Krishi Netra

Enhancing Agricultural products: The power of Value Addition

Manchala Gayatri*1 and Gugulothu Sumitra2
[1]M.Sc. Department of Agricultural Economics, [2]Ph.D. (Agronomy), Department of Agronomy, University of Agricultural Sciences, Dharwad, Karnataka-580005
Corresponding author: manchalagayatri@gmail.com

Manuscript No: KN-V2-03/001

Abstract

Value addition in each aspect of agricultural produce creates more quality and adequate demand for the products.In fiscal year 2022, the crops sector had a GVA share of 55.33 percent in the overall agriculture and allied sector in India.The share of the agriculture & allied sector in total GVA is improved to 20.2 per cent in the year 2020-21 and 18.8 per cent in 2021-22. The post-harvest losses in cereals is 3.89-5.92 percent, in pulses 5.65-6.74, in fruits and vegetables is 6.02-15.05 and 4.87-11.61 respectively. Value addition contributes to the prevention of post-harvest losses, industrialization, the creation of jobs, exports, longer produce availability, foreign exchange earnings, product diversification, simple marketing, and other factors. The 'doubling the agricultural income' goal can be significantly aided by the agro-processing industry. Because processed foods have a very high income elasticity, their consumption rises in tandem with rising incomes. Since our nation has currently risen to lower middle-income level among all nations, processed foods will inevitably become a larger portion of the diets of our people. India is expected to become the world's food factory by achieving more development through value addition and a major increase in the level of agro processing.

Key words: Post-harvest losses, Value addition, GVA, Agro processing, Income

Introduction

In the field of agriculture, there are several steps in the process from farm to table, and each one has a distinct role in the larger scheme of food production. Yet, amidst the cultivation, harvesting, and distribution processes lies a pivotal opportunity often overlooked: value addition. Value addition in agriculture, illuminating its capacity to elevate raw commodities into products of enhanced worth, both economically and nutritionally. Value addition, at its core, involves the strategic enhancement of agricultural products through various processes and methods. This not only enhances their marketability but also opens avenues for diversification, innovation and sustainability within the agricultural sector.

Value addition is the process of achieving a high price for a primary product at the same volume through processing, packing, improving quality, or other methods. One of the key elements of nutritional security is value addition. Because of their excess production, farmers can receive a lower price for a certain agricultural product. Getting farmers paid a fair price for their agricultural products is currently the biggest issue. These problems can be solved by the value addition in different crops produce and can be marketed over the nation.

Value addition Techniques

1. Food Processing: It involves converting raw agricultural products into various processed foods. Methods including canning, freezing, dehydrating, fermenting, and juicing are employed to maintain the goods, enhance their taste, and increase their shelf life. For example, Vegetables can be pickled or frozen for convenience, while fruits can be processed into jams, sauces, and fruit leather.

2. Packaging and Branding: Effective packaging and branding play a pivotal role in adding value to agricultural products. Attractive and informative packaging not only protects the product but also influences consumer purchasing decisions. A product's distinct identity is created by proper labeling and branding, which makes it stand out in the marketplace.

3. Grading and Sorting: Grading and sorting involve categorizing agricultural products based on size,

quality, and appearance. This ensures uniformity and consistency, enabling farmers to command higher prices for higher-grade produce. Additionally, grading and sorting support client preferences and particular market requirements.

4. Preservation Techniques: Preservation techniques are essential for extending the shelf life of perishable agricultural products. These techniques include cold storage, refrigeration,controlled atmosphere storage, and modified atmosphere packaging. Preservation guarantees that items will be available all year long and helps to minimize post-harvest losses.

5. Organic and Specialty Certification: Agricultural products that have organic or specialty certifications boost value and draw in niche consumers who appreciate distinctive and sustainable features. A product that has received organic certification has been produced without the use of dangerous chemicals and in accordance with organic farming methods.

6. Ready-to-Use Products: Transforming raw agricultural products into ready-to-use items saves consumers time and effort in meal preparation. Pre-cut vegetables, pre-marinated meats, and pre-mixed spice are examples of value-added ready-to-use products.

7. Secondary Processing: Secondary processing involves further processing agricultural products to create new products or extracts. Grain can be ground into flour, while fruits can be extracted, concentrated, or used as essential oils in a variety of businesses.

8. Nutritional Enrichment: Adding nutrients or fortifying agricultural products enhances their nutritional profile. For instance, fortified cereal products with added vitamins and minerals address specific nutritional deficiencies.

9. Waste Utilization: Value addition can also involve using agricultural by-products or waste to create new products. For instance, using crop residues to produce biodegradable packaging or bio energy adds value and reduces waste.

10. Quality Control and Standardization: Strict adherence to international quality standards and quality control procedures can provide agricultural products more legitimacy and value, particularly in export markets.

Benefits of value addition

Enhanced Profitability: Value addition turns agricultural commodities from their raw state into processed or value-added goods, which are frequently sold for more money. Farmers and agribusinesses benefit from higher profitability as a result, which improves returns on their investments.

Market Diversification: Farmers can expand their product line by offering value-added goods that appeal to various customer groups and marketplaces. Farmers can increase their consumer base and reach specialized markets by providing a range of processed goods.

Decreased Post-Harvest Losses: By extending the shelf life of agricultural products, value addition methods including processing and preservation assist lower post-harvest losses from spoiling. Both resource conservation and increased food security benefit from this.

Improved Product Quality: Grading, sorting, and processing agricultural products results in enhanced quality

and appearance. This is known as value addition. Higher-quality goods draw in more customers and enhance the brand's reputation.

job Generation: Value addition methods often require more labor, which raises the job prospects in rural regions. This helps to enhance livelihoods and reduce poverty.

Branding and Market Positioning: Value added products with unique attributes and packaging create a distinct brand identity. Effective branding and marketing strategies help establish a competitive market position and build customer loyalty.

Nutritional Enrichment: Value addition techniques can enhance the nutritional content of agricultural products. For instance, fortification with vitamins and minerals in processed foods improves their nutritional value, contributing to better public health.

Waste Utilization: Value addition can involve using agricultural by-products or waste to create new products, reducing waste and promoting sustainable practices.

Economic Growth: The value addition sector contributes significantly to the economy by generating higher revenue, creating employment, and boosting agricultural exports.

Food Safety and Standardization- Value addition often involves stringent quality control measures and adherence to international standards. This ensures that the products are fit for consumption and meet the quality requirements of both domestic and international markets.

Export Potential- Value-added agricultural products have better export potential due to their higher quality and longer shelf life. They can access premium markets and contribute to foreign exchange earnings.

Rural Development- Value addition in agriculture encourages rural development by promoting agribusiness and agro-processing activities. This diversification of economic activities contributes to the overall development of rural communities.

Schemes supporting value addition in agricultural products

The Ministry of food processing industries is actively implementing three major schemes to promote the food processing sector:

1)Pradhan Mantri Kisan Sampada Yojana (PMKSY):

The PMKSY had seven component schemes, they are

(i) Mega Food Parks
(ii) Integrated Cold Chain and Value Addition Infrastructure
(iii) Infrastructure for Agro-Processing Clusters
(iv) Creation of Backward and Forward Linkages
(v) Creation/Expansion of Food Processing & Preservation Capacities
(vi) Food Safety and Quality Assurance Infrastructure and
(vii) Human Resources and Institutions.

2) Pradhan Mantri Formalization of Micro Food Processing Enterprises (PMFME) scheme: The objective of the Aatmanirbhar Bharat Abhiyan is to formalize the food processing industry and increase the competitiveness of currently operating individual microenterprises in the unorganized sector. The programme, which would cost a total of Rupees 10,000 crore, will be implemented over five years, from 2020–2021 to

2024–2025. The program is specifically designed to assist groups that process agri-food, including Producers Cooperatives, Farmer Producer Organizations, and Self Help Groups (SHGs), throughout their whole value chain.

3) Production Linked Incentive (PLI) Scheme: With an allocation of Rs. 10,900 crores, the Union Cabinet approved the Production Linked Incentive Scheme for Food Processing Industry (PLISFPI) on March 31, 2021, with plans to begin operations in 2026–2027. It is composed of three parts: encouraging the production of food goods in the four main food product categories; providing help for the branding and international marketing of Indian brands; and promoting the innovative and organic products of SMEs. Apart from that, the PLI Scheme for Millet-based Products (PLISMBP) was introduced in FY 2022–2023 with a layout of □800 crore, using the savings from PLISFPI. Through encouraging the development of strong Indian brands, boosting the visibility of Indian food brands on the international market, and aiding food manufacturing companies who are eager to increase their processing capacity, the program increases the capacity of the food processing industry. It creates more employment , opportunities and ensures higher income to farmers.

4) Operation Greens:A new initiative called "Operation Greens" for the integrated development of the tomato, onion, and potato (TOP) crops value chain was also announced in the 2018–19 budget. As a new vertical of PMKSY, the scheme has been introduced. In order to encourage value addition in these perishables, the government has further announced that the "Operation Greens scheme" expanding to 22 perishable goods from tomatoes, onions, and potatoes (TOP) in the budget speech for 2021–2022. These 22 perishables, which include beans, carrots, cauliflower, pineapple, mango, banana, and apple, have been identified by the ministry.

Conclusions

Reducing post-harvest losses, finding ways to boost agricultural incomes, fighting poverty and hunger, raising living standards, and ensuring food security are all important topics these days. It can be accomplished through agro processing, which requires infrastructure and technology to support the idea of agricultural goods being valued added in order to boost productivity, develop new products, and enhance post-harvest handling practices that support agricultural sustainability. Value-added seeks to improve capacity building, boost commerce, make the commodity more accessible, offer off-farm employment options, and create a road out of poverty. Farmers need to be made aware of value addition and programs that can help them quadruple their revenue.

References

Hinai, A., Jayasuriya, H., Pathare, P.B. and Shukaili, T., 2022. Present status and prospects of value addition industry for agricultural produce – A review. Open Agriculture, 7(1):207-216.
https://mazeros.com
https://pmfme.mofpi.gov.in
https://www.earlytimes.in
https://www.pib.gov.in
https://www.statista.com