The Pharma Innovation

Unnati Saini
Student MBA (Agri -Business),
Department of Agricultural
Economics, Sam Higginbottom
University of Agriculture
Technology and Sciences,
Prayagraj, Uttar Pradesh, India

Dr. Sanjay Kumar
Assistant Professor, Department
of Agricultural Economics, Sam
Higginbottom University of
Agriculture Technology and
Sciences, Prayagraj,
Uttar Pradesh, India

Vikas Singh
Research Scholar, Department of
Agricultural Economics, Sam
Higginbottom University of
Agriculture Technology and
Sciences, Prayagraj,
Uttar Pradesh, India

Corresponding Author:
Unnati Saini
Student MBA (Agri -Business),
Department of Agricultural
Economics, Sam Higginbottom
University of Agriculture
Technology and Sciences,
Prayagraj, Uttar Pradesh, India

Consumer attitude and adoption towards frozen food (Green pea and sweet corn) in district Lucknow, Uttar Pradesh

Unnati Saini, Dr. Sanjay Kumar and Vikas Singh

Abstract
The ready meals category in India compounded to an annual growth rate of 13.7% between 2003 to 2008, accounting for a share of 60.3% in the India. This growth has been fuelled by the increasing availability of freezer space in modern retail shops, increased penetration of organised retail, significant increase in the size of this nascent category and increasing availability of these products in the market, apart from the changing lifestyles and eating habits. The study entitled "Consumer Behaviour for Frozen Foods products was taken up with the prospect trends observed in the changing Indian lifestyles, dietetic intake plans, and the necessity for convenience in Lucknow district of Uttar Pradesh. Majority of the respondents prefer the kind of frozen food products, (72%) of respondents consume sweet corn, whereas (28%) of respondents consume green pea. During the study it was observed that majority of the respondents (58%) prefer green pea and (42%) sweet corn in the Eldeco region, (69%) of respondents prefer green pea and (31%) prefer sweet corn in the Ashiyana region, (54%) of respondents prefer green pea and (46%) sweet corn in the Alambagh region, (83%) of respondents prefer green pea and (83%) prefer sweet corn in the LDA Colony region, (75%) of respondents prefer green pea and (25%) prefer sweet corn in the Hind nagar (I) region has highest share in the market for frozen food products in lucknow.

Keywords: Consumer attitude and adoption, frozen food, market share

1. Introduction
Food had been the basic need for human beings. The food habits of human being evolved over ages and accordingly the preference, the way of processing, cooking and consumption patterns get transformed steadily over the centuries across the globe. As a part of steady transformation, demand for food in frozen conditions started growing during the past few decades in the developed countries and recently in the developing countries. Frozen foods have the advantage of being very close in taste and quality to fresh foods as compared with other preserved or processed foods. Frozen foods are ubiquitous in westerns upper markets, and are increasingly a part of the food industries worldwide including India. Fruits and vegetables are usually frozen within hours of being picked, and when thawed, they are very close to fresh in taste and texture.

Consumer attitude and adoption towards frozen food has always been an area for the research, as it is diverse, dynamic and is affected by a number of factors. India, in this situation is no special case. It is being a country of assorted societies and conventions, understanding the consumer purchasing design turn into a hard task. This is a major reason behind firms using a various methods and instruments to scale the perception of consumers. This not only enables the marketers to understand the present perception of consumers for their products, but also to design and predict future. This brings the real challenge before the firms, consumer satisfaction without compromising their profits. Consumer attitude explains about consumers as what they purchase, why they purchase, when they get it, where they get it, how regularly they get it, how frequently they utilize it, how they assess it after the buy and the effect of such assessments on future buys, and how they discard it.

Based on sales channel, the market is segmented into retailers, food service providers, and export. In terms of revenue, the export segment dominated the market, accounting for 44.62% of the overall revenue in 2020. The food service business was severely impacted due to COVID-19 in 2020, and the second and third quarter of 2021. Retailers is the fastest-growing segment because the demand for green pea, sweet corn and other frozen food products such as French fries, burgers, and chicken snacks has picked up amid the pandemic.

The COVID-19 pandemic has positively impacted the frozen food market. However, growth was interrupted during the second wave (April 2021-May 2021). Nonetheless, steady recovery of retailers and food service providers is expected to drive the market during the forecast period. Consumers' adoption towards the processed frozen food products changed positively as these items ensured better sanitization than the foods available from street-side vendors.
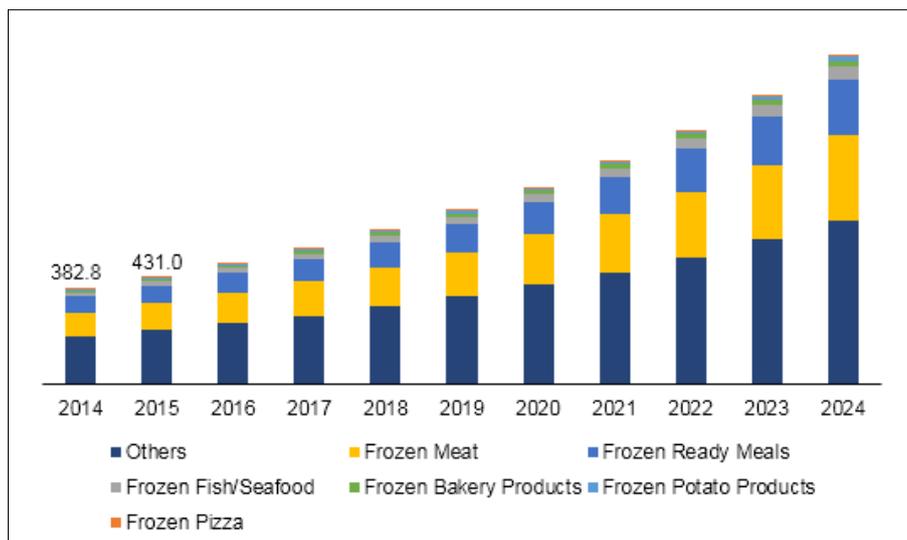

Fig 1: The Indian Frozen Market Share

2. Review of literature

Antara Sen *et al*., (2019) another analysis shows that customers understand the Ready-made foods (RMFF) as nutrient, healthier and delicious. Therefore, they are switching frozen processed food and willing to pay the premium value. In the paper they investigated to understand the foremost moving factors that have an effect on purchasers to get Ready-made food.

Gimenez *et al*., (2019) suvrasub unit, enclosed some factors in his study that influence consumers to require ready-made food (2019), he mentioned the influencing factors like expeditious, safety, easiness to cook, favorability price, brand, tasty, advertising, appearance, quality, availableness & packaging.

Hibić and Poturak., (2016) [6] found there is a high impact of branding on consumer decision making processes and their purchasing decisions.

Jenifer Dlugos (2017) found that frozen vegetables are more nutritious than the fresh foods because it helps retain the nutrient content in the vegetable throughout.

Aamir *et al*., (2019) [7] even though the cost of natural food was lower in those neighborhoods, individuals would tend to shop for frozen foods for the benefit of cookery and handling of the product income is one of the foremost relevant socio-demographic variables that mostly have an effect on consumers' food decisions, suggesting that the look of interventions geared toward dynamical dietary patters ought to take into thought the characteristics of specific target populations.

Patel & Rathod (2017) [8] identified that there are various factors influencing purchase decisions like brand attributes, demographic variables, ethical concerns, food preferences and food choices.

Malhotra & Malhotra (2014) examined how consumer's different tastes influence the consumption of ready to eat packaged food products in India.

Vemuri Veena Prasad (2017) found that there is a requirement for frozen foods that are quick to cook with the increase in the number of working women.

3. Materials and Methods

3.1 Selection of District

Uttar Pradesh has 75 districts, out of which Lucknow district was selected purposively for the study.

Population: 45.90 lakhs

Geographical area (sq. Kms): 3091.40

3.2 Selection of Block

Study was carried out In lucknow district, there are total 8 blocks out of which Sarojni Nagar block was selected purposively, due to high potential area of selling of fruits and vegetables, the consumer were selected who come to the mall (supermarket, retail shop, open market) where high availability and demand of consumers, for the fulfillment of objectives.

3.3 Selection of urban area

A list of total number of urban area was prepared out of which 5% was selected in a Sarojni Nagar block and region are Alambagh, Ashiyana, Hind Nagar (I), LDA Colony and Eldeco I.

Table 1: selection of district, block, region

District	Block	Region	Total no. of population	No. of Respondents
Lucknow	Sarojni Nagar	Alambagh	400	20
		Ashiyana	400	20
		Hind nagar (I)	400	20
		LDA Colony	400	20
		Eldeco I	400	20
		Total	2,000	100

3.4 Selection of Respondents

All details of consumer behaviour were collected from the regular consumer of frozen food. A complete list of 5% consumer was selected randomly.

3.4.1 Analytical tools
To full fill the specific objectives of the study based on the nature and extent of data, the following analytical tools and techniques was adopted.

3.4.2 Chi-square test
There are two types of chi-square tests. Both use the chi-square statistic and distribution for different purposes: A chi-square goodness of fit test determines if sample data matches a population. For more details on this type, see: goodness of fit test. A chi-square test for independence compares two variables in a contingency table to see if they are related. In a more general sense, it tests to see whether distributions of categorical variables differ from each another.

3.5 Results and Discussion
3.5.1 To study the socio economic profile of respondents using frozen food (green pea and sweet corn)
3.5.1.1 Age of consumers who buy frozen food
The majority of respondents (79%) belonged to middle age group of 18-25 years, a considerable portion of respondents (16%) belonged to 25-34%. There was a small portion of respondents (5%) belonged to age group years of 34-44 years who purchase frozen food products.

Table 2: Age of consumers

S.No	Age Group	No. of respondents	Percentage
1	18 – 25 yrs	79	79%
2	25 – 34 yrs	16	16%
3	34 – 44yrs	5	5%
4	44 & above yrs	0	Nil
	Total	100	100

Note: Every respondents of sample is an frozen food consumer

3.5.1.2 Annual income of consumers
The majority of the respondents (62%) have below 3,00,000 income, (28%) of respondents have 3,00,000 – 5,00,000 income, (9%) of respondents have 5,00,000-9,00,000 income and very small (1%) of respondents have above 9,00,000 income as shown in the figure 2 below.

Table 3: Annual income of consumers

S.No	Annual Income	Respondents	Percentage
1	3,00,000	62	62%
2	3,00,000 -5,00,000	28	28%
3	5,00,000 -9,00,000	9	9%
4	Above 9,00,000	1	1%
	Total	100	100%

3.5.1.3 Kind of Frozen Food Products Consumers Prefer While Purchasing
The majority of the respondents prefer the kind of frozen food products (72%) of respondents consume sweet corn, where as (28%) of respondents consume green pea as shown in the fig. 3 below.
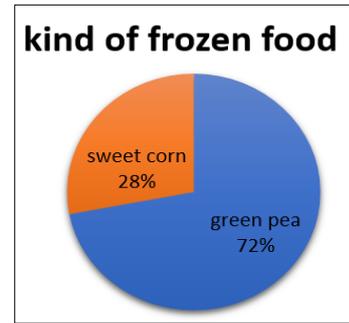

Fig 2: Kind of frozen food products

3.5.1.4 Buying Behaviour of Frozen Food Products by the Consumers
The majority of the respondents (42%) buy sometimes of frozen food products, where (38%) of respondents buy rarely of frozen food products, less (14%) of respondents buy often frozen food products, least (06%) of respondents never buy frozen food products as shown in the fig. 3.
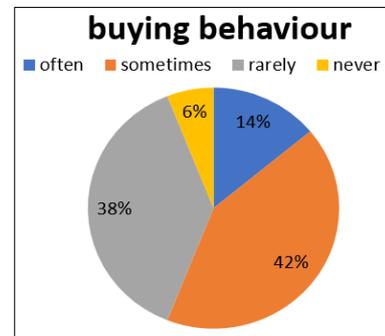

Fig 3: Buying behaviour of frozen food

3.5.2 Type of advertisement enhance by the consumers while purchasing frozen food products
The majority of the respondents (58%) enhance social media type of advertisement while shopping for frozen food products, where (30%) of respondents enhance television type of advertisement while shopping for frozen food products, less (8%) of respondents enhance newspaper type of advertisement while shopping for frozen food products and least (4%) of respondents enhance pamphlet type of advertisement while shopping for frozen food products as shown in the fig. 4 below.
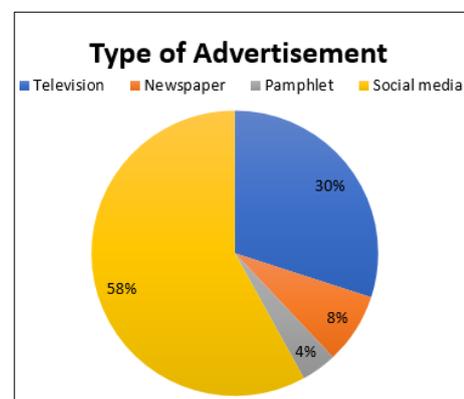

Fig 4: Type of advertisement

3.5.3 Different Brands of Frozen Food Prefer By the Consumers In The Market

The majority of the respondents (62%) of respondents prefer green pea and (38%) of respondents prefer sweet corn in Sahu fresh brand, whereas, (61%) of respondents prefer green pea and (39%) of respondents prefer sweet corn in Naturefest frozen food brand, whereas, (73%) of respondents prefer green pea and (27%) of respondents prefer sweet corn in green farm brand, (81%) of respondents prefer green pea and (19%) of respondents prefer sweet corn in haldiram brand, (33%) of respondents prefer green pea and (67%) sweet corn in McCain frozen food products as shown in fig. below.
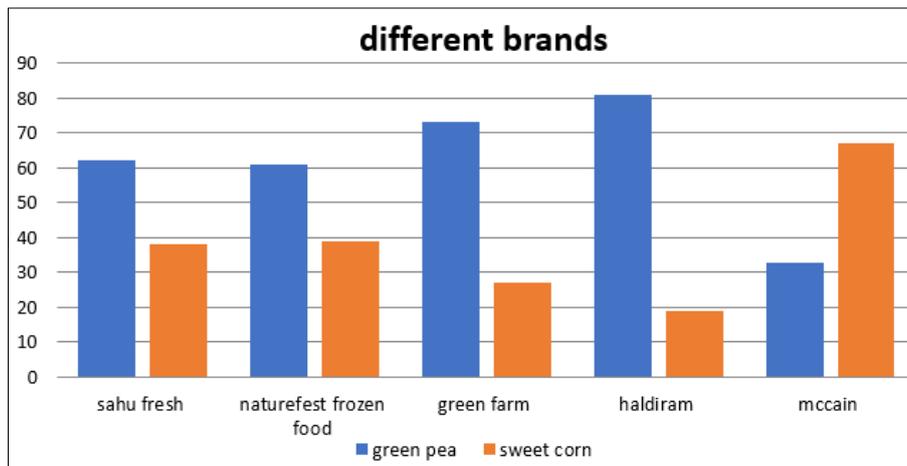

Fig 5: Different brands of frozen food

3.5.4 Market share of frozen food in the market area

The majority of the respondents (58%) prefer green pea and (42%) sweet corn in the Eldeco region, (69%) of respondents prefer green pea and (31%) prefer sweet corn in the Ashiyana region, (54%) of respondents prefer green pea and (46%) sweet corn in the Alambagh region, (83%) of respondents prefer green pea and (83%) prefer sweet corn in the LDA Colony region, (75%) of respondents prefer green pea and (25%) prefer sweet corn in the Hind nagar (I) region has highest share in the market for frozen food products given in fig. 6 below.

Table 4: Market share of frozen food

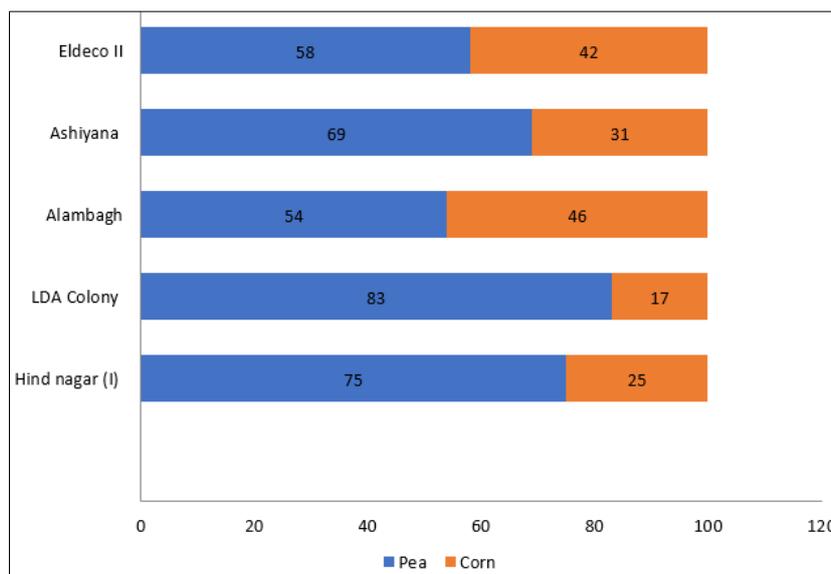| Region	Pea	Corn	Total	Percentage
Hind nagar (I)	75	25	100	100
LDA Colony	83	17	100	100
Alambagh	54	46	100	100
Ashiyana	69	31	100	100
Eldeco II	58	42	100	100

Fig 6: Market share of frozen food

4. Conclusion

With changing human needs and urbanization, it is necessary to bring value in agriculture through food processing in which frozen products will be seen as a key component in ensuring profitability by creating time and place utility. With increase in social mobility the demand for readymade products is

increasing day by day working individuals are mostly dependent on frozen food and with growth in number of working women, there is need of such frozen foods which can save time. The rising working population is finding frozen food affordable and more suitable to their needs and are hence more drawn towards it.

The preference of frozen food is towards Taste and brand in Lucknow. Most of People in Lucknow likes to eat green pea and the most favored brand and local brand for frozen foods is Green farm, followed by Naturefest frozen food, Haldiram and Mc Cain. The main factor of buying frozen foods in Lucknow is Time saving followed by convenient and taste. To sum up the market for perishable foods is growing at a very fast rate and being agriculture based nation India can be its leader. The share of frozen products in total food market is estimated to grow exponentially with rich Middle East countries as the prime importers with the second highest producer of fruits and vegetables India will be one of the key players in the frozen food market and the shore of frozen foods in export is bound to increase.

5. References

1. Food processing and processed food /frozen food market (market research report) /published Jan 2022: region – global https://www.fortunebusinessinsights.com/frozen-food-market-104138
2. Frozen Food Market Value in India Poised Triple by 2017. [online] Available from http://www.frozenfoodsbiz.com/428-frozen-food-market-value-in-india poised-triple-by-2017 (accessed on 29th Apr 2015).
3. Patel D, Rathod R. Ready-to-eat food perception, food preferences and food choice-a theoretical discussion. Worldwide Journal of Multidisciplinary Research and Development. 2017;3(8):198-205.
4. Prasad, Vemuri Veena. n.d. Consumer Attitudes Towards The Acceptance And Usage Of Ready-To-Eat Food Products Among The Working Women In The City Of Mumbai (Bhandup Area), Journal of Advances in Business Administration. http://www.jadbm.com/latest-articles.php?at_id=180.
5. Dlugos, Jenifer. n.d. How Healthy Are Frozen Vegetables? https://www.livestrong.com/article/348271-how-healthy-are-frozen-vegetables/
6. Hibić S, Poturak M. Impact of a Brand on Consumer Decision-making Process. European Journal of Economic Studies. 2016(3):405-14.
7. Lu X, Stepanov P, Yang W, Xie M, Aamir MA, Das I, et al. Superconductors, orbital magnets and correlated states in magic-angle bilayer graphene. Nature. 2019 Oct;574(7780):653-7.
8. Mori NM, Patel P, Sheth NR, Rathod LV, Ashara KC. Fabrication and characterization of film-forming voriconazole transdermal spray for the treatment of fungal infection. Bulletin of Faculty of Pharmacy, Cairo University. 2017 Jun 1;55(1):41-51.