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Shruthi Gadhe
PhD Scholar, Institute of Agri Business Management, SKRAU, Bikaner, Rajasthan, India

Subramaniya Venkatraman R
MBA (AB), Institute of Agri Business Management, SKRAU, Bikaner, Rajasthan, India

Anees Ajmal MP
PhD Scholar, Institute of Agri Business Management, SKRAU, Bikaner, Rajasthan, India

Manikandan S
PhD Scholar, Institute of Agri Business Management, SKRAU, Bikaner, Rajasthan, India

Correspondence
Shruthi Gadhe
PhD Scholar, Institute of Agri Business Management, SKRAU, Bikaner, Rajasthan, India

Doubling the income of stakeholders by inventory management of mustard oil processing

Shruthi Gadhe, Subramaniya Venkatraman R, Anees Ajmal MP, Manikandan S

Abstract
Oil seed crops play a second important role in the Indian agricultural economy next to food grains in terms of area and production. India is the fifth major mustard producing country and fourth major mustard consuming country in the world. In recent years, mustard consumption has been increasing, leading to increased demand in global as well as domestic markets. Mustard oil is popular as cooking oil in northern India. Rajasthan is India's top Rapeseed & Mustard producing state, followed by Madhya Pradesh and Haryana. Almost half (48.12%) of Rapeseed and Mustard is produced by only Rajasthan. Mustard is popular not only as cooking oil but also it is used in cosmetics and it has various health benefits. Organization's inventory is an important component and its management is vital to the success and cost reduction of the firm's expenditure. Inventory management is critical to an organizations success in today's competitive and dynamic market. This study seeks the influence of inventory on the profitability of stakeholders in terms of cost of processing and sale price in the market. Regression analysis is the method for finding the difference between dependent and independent factor. It is concluded that all the parameters have impact on the cost of finished product. Seasonal variations in cost of raw materials showed significant effects on the cost of finished goods (both cake and oil).

Keywords: oil seed, mustard, Rajasthan, inventory, stake holders

Introduction
Oilseeds have been the backbone of agricultural economy of India since long. Indian vegetable oil economy is fourth largest in the world next to USA, China, and Brazil. India accounts for seven per cent of global oilseeds output; seven per cent of global oil meal production; six per cent of global oil meal exports; six per cent of global vegetable oil production; 14 per cent of global vegetable oil imports; and 10 per cent of global edible oils. The total market size of the Indian oilseed sector is about Rs 600 billion (US$13.4 billion). India's international trade in oilseeds is Rs 130 billion (US$2.9 billion). The sector directly or indirectly employs more than a million people (Pahariya and chandan). Oilseed cultivation in the country takes place on about 26 million hectares of land. Groundnut, soyabean oil and rapeseed/mustard are the major oilseeds and contribute approximately 80 per cent of production.

Oil seeds crops play a second important role in the Indian agricultural economy next to food grains in terms of area and production. Indian climate is suitable for cultivation of oilseed crops therefore large varieties of oilseeds are cultivated here. Rajasthan is India's top Rapeseed & Mustard producing state, followed by Madhya Pradesh and Haryana. Almost half (48.12%) of Rapeseed and Mustard is produced by only Rajasthan (Girish kumar Jha *et al).*.

Mustard or rapeseed is among the major oilseeds in the world and belongs to the genus *'Brassica'*. In India the mostly grown species are B. *juncea* (L.) Czern. (brown mustard) and B. *campestris* L.syn. B. *rapa* L. (yellow mustard) along with B. *nigra* (L.) Koch (black mustard) and B. *napus* L. Subsp. *oleifera* DC. Mustard seed contains about 24 – 40 per cent of oil and 17 – 26 per cent protein and 19 per cent hull. Mustard oil accounts for 18 per cent of Indian edible oil consumption and has pungent taste. The increase in per capita consumption of edible oil and awareness on health benefits of mustard oil has lead to increase in demand (Swati *et al.*).

The area, production and productivity of rapeseed-mustard grew with a compound annual growth rate of 1.88 per cent, 4.18 per cent and 2.26 per cent, respectively during 1980-2009. The production, area and yield of rapeseed-mustard seed experienced a significant growth from 198485 to 1996-97, primarily due to the increase in irrigated land and the availability of high-yielding seeds in the country. Rapeseed-mustard is the major source of income, especially for the marginal and small farmers in the rain-fed areas. Because of its low water requirement, rapeseedmustard crops fit well in the rainfed cropping system. Bharatpur mandi

is the biggest market of rapeseed-mustard in Rajasthan, which is known as Bharatpur Nai Mandi. Knowing the importance of mustard oil in rajasthan the study has been conducted based on the objective of to study the influence of inventory on the profitability of stakeholders.

Methodology
Research Methodology was based on the Descriptive Research.

Research Approach
Survey of the oil processors. Survey was done by directly visiting the all target oil processors and taking an in-depth interview with the help of a well-designed questionnaire.

Research Instrument
In this research project, a questionnaire was devised in a manner to get the knowledge of the target oil processors.

Sampling Plan
Sampling unit in this research project was the local nearby oil units.

Sample Size
The sample size was taken as 25 unorganized oil units.

Sampling Method
Simple Random sampling is used to select the sampling units to decide upon the relevant respondents.

Results and Discussion
The pie-chart of figure 1 depicts the age group and education level of the respondents among the selected oil processing units. The results showed that out of total 25 respondents 40 per cent of respondents i.e., 10 respondents studied only primary education and 24 per cent of respondents i.e., 6 respondents have secondary education, 20 per cent respondents i.e., 5 respondents educated upto higher secondary and remaining 16 per cent i.e., only 4 respondents are graduated whereas 20 per cent of respondents ie., 5 respondents are under age group of 25 -35 years, remaining 80 per cent of respondents are equally distributed i.e., 40 per cent (10 respondents) of 36-45 years and 40 per cent (10 respondent) of 46-55 years of age group.
Fig 2 depicts the experience level of the respondents among the selected oil processing units. The findings proved that out of 25 respondents 4 per cent which is 1 respondent have experience less than 5 years, 8 per cent of respondents i.e., 2 persons have experience of about 6 – 10 years and maximum of 48 per cent i.e., 12 respondents have experience of about 11-25 years and 40 per cent i.e., 10 respondents have experience of more than 25 years

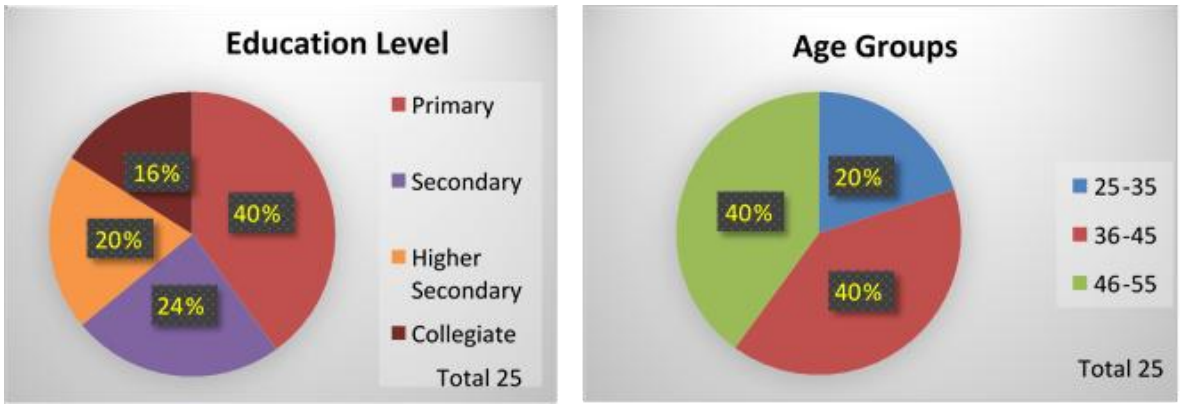

Fig 1: Age groups and education level of the respondents

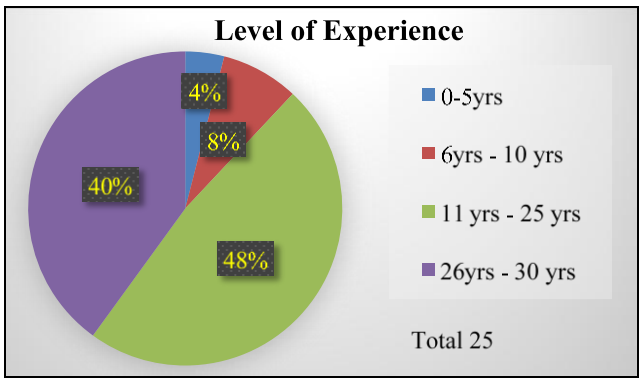

Fig 2: Experience level of the respondents

Fig 3 depicts the comparison of cost of raw materials in peak and off season and it results that cost of raw material is less in peak season as compared to off season as availability of raw materials is more in peak season so cost is less and availability of raw materials is less in off season so cost of raw materials is more. It can be observed that the fluctuations in the off season is more when compared to peak season it is because of the availability of required quantities and lack of proper inventory by the people for their future use.

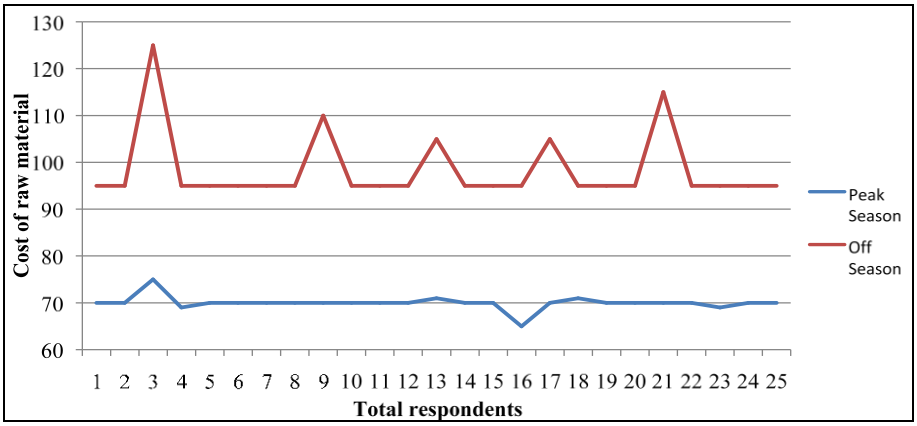

Fig 3: Comparison of Cost of Raw materials in peak and off seasons

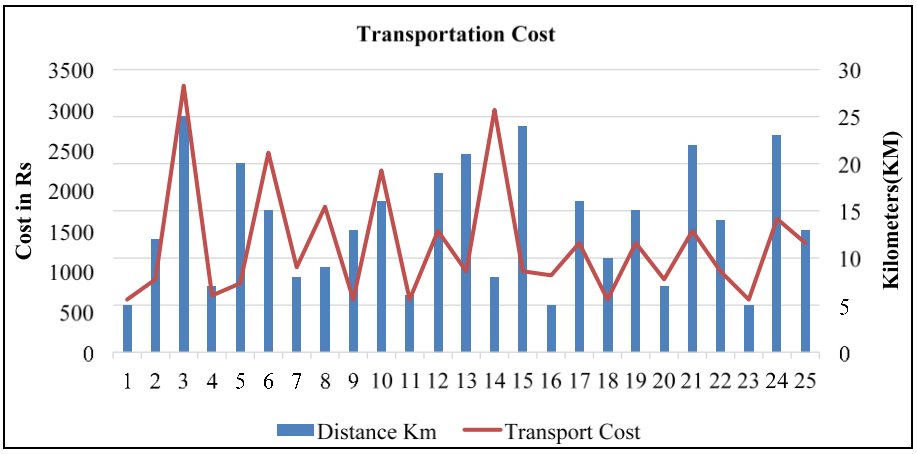

Fig 4: Combined chart of transportation cost with respect to distance

Fig 4 depicts that the cost of transportation is depend on the distance between the oil units and the raw materials available. As the distance between them is more the cost incurred by the oil processors is more. If the availability of raw materials is within 5 kms then the cost incurred is 500 as the distance increases the cost increases.

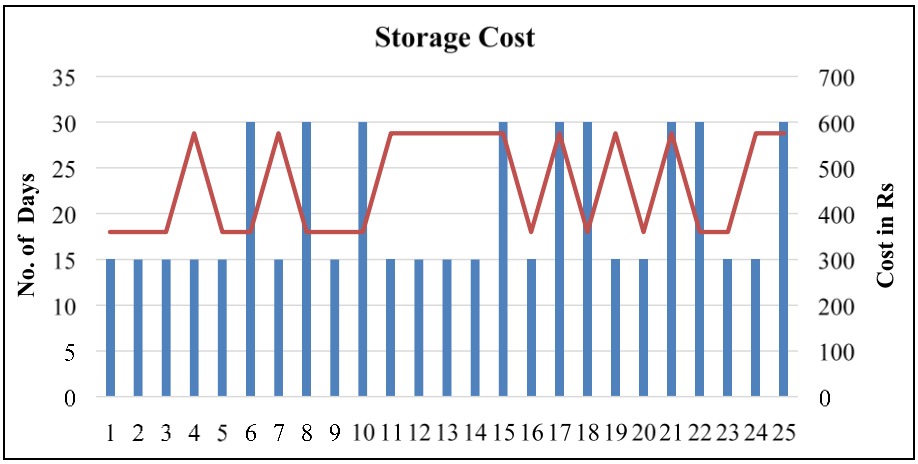

Fig 5: Combined chart of storage cost with respect to duration

Fig 5 depicts that the storage cost depends on the number of days stored. It is very difficult for the oil units to get the raw materials in off season so the oil processors or stakeholders store the raw materials for the off season by purchasing it in peak season with fewer prices. If the material is stored for long duration the storage cost should be more to be barred by stakeholders. Even though storage cost is more and it is stored properly by taking certain preventive measures for spoilage it would be benefitted for stakeholders as the price of raw material is more in off season.

Conclusion

From this study it is concluded that all the parameters have impact on the cost of finished product. Seasonal variations in cost of raw materials showed significant effects on the cost of finished goods. Inventory costs in small scale unorganized oil processing unit have significant influence on the profitability of the processors. Thus the inventory management has been affected the profits of oil and cake. There is the huge hope for oil sector in the market because oil is the most essential needs in our life and the demand for the edible as well as non-edible oil was constant.

References

1. Swati, Sneha Sehwag, Madhusweta Das. A brief overview: Present status on utilization of Mustard oil and cake. Indian Journal of Traditional Knowledge. 2015; 12(2):244-250.
2. Girish Kumar Jha, Suresh Pal, Mathur VC, Geeta Bisaria P, Anbukkani RR, Burman, Dubey SK. Edible Oil Seeds supply and Demand Scenario in India: Implications for Policy. Indian Agriculture Research Institute, New Delhi. 2012.
3. Pahariya NC, Chandan Mukherjee. Commidity Revenue Management: India's rapeseed / Mustard oil sector. International Institute of Sustainable Development. 2007.
4. National Commodity & Derivative Exchange, undated; CRN India, undated; India Mart–Market Watch, undated; Karvy Comtrade, undated.