Anova single factor testing was applied to test this hypothesis.

Table 1 Anova Testing Between Age and Buying Behaviour

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Age Group	207	340	1.642512	1.104592		
Do you purchase Dietary products?	207	319	1.541063	0.249519		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.065217	1	1.065217	1.573309	0.210438	3.8641282
Within Groups	278.9469	412	0.677055			
Total	280.0121	413				

Here from the above table, we can see that F value is less than F critical, and p-value is more than alpha value. Hence, the null hypothesis will be accepted implying that there is no significant variation between consumers' buying behaviour of dietary products over age.

The second hypothesis taken for this study is:

There is no significant variation between consumers' buying behaviour of dietary products over gender. Anova single factor testing was applied to test this hypothesis.

Table 2 Anova between Gender and Consumer Buying Behaviour

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Gender	205	291	1.419512	0.254519		
Consumer buying behavior	205	317	1.546341	0.249067		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.64878	1	1.64878	6.548148	0.010859	3.864351
Within Groups	102.7317	408	0.251793			
Total	104.3805	409				
Within Groups	103.6715	412	0.25163			
Total	105.3043	413				

In the above ANOVA test output, the F value is more than F critical, and p-value is less than alpha value. Hence the alternative hypothesis is accepted. Thus, this means that there is significant variation between consumers' buying behaviour of dietary products over gender. The graphical understanding below analyses the gender differences in buying behaviour.

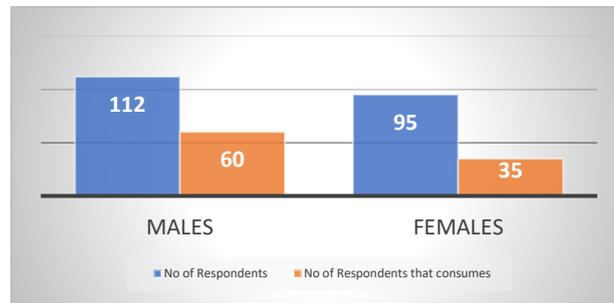


Figure 6 Classification of People Consuming Dietary Product on the Basis Of Gender.

The graph above shows total number of respondents on the basis of gender and the number of respondents that actually consumes dietary product. The data shows that more than 50-55% of the male respondents consumes the product whereas only 30-35% of female respondent's consumers' dietary products.

The third hypothesis taken for this study is:

Ho3: There is no significant variation between consumers' buying behaviour of dietary products over price. Anova single factor testing was applied to test this hypothesis.

Table 3 Anova between price and consumer buying behaviour

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Price	207	407	1.966184	0.790113		
Consumer buying behavior	207	319	1.541063	0.249519		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	18.70531	1	18.70531	35.98448	4.36E-09	3.864128
Within Groups	214.1643	412	0.519816			
Total	232.8696	413				

In the above ANOVA test output, the F value is more than F critical value, and p-value is greater than alpha value. Hence, the null hypothesis will be accepted. Thus, no significant variation between consumers' buying behaviour of dietary products over price.

CONCLUSION

To conclude our study which has specifically focused on the purchasing

behaviour of people in terms of dietary products in India. Dietary products are purchased and consumed by all age groups. We found out that the intake of dietary products is more in men than women, the reason could be that females are less aware about the dietary products in comparison to men. Findings suggest that because there is increase in the disposable incomes of people, the price of the dietary products is a

not a factor affecting its consumption and people are ready to pay a higher amount in order to use dietary products. Data also concludes that there are fewer regular users in young generations than that of people having age of 46 and above. The reason for this could be that students or the younger generation doesn't know the consequences of eating too much junk food because their body might not have reacted to it yet. Also, money could be the step back as they might not be earning. While ranking the factors affecting buying decision for dietary product most of the respondents are strongly agreed with core benefit. Brand also plays a major role in dietary products and most people prefer to purchase Amway products. The most popular item of dietary product are digestive biscuits, the reason being that people have liked the taste of biscuits better than protein bars or shakes. The 18-25 age group says that the reason for taking dietary products is to stay fit. The factor of age doesn't affect the buying behaviour of consumers as the data collected and analysed shows the same.

Most of the respondents chose to rate their diet as neutral, so most respondents are not a daily consumer, nor are they serious about their wellbeing and still enjoying junk foods. The brands supplying dietary products has huge potential in the coming years if they spread more awareness in the market because only a few respondents rated that it is necessary for them to eat healthy which shows that there is a lack of awareness among people regarding the importance of consumption of dietary products.

REFERENCES

1. Ali, J., Kapoor, S., & Moorthy, J. (2010). Buying behaviour of consumers for food products in an emerging economy. *British Food Journal*.
2. Anesbury, Z., Greenacre, L., Wilson, A. L., & Huang, A. (2018). Patterns of fruit and vegetable buying behaviour in the United States and India. *International Journal of Market Research*, 60(1), 14-31.
3. Annunziata, A., & Vecchio, R. (2011). Factors affecting Italian consumer attitudes toward functional foods.
4. Azman, N., & Sahak, S. Z. (2014). Nutritional label and consumer buying decision: a preliminary review. *Procedia-Social and Behavioral Sciences*, 130, 490-498.
5. Bekoglu, F. B., Ergen, A., & Inci, B. (2016). The impact of attitude, Consumer innovativeness and interpersonal influence on functional food consumption. *International Business Research*, 9(4), 79-87.
6. James, R., Naughton, D. P., & Petróczi, A. (2010). Promoting functional foods as acceptable alternatives to doping: potential for information-based social marketing approach. *Journal of the International Society of Sports Nutrition*, 7(1), 37.
7. Kaur, S., & Das, M. (2011). Functional foods: an overview. *Food Science and Biotechnology*, 20(4), 861.
8. Lähteenmäki, L., Lyly, M., & Urala, N. (2007). Consumer attitudes towards functional foods. *Understanding consumers of food products*, 412, 427.
9. Lau, T. C., Chan, M. W., Tan, H. P., & Kwek, C. L. (2013). Functional

- food: a growing trend among the health conscious. *Asian Social Science*, 9(1), 198.
10. Leblanc, V., Bégin, C., Hudon, A. M., Royer, M. M., Corneau, L., Dodin, S., & Lemieux, S. (2014). Gender differences in the long-term effects of a nutritional intervention program promoting the Mediterranean diet: changes in dietary intakes, eating behaviors, anthropometric and metabolic variables. *Nutrition journal*, 13(1), 107.
 11. Mullie, P., Guelinckx, I., Clarys, P., Degraeve, E., Hulens, M., & Vansant, G. (2009). Cultural, socioeconomic and nutritional determinants of functional food consumption patterns. *European journal of clinical nutrition*, 63(11), 1290-1296.
 12. Niva, M. (2006). Can we predict who adopts health-promoting foods? Users of functional foods in Finland. *Scandinavian Journal of Food and Nutrition*, 50(1), 13-24.
 13. Sikora, E., Leszczynska, T., & Szymanski, P. (2007). Share of fast-food products in dietary behaviour of young people. *Polish journal of food and nutrition sciences*, 57(3), 373-379.
 14. Tung, S. J. (2007). Interrelationships between consumers' attitudes, behaviour toward organic food and dietary habits.
 15. Vella, M. N., Stratton, L. M., Sheeshka, J., & Duncan, A. M. (2014). Functional food awareness and perceptions in relation to information sources in older adults. *Nutrition journal*, 13(1), 44.
 16. Wang, D., Shi, Y., Chang, C., Stewart, D., Ji, Y., Wang, Y., & Harris, N. (2014). Knowledge, attitudes and behaviour regarding nutrition and dietary intake of seventh-grade students in rural areas of Mi Yun County, Beijing, China. *Environmental health and preventive medicine*, 19(3), 179.