

A Case study on Naturals Agro Private Limited, Pune in Maharashtra State

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Abstract

Background: India ranks third in the production of dried fruits and vegetables. The industry is largely decentralized and India has a large number of small-scale units having small capacities up to 250 tons per annum. The commercial production of processed fruits and vegetables is very low in India, contributing only to around 2.2 percent of the total food production. During off season the price rises considerably high, hence the processing of vegetables will save the interest of producer as well as consumer and will also create employment opportunities.

Dehydrated fruits and vegetables projects are a new product of value addition series where the shelf life is increased & space for storage is reduced along with easy transportation. Demand for fruits and vegetables are prevalent across length and breadth of the country throughout the year. However, due to specific climatic requirements availability/supply of most of these crops is seasonal. So, preservation through dehydration technique can play an important role.

Objectives: The research outlook was studied with following points.

- 1) To study the procurement management of selected fruits and vegetables for dehydration.
- 2) To find out the problems in procurement and processing of selected fruits and vegetables.

Methodology: The scope of the study is limited to Procurement Management and problems faced during procurement and processing by the Naturals Agro Private Limited Company. The present study was conducted on Naturals Agro Private Limited based on primary data.

Result: The study says that problems faced in procurement of fruits and vegetables by the company were due to high prices of raw material in case of sudden demand of products. Unavailability of uniform quality of raw material in bulk. The company has not followed the procurement policy with regard to adoption of contract farming with the vegetable producers.

Keywords: Dehydration, Procurement Management, Processing Management, Shelf life.

INTRODUCTION

India has over 92 million small holdings or nearly 21% of the world's small holdings of 450 million, the second largest after China. Agriculture is the mainstay of the economy and the main source of livelihood for about 58 per cent of India's population. During Indian independence the sector played a major role in the Gross Domestic Product of India.

The fruit and vegetable processing industry play an important role in processing of agricultural products. The food processing sector is critical to India's development.

It establishes vital linkages and synergy between industry and agriculture, the two pillars of the economy. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life standards of people across the country, especially in rural areas. Vegetables are rich source of vitamins.

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Consumption of these items provides taste, palatability, increases appetite and helps in digestion and prevents constipation. As per dietician, daily requirement of vegetables is 75-125 gm of green leafy vegetables, 85 gm of other vegetables and 85 gm of roots and tubers with other food. Consumption of vegetables can prevent esophageal, stomach, pancreatic, bladder and cervical cancers.

India ranks third in the production of dried fruits and vegetables. The industry is largely decentralized and India has a large number of small-scale units having small capacities up to 250 tons per annum. The commercial production of processed fruits and vegetables is very low in India, contributing only to around 2.2 percent of the total food production. During off season the price rises considerably high, hence the processing of vegetables will save the interest of producer as well as consumer and will also create employment opportunities.

Dehydrated fruits and vegetables projects are a new product of value addition series where the shelf life is increased & space for storage is reduced along with easy transportation. Demand for fruits and vegetables are prevalent across length and breadth of the country throughout the year. However, due to specific climatic requirements availability/supply of most of these crops is seasonal. So, preservation through dehydration technique can play an important role.

Objectives Of Study

- 1) To study the procurement management of selected fruits and vegetables for dehydration.
- 2) To find out the problems in procurement and processing of selected fruits and vegetables.

METHOD

The scope of the study is limited to Procurement Management and problems faced during procurement and processing by the Naturals Agro Private Limited Company. The present study was conducted on Naturals Agro Private Limited based on primary data.

The primary data were collected through a well-designed questionnaire by taking actual interview of the owner and the workers (5) (Pune District).

RESULT AND DISCUSSION

Procurement means acquiring goods from an outside source. It is acquisition of goods at the best possible minimum cost with the right quantity and quality at the right time and at right place from the right source for the direct benefit or use of cooperation or individuals.

The flow chart of procurement process adopted by company is given in Figure no. 3.1

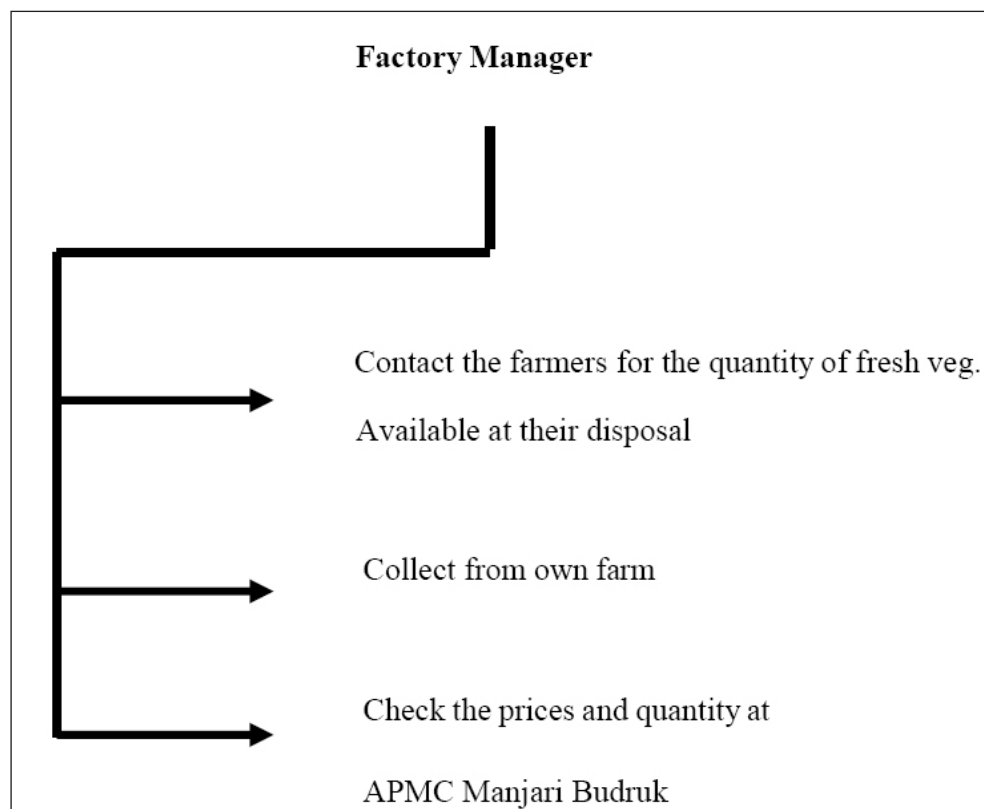


Figure 3.1 Procurement process of selected fresh vegetables

To Study The Procurement Management Of Selected Fruits And Vegetables For Dehydration.

Procurement Of Fresh Jamun In Kg And Prices At Different Time Period In (2021-22)

The data of total procurement of fresh jamun made by the company was collected and given below

Table 3.1 *Procurement prices of Jamun at different time period*

Sr. No.	Month	Procurement (Kg)	Price (Kg)	Total Price (Rs.)
1	June	402	100	40,200
2	July	564	80	45,120
Total		966	180	85,320

The Table 3.1 provides the information about the quantity of fresh Jamun procured 402 kg, and 564 kg in the month of June and July with the price Rs.100 and Rs. 80 per kg respectively.

Procurement Of Fresh Ambadi In Kg And Prices At Different Time Period In (2021-22)

The data of total procurement of fresh Ambadi made by the company was collected and given below

Table 3.2 *Procurement prices at different time period of Fresh Ambadi*

Sr. No.	Month	Procurement (Kg)/Rs.20	Total Price (Rs.)
1.	Aug.	192	3,840
2.	Sept.	165	3,300
3.	Oct.	138	2,760
4.	Nov.	138	2,760
5.	Dec.	110	2,200
6.	Jan.	165	3,300
7.	Feb.	55	1,100
8.	Mar.	55	1,100
9.	Jun.	192	3,840
10.	Jul.	165	3,300
Total		1375	27,500

The Table 3.2 provides the information about the maximum quantity of fresh Ambadi was procured 192 kg in the month of August and June respectively and minimum quantity was procured 55 kg in the month of February and March.

Procurement of Fresh Moringa Leaves in Kg and prices at different time period in (2021-22)

The data of total procurement of fresh moringa made by the company was collected and given below

Table 3.3. *Procurement prices at different time period of Fresh Moringa Leaves*

Sr. No.	Month	Procurement (Kg) / Rs.30	Total Price (Rs.)
1.	Aug.	262	7,860
2.	Dec	262	7,860
3.	April	210	6,300
Total		734	22,020

The Table 3.3 provides the information about the quantity of fresh Moringa procured 262 kg, 262 kg, 210 kg with the price of Rs.30 per kg in the month of August, December and April respectively.

Procurement of Fresh Onion in Kg and prices at different time period in (2021-22)

The data of total procurement of fresh onion made by the company was collected and given below

Table 3.4. *Procurement prices at different time period of Fresh Onion*

Sr. No.	Month	Procurement (Kg) / Rs. 5	Total Price (Rs.)
1	Jan	1020	5,100
2	Feb	1020	5,100
3	March	510	2,550
Total		2,550	12,750

The Table 3.4 provides the information about the quantity of fresh onion procured 1020 kg, 1020 kg and 510 kg with the price Rs.5 per kg in the month of January, February and March respectively

Procurement of Fresh Onion in Kg and prices at different time period in (2021-22)

The data of total procurement of fresh onion made by the company was collected and given below

Table 3.5 *Procurement prices at different time period of Fresh Onion*

Sr. No.	Month	Procurement (Kg) / Rs. 5	Total Price (Rs.)
1	Jan	1020	5,100
2	Feb	1020	5,100
3	March	510	2,550
Total		2,550	12,750

The Table 3.5 provides the information about the quantity of fresh onion procured 1020 kg, 1020 kg and 510 kg with the price Rs.5 per kg in the month of January, February and March respectively.

Procurement of Fresh Mango in Kg and prices at different time period in (2021-22)

The data of total procurement of fresh mango made by the company was collected and given below

Table 3.6 *Procurement prices at different time period of Fresh Mango*

Sr.No.	Month	Procurement (Kg)	Price (Kg)	Total Price (Rs.)
1	May	50	500	25,000
2	June	13	350	5,250
Total		50		30,250

Table 3.6 provides the information about the quantity of fresh Mango procured 50 kg and 13 kg with the price Rs.500 for Alphonso and Rs.350 Keshar per kg in the month of May and June respectively.

Problems in procurement and processing of selected fruits and vegetables

Problems during procurement

- Unavailability of uniform quality of raw material in bulk.
- The raw material was not supplied in time by the farmer because of natural calamities and transportation problem.
- Loss of raw material during the transportation.
- Sometimes production is breakdown due to delay in supply of raw material.
- Raw material required for industry was perishable in nature, hence difficulty in maintaining temperature, humidity etc. parameters till processing.
- High prices of raw material in case of sudden demand of products.

Problems during Processing

- Loss in final produce (powder) due to its nature, it gets stuck to the machinery.

- Problems related to electricity supply.
- Sometimes availability of raw material is less due to seasonal production.
- Absenteeism of labour.
- Storage capacity is small for storage of finished products so there was a chance of disturbing quality parameters of final products.
- Procured vegetable should be processed without losing much time so as to reduce the processing cost.

CONCLUSION

- There were wide variations in day to day procurement prices of vegetables and fruits purchased for processing by the company and purchased quantity were of different qualities.
- There was no assurance of availability of required quantity and desired quality of vegetables available at particular market. This led to mismatch of ratio of processing with also quality and price of final produce.
- The company has not followed the procurement policy with regard to adoption of contract farming with the fruits and vegetable producers.
- The company was facing problem in deciding quantities to be processed and of which vegetable due to low

demand in domestic market and also company was not involved in direct export of dehydrated products.

SUGGESTIONS

1. Company should try to procure maximum quantity of fruits and vegetables from farmers under contract farming in order to make fruits and vegetables available at fixed price of desired qualities at the right time whenever required.
2. There is low demand for dehydrated products in domestic market and company is selling dehydrated products to wholesaler at Pune. The company should export the dehydrated products in European and gulf countries in order to earn more profit and minimize the dependency on wholesaler for the sale of finished products.
3. Company should try to use generator or solar panel to solve the electricity problems which causes breakdown during operations.

LITERATURE CITED

1. Akter J, Hassan J, Rahman MM, Biswas MS, Khan HI, Rajib MM, Ahmed MR, Khan MN, Hasan MF. Colour, nutritional composition and antioxidant properties of dehydrated carrot (*Daucus carota* var. *sativus*) using solar drying techniques and pretreatments. *Heliyon*. 2024 Jan 30;10(2).
2. Alam M, Jannat M, Datta N, Hasan MM, Alam A, Zahid MA, Moazzem MS, Molla MM, Biswas M. The influence of microwave-assisted osmotic dehydration in coconut meat preservation technique. *Applied Food Research*. 2024 Dec 1;4(2):100448.
3. Almena A, Goode KR, Bakalis S, Fryer PJ, Lopez-Quiroga E. Optimising food dehydration processes: energy-efficient drum-dryer operation. *Energy Procedia*. 2019 Mar 1;161:174-81.
4. Amedor EN, Sarpong F, Bordoh PK, Boateng EF, Owusu-Kwarteng J. Modelling convectional oven drying characteristics and energy consumption of dehydrated yam (*Dioscorea rotundata*) chips. *Heliyon*. 2024 Jul 30;10(14).
5. Azumah LC, Abu M, Kaburi SA, Lamptey FP. Effect of pre-drying treatments on the quality of solar-dehydrated tomato (*Lycopersicon esculentum* L.) fruits. *Applied Food Research*. 2024 Jun 1;4(1):100422.
6. Dhara J, kumar Saha S, Saha M, Chakraborty R. Study on drying kinetics, antioxidant activity, total bioactive compounds, physicochemical properties and microstructural characteristics of dehydrated star fruits (*Averrhoa carambola*) by different drying methods. *Sustainable Food Technology*. 2023;1(4):590-602.
7. Feng Y, Yu X, Yagoub AE, Xu B, Wu B, Zhang L, Zhou C. Vacuum pretreatment coupled to ultrasound assisted osmotic dehydration as a novel method for garlic slices dehydration. *Ultrasonics sonochemistry*. 2019 Jan 1;50:363-72.
8. García-Serrano P, Brenes-Álvarez M, Romero C, Medina E, García-García P, Brenes M. Physicochemical and microbiological assessment of commercial dehydrated black olives. *Food Control*. 2023 Mar 1;145:109417.
9. Gomes BA, Alexandre AC, de Andrade GA, Zanzini AP, de Barros HE, Costa PA, Boas EV. Recent advances in processing and preservation of minimally processed fruits and vegetables: A review–Part 2: Physical methods and global market outlook. *Food Chemistry Advances*. 2023 Oct 1;2:100304.
10. Gomide AI, Monteiro RL, Laurindo JB. Impact of the power density on the physical properties, starch structure, and acceptability of oil-free potato chips dehydrated by microwave vacuum drying. *LWT*. 2022 Feb 1;155:112917.

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