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## Protein supplements market insights: Understanding trends, Consumer preference and growth potential

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### Abstract

The study aims to investigate the market size of different protein supplements and thereby understanding the trends. This paper highlights the growing popularity of protein supplements, especially among athletes. The section further presents the market research to estimate the Indian protein supplement market and identify the current trends going on in protein market. Additionally, it mentions the arise of alternative protein sources like Perfect Day's animal-free dairy protein and provides examples of protein content in various food items. Also results of field work projects that Optimum nutrition and dymatize are the popular brands in whey protein market based on its availability at stores and consumption by gym enthusiasts. In plant protein market, Oziva seems to be popular among the customers. It also reveals the improvements or enhancements consumer are seeking when it comes to plant based proteins. Overall, this market research provides valuable insights for industry stakeholders to traverse the competitive landscape, emerging opportunities and meeting consumer demands.

**Keywords:** Protein, powders, Flavors, Pea, Whey

### 1. Introduction

Protein is considered as an essential nutrient in human diet as it secures growth in infancy, supports muscle and bone metabolism, maintenance and development of nervous system. Protein supplements are considered as "Sports food". People who are not able to take appropriate nutrients in their day-to-day life need to fulfill their nutritional requirements by dietary supplementations. These protein supplements are consumed by athletes, especially adolescent males in order to gain muscle strength, muscle recovery and as energy source. Nowadays, protein supplements are available in different forms such as ready to drink powders, protein bars, pills, premade shakes and all other food stuffs. According to ICMR, the Recommended Dietary Allowance (RDA) for Indians is given as, 0.8 to 1 gm protein per kg body weight per day and as per NIN, the RDA for indians is given as 0.83 gm protein per kg body weight per day<sup>[1]</sup> is sufficient to meet the basic nutritional requirements. Research indicates that overconsumption of protein can cause stress on kidneys. Also, it can lead to reduce level of calcium in bones resulting into osteoporosis<sup>[2]</sup>. Considering the over increase demand for protein supplements a market research was conducted to estimate the total market of protein supplements in India and landscaping the latest trends in protein market. Thorough study of protein powders and its consumption pattern was observed through survey.

In the recent years, few sports supplements have undergone a sustained and remarkable ascent comparable to whey protein<sup>[3]</sup>. The rapid expansion of the global sports supplements market can be attributed to various factors such as heightened consumer health awareness, advancements in the food industry technology, forecasts concerning an aging population, and escalating healthcare expenses<sup>[4, 5, 6]</sup>. Sports supplements are conventionally utilized by athletes to optimize training outcomes and accelerate bodily recovery. There is common preception that makes constitute the primary demographic of sports supplements users<sup>[7]</sup>. The India Protein Market size is estimated at USD 1.40 billion in 2024, and is expected to reach USD 1.88 billion by 2029, growing at a CAGR of 6.07% during the forecast period (2024-2029). In 2019, about 37% of population was taking supplements for their skin and beauty advantages.

Immense availability of vegan protein sources, and low price of soy, wheat, pea, leads to the development of plant protein supplements with highest value share [8].

As humans are seeking for an alternative for whey proteins, Perfect Day has come-up with animal free dairy protein concept where they are creating premium quality of whey protein without use of cows. These protein are manufactured by process of fermentation by using bioreactors at controlled pH and temperature. The genes in dairy animals responsible for whey protein production are combined with genes of microflora and identical whey proteins are produce. Perfect Day has included this protein in many of their products such as ice-cream, cakes, protein supplements, etc. Also, MyProtein is a sourcing this protein supplements from Perfect Day [9].

**Sources of food items and protein content in them per serving**

Meat and meat products are on the highest rank in percent protein contribution in food sources whereas grains holds 2<sup>nd</sup> position [10].

Food sources	Protein (g) per 100g	Source
Ragi	7.3	[11]
Brown rice	7.25	USDA [12]
Pea	8.34	USDA [12]
Soy flour	51.1	USDA [12]

**2. Methodology**

The objective of the study was to analyze the trends and consumer behaviour pattern of protein supplements. Online and Offline survey was conducted to determine the demand and consumption of protein supplements. To obtain a good amount of data total ten stores, ten chain of pharmacies and ten gyms were selected which were situated in Mumbai. Microsoft forms were used to create electronic survey forms.

**3. Results and Discussion**

**3.1 Protein Stores**

Whey is the major type of protein about 87.4% getting sold in market whereas plant protein holds second position acquiring about 11.1%. People of age group 26-45 years were seen visiting more to protein stores. There were many brands of protein powders available at stores like GNC, Iso-Pure, Muscle Blaze, Optimum Nutrition, Dymatize, etc out of which Optimum nutrition and Dymatize are the most popular brand among the people visiting protein stores. The least popular brands are One Science and Avvatar. Store managers were asked about the price range which is more appealing to customers so, the average price range which is appealing to customers was 2,000-3,000 Rs. The customers spend approximately 6,000 to 7,000 Rs on protein supplements per month. Stores located in regions like Bandra and Andheri west, people spend upto 10,000 to 12,000 Rs on protein powders. Some stores give discount upto 15-20% on protein supplements which vary according to brands.

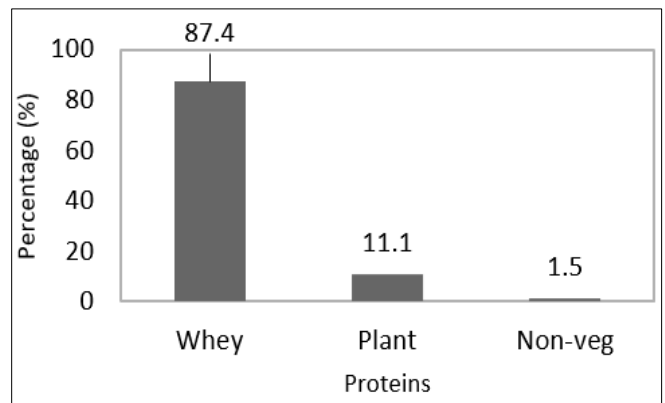


Fig 1: Types of protein supplements getting sold in Indian market

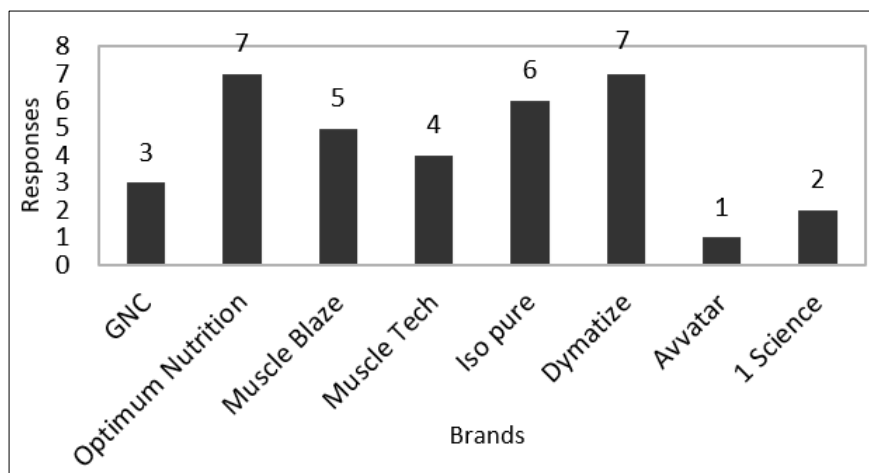


Fig 2: Popular Brands of protein supplements getting sold in market

**3.2 Chain of pharmacies**

Whey is the major type of protein getting sold in the market from pharmacies. After whey, plant protein holds 2<sup>nd</sup> position contributing 34.5% in total protein supplements. Population mostly of 26-35 years visit to pharmacies for purchasing protein supplements. Muscle Blaze is the popular brand among the customers visiting pharmacies. 1500 is the price range which is more appealing to people also upto 6000 is the montly expenditure on protein

supplements. It was observed that in areas such as Bandra people spend up to 10,000-15,000 on protein supplements. Also, we can see people prefer to buy plant protein supplements from pharmacies. Pharmacies such as Apollo and Zeno Health have offers like Buy 2 get 1 free and on an average discount of 20% is offered in pharmacies. Discounts on protein supplements vary according to brands. Oziva, B protin, Pediasure, etc are the other brands available at pharmacies.

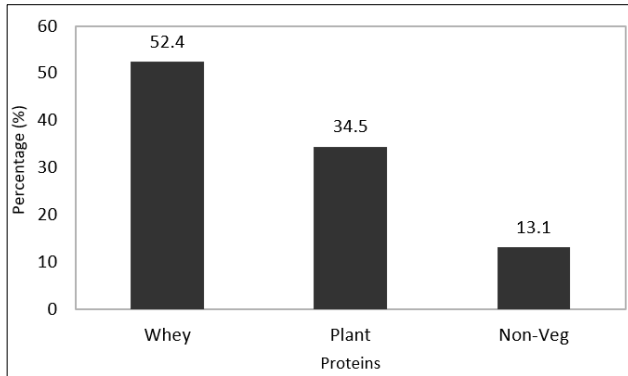


Fig 3: Types of protein supplements getting sold in pharmacies

### 3.3 Gyms

Responses were collected from trainers and people visiting gyms about the protein powder trends being popular in market. 80% of the trainers consume protein powders in order to maintain muscle building along with work-out. When trainers were asked about the concern expressed by clients about the protein supplements then they shared that 50% of clients often asked about the ingredients or quality of protein supplements or powders available in market. The trainers mostly prefer Whey protein Isolate to clients based on their body requirements and fitness goal client want to achieve. Whey protein isolate is recommended due to its fast digesting property. 20-30% recommend whey protein concentrate and rest of the trainers prefer whey blend for clients. Trainers suggest clients to consume protein through diet and if protein requirements are not fulfilled they suggest taking protein supplements. Due to the fast lifestyle, people are not able to consume the protein required for muscle building hence they prefer taking protein supplements. Some of the trainers use machines to check the nutritional parameters in the body and as per nutritional data obtained, they suggest protein supplements. InBody 370s is the machine used to analyze the nutritional composition of the body. There are no such side effects of supplements but sometimes bloating is observed. Overdose of protein can lead to gut issues like diarrhea. Optimum Nutrition, Muscle Tech and Muscle blaze are the brands mostly recommended to clients by trainers. Other brands include Myprotein, QNT, Ronnie Coleman, Total Nutrition, Rule 1.

Also responses of people visiting gyms were analyzed and it was found that 79-80% people consume protein supplements whereas 20-21% people do not consume protein supplements. The people not consuming protein supplements were asked for reason so majority of them answered its expensive. Some people targets on fitness and not muscle building hence they don't consume protein supplements. Majority of people consume protein supplements regularly and the main goal of buying protein supplements is muscle building and fitness. Muscle blaze is the brand most popular brand among people visiting gym. Other brands include Muscle Tech, Eugenics nutrition, Optimum nutrition, Myprotein. Chocolate flavor is most accepted flavor in protein supplements. After chocolate, it is seen that some people like to have mango flavor. Majority of people purchase protein supplements from online mode due to the discounts being offered. 4000 to 5000 is the average expenditure per month on protein supplements.

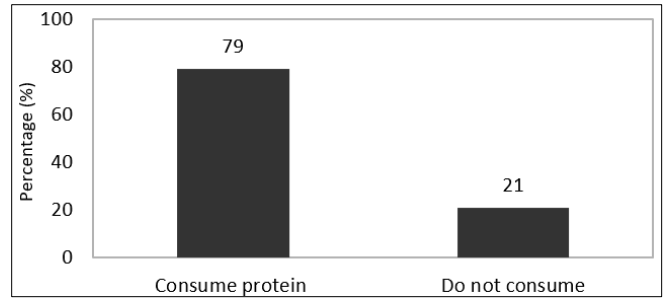


Fig 4: Consumption of protein supplements in Gyms

### 3.4 An electronic survey on plant-based proteins

An electronic survey was conducted to understand the awareness and consumption of plant-based proteins. Total 130 responses were collected. From total 130 people, it was found that 55% people are Vegetarian, 42% are Omnivore and 3% people are Vegan.

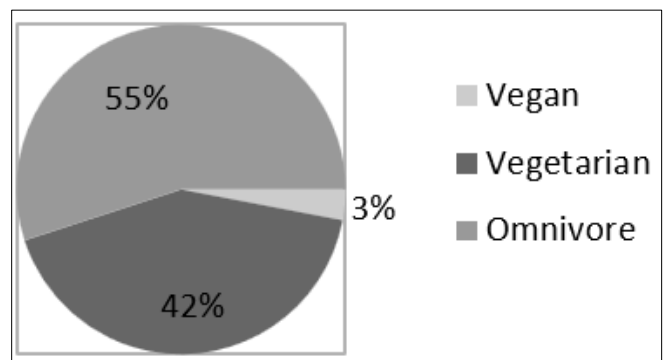


Fig 5: Dietary preference of people

17% people consume protein supplements as per the survey and 83% people do not consume protein supplements.

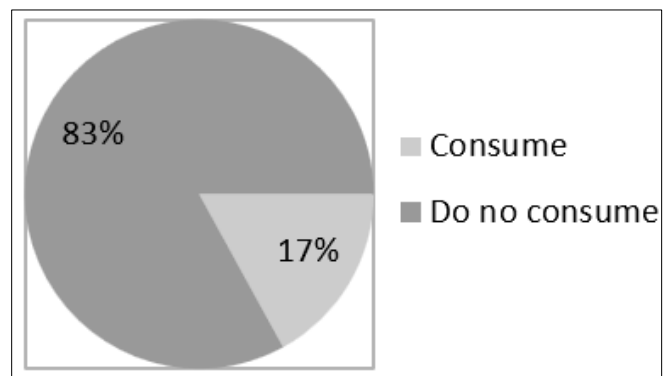
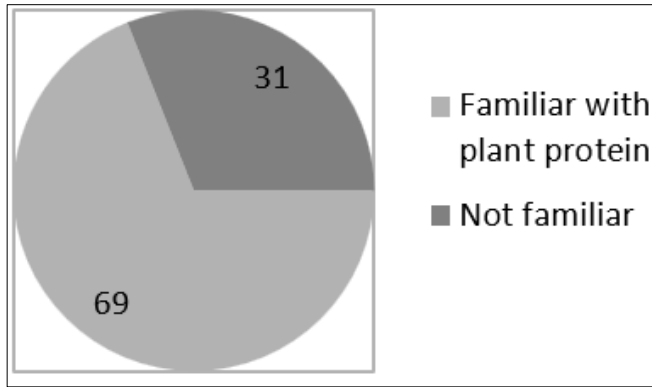


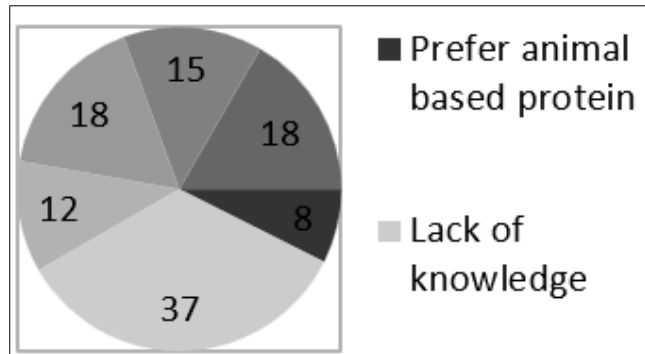
Fig 6: Consumption of plant protein supplements

### Responses of people not consuming protein supplements (83%)

There are 69% people familiar with plant-based proteins are familiar with animal based protein. The primary reason people has not tried plant-based protein supplements is lack of knowledge. The other reasons included that they consume protein from natural diet and they did not feel any additional requirement. Some people has given reason as they are suffering from disease such as gout hence they are not consuming supplements. Also some of them has responded that plant-based proteins are not locally available.

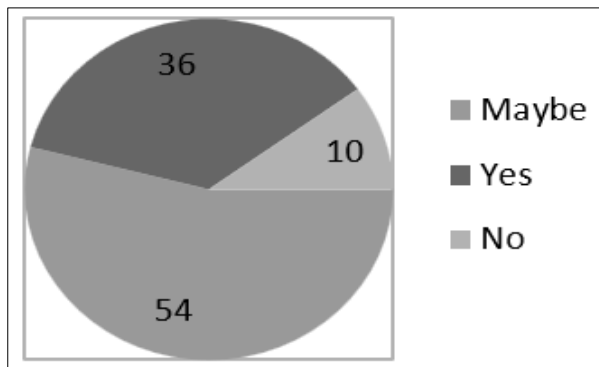


**Fig 7:** Awareness about plant-based protein supplements



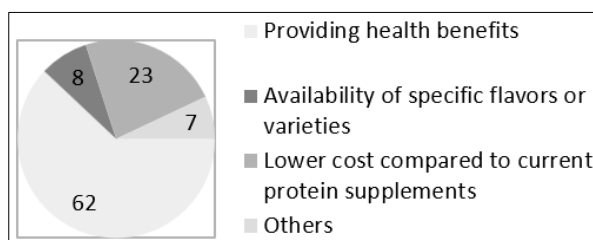
**Fig 8:** Reasons people not consuming plant-based protein supplements

When people were asked about the intake of protein supplements in future, 54% people replied maybe they will try, 36% people will surely try plant-based protein supplements and 10% people are not interested to try supplements.



**Fig 9:** Intake of plant-based protein supplements in future

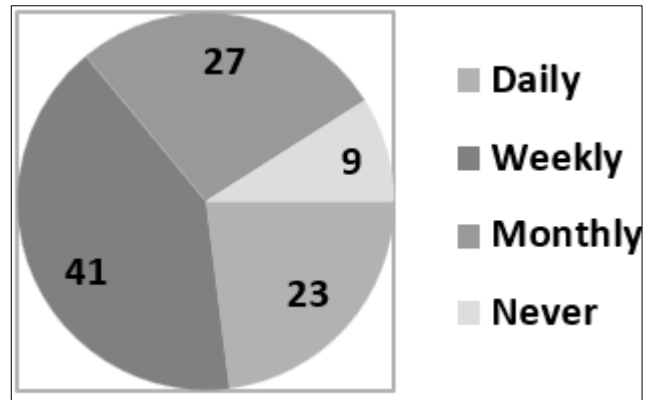
Supplements providing health benefits is the primary reason people will like to have plant-based protein supplements whereas low cost is the second-most reason.



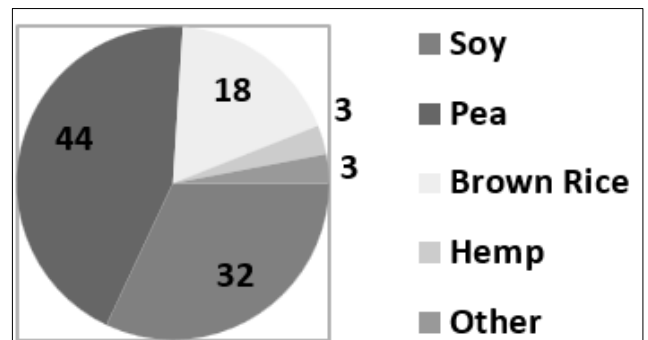
**Fig 10:** Factors that would make consumers more likely to have supplements

**Responses of people consuming plant-based protein supplements (17%)**

41% of the people consume supplements in weekly manner. Whereas 27% people consume monthly and 23% people consume daily. Fitness goal is the main factor appealing people to have plant-based supplements. Pea and soy are on the higher ranks people prefer when it comes to plant-based supplements. After these sources, people are seeking for brown rice protein. Oziva is the most popular brand among the people consuming plant-based protein supplements. Other brands include Optimum nutrition, GNC, Tata gofit, Nature Zen, Fast And Up, Nakpro, Green Protein, Cosmix, Scitron, Myfitness, Nutrabay, Fortune, Myprotein, Amway. 50% of the people spend average 1000-1500 Rs on proteins.



**Fig 11:** Frequency of consuming supplements



**Fig 12:** Sources of plant-based protein supplements

**4. Conclusion**

Our market research on protein supplements clarifies the diverse and dynamic landscape of protein supplements. Protein supplements are mainly used for muscle building and fitness goals. As the demand for protein supplements continues to spike, understanding the market and preference of consumers will provide valuable insights for business players to perceive competitive landscape, emerging opportunities and meeting consumer demands. Consumers are seeking for different flavors in plant protein hence development or enhancing flavor can increase the demand for plant protein as well.

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