



ISSN (E): 2277-7695  
ISSN (P): 2349-8242  
NAAS Rating: 5.23  
TPI 2023; SP-12(10): 1076-1079  
© 2023 TPI  
[www.thepharmajournal.com](http://www.thepharmajournal.com)  
Received: 01-08-2023  
Accepted: 06-09-2023

#### Aman Kumar Gupta

Department of Agri-Business and Rural Management, College of Agriculture, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

#### AK Gauraha

Department of Agri-Business and Rural Management, College of Agriculture, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

#### SK Joshi

Department of Agri-Business and Rural Management, College of Agriculture, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

#### H Pathak

Department of Agri-Business and Rural Management, College of Agriculture, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

#### Corresponding Author:

##### Aman Kumar Gupta

Department of Agri-Business and Rural Management, College of Agriculture, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, India

## Supply chain analysis of Koriya Agro Producer Company limited: A case study of Chhattisgarh

Aman Kumar Gupta, AK Gauraha, SK Joshi and H Pathak

#### Abstract

The present study was conducted in Koriya district of Chhattisgarh. Koriya Agro Producer Company Limited (KAPCL) was selected for the study. KAPCL was produce and process the different products viz. Scented Jeeraphool Rice, Citronella oil, Lemon Grass Oil, Ghee, Desi Arhar Dal, Desi Masoor Dal, Desi Kulthi dal, Desi Chana dal, Desi moong dal, Detergent powder premium, Turmeric oil, Honey, Palmarosa Oil, Lemon Grass Herbal Tea, Mustard oil and Desi Urad Dal. It was found through the study 48% of total farmers have been associated with KAPCL business from 3-6 years. While 28% of them have been with KAPCL from 1-3 years and 24% of the farmers have devoted more than 6 years. Result revealed and showed that found through the study total Supply chain of Scented Jeeraphool Rice, Desi Masoor Dal, Desi Kulthi Dal, Desi Arhar Dal, Desi Chana Dal, Desi Urad Dal and Desi Mung Dal, Citronella Oil, Turmeric Oil, Palmarosa Oil, Lemon Grass Oil, Honey, Ghee, Mustard oil, Lemon Grass Herbal Tea and Detergent Powder, farmer company limited sell their product to wholesaler, retailer and consumer with their particular percentage of different channels. Results showed that KAPCL distribute their product to wholesaler followed by retailer.

**Keywords:** KAPCL, FPC, supply chain, distribution channels

#### Introduction

Farmers Producer Companies could be seen as hybrids between private companies and cooperative societies. The producer company concept was aimed to integrate smallholders into modern supply networks- minimizing transaction and coordination costs, while benefiting from economies of scale. They were run and owned by farmers, financially facilitated by Government or donor agencies, and managed by professionals. In this environment of greater instability and competition, organization and collective action can help to enhance farmers' competitiveness and increase their advantage in emerging market opportunities. Swain (2015)<sup>[13]</sup>. The main objective of FPO ultimate objective is to better and stable income opportunity to farmer members via direct business operations. (Kujur *et al.* 2019)<sup>[6]</sup>. The main aim of FPC is to ensure better income for the producers through an organization of their own. Small producers do not have the volume individually (both inputs and produce) to get the benefit of economies of scale. The challenge is enormous for India to ensure that small holdings are truly productive and are the main source of livelihoods for millions of people dependent on it. A Farmer Producer Company (FPC) can be formed by any 10 or more primary producers or by two or more producer institutions, or by a contribution of both.

Korea Agro Producer Company Limited is a Chhattisgarh based private limited. Company Registered at dated 11 APR 2016 on Ministry of Corporate Affairs (MCA), The Corporate Identification Number (CIN) of Korea Agro Producer Company Limited is U01100CT2016PTC007218 and registration number is 007218. It has been classified as non-govt. Company and is registered under Registrar of Companies Chhattisgarh India. (2019 companydetails.in).

#### Materials and Methods

In this study the following methodologies were used mainly selection of study area, sampling methodology, data collection, methodology and analytical tools.

#### 1. Sampling design and methodology

##### Selection of district

The Chhattisgarh state has 32 districts. Out of 32 districts Korea district was selected purposively because there are active Farmer Producer Company.

In which Korea district having Korea Agro Producer Company Limited.

**Selection of blocks**

Korea district having 5 blocks namely Baikunthpur, Bharatpur, Khadgawana, Manendragarh and Sonhat. Out of 5 blocks of Korea district, Baikunthpur block was selected purposively.

**2. Method of enquiry and data collection**

In this study the data related to business performance of selected Farmer Producer Company will be collected from Korea District of Chhattisgarh.

**Data Sources:** Both primary and secondary data were collected for the study.

**Primary data:** Primary data was collected from the farmers through interview schedule, questionnaire etc.

**Secondary data:** Secondary data was collected from the internet sources and website of FPC.

**3. Analytical tools and framework**

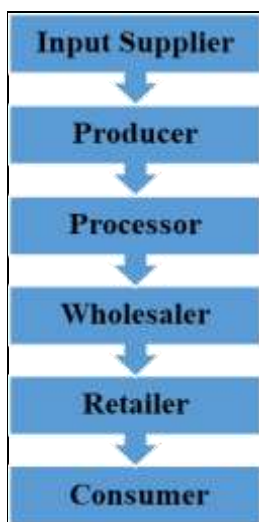
This includes the detail analysis of supply chain and distribution percentage of marketing channel for particular commodity of KAPCL.

**Results and Discussions**

**1. Examine the supply chain analysis of major products of KAPCL.**

**Supply Chain of all commodities in KAPCL**

In existing Supply chain of Scented Jeeraphool Rice, Desi Masoor Dal, Desi Kulthi Dal, Desi Arhar Dal, Desi Chana Dal, Desi Urad Dal and Desi Mung Dal, Citronella Oil, Turmeric Oil, Palmarosa Oil, Lemon Grass Oil, Honey, Ghee, Mustard oil, Lemon Grass Herbal Tea, and Detergent Powder the Agro Inputs like Seeds, Fertilizer purchased from near shop or farmers.



**Fig 1:** Flow chart of Supply Chain of all commodities in KAPCL

**Table 1:** Duration of association of farmers with KAPCL

Years	No. of farmers (N=300)	Percentage
1-3 years	84	28%
3-6 years	144	48%
Above 6 years	72	24%

The data presented in Table 1 on duration of association of farmers with KAPCL showed variation under 48% of total farmer is associated with KAPCL from 3-6 years, 24% of them have devoted more than 6 years with KAPCL and 28% of them associated with KAPCL from 1-3 years.

**1.2 Amount of all products of KAPCL distribute by supplier in different agency**

In this table 2 results showed that most of the respondent sell their product to wholesaler followed by retailer. The total amount of Scented Jeeraphool Rice production was 90 quintal in 2021-22. The production of the Scented Jheerphool Rice is 90 quintal in which 31.5 quintal goes to wholesaler, 36 quintal goes to retailer and only 22.5 quintal goes to consumer.

The production of the Citronella Oil is 20 litres in which 10 litre oil distribute to wholesaler by KAPCL Company, 8 litre goes to retailer and only 2 litres goes to consumer by company. For lemon Grass Oil, production was 15 litres in which 5.25 litre distribute to retailer, 7.5 litres distribute to wholesaler and only 2.25 litres goes to consumer. Whereas in Turmeric Oil, production was calculated 18 litres in which 10.8 litre distribute to wholesaler by KAPCL, 5.4 litres goes to retailer and only 1.8 litres goes to consumer. In Palmarosa Oil production was calculated 15 litre in which 9 litre goes to wholesaler, 4.5 litre distribute to retailer and 1.5 litre goes to consumer.

The production of the Ghee is 500 litres in which 225 litre amount of Ghee distribute to wholesaler by KAPCL Company, 175 litre goes to retailer and only 100 litre distribute to consumer by company. For Honey, production was 500 litres in which 200 litre distribute to retailer, 250 litres distribute to wholesaler and only 50 litre goes to consumer by KAPCL. Whereas in Lemon Grass Herbal Tea, production was calculated 10 kg in which 6 kg distribute to wholesaler by KAPCL, 3.5 kg goes to retailer and only 0.5 kg goes to consumer. In Detergent Powder Premium production was calculated 2 quintal in which 1.1 quintal goes to wholesaler, 0.7 quintal distributes to retailer and only 0.2 quintal goes to consumer. The production of Mustard oil was estimated 1000 litre in which 450 litre distribute to wholesaler by KAPCL, 300 litre distribute to retailer and 250 litre goes to consumer.

Result showed that the production of the Desi Arhar Dal was 10 quintal in which 4.5 quintal goes to wholesaler, 4 quintal goes to retailer and only 1.5 quintal goes to consumer. For Desi Masoor Dal, production was 4 quintal in which 1 quintal distribute to retailer, 2 quintal distribute to wholesaler and 1 quintal goes to consumer by KAPCL. Whereas in Desi Kulthi Dal, production was calculated 2.5 quintal in which 1.12 quintal distribute to wholesaler by KAPCL, 1 quintal goes to retailer and 0.38 quintal goes to consumer. In Desi Chana Dal production was calculated 8 quintal in which 3.6 quintal goes to wholesaler, 2.8 quintal distributes to retailer and 1.6 quintal goes to consumer by KAPCL. The production of the Desi Urad Dal was 7 quintal in which 2.8 quintal goes to wholesaler, 2.45 quintal goes to retailer and only 1.75 quintal goes to consumer. For Desi Moong Dal, production was 5 quintal in which 1.5 quintal distribute to retailer, 2.25 quintal distribute to wholesaler and 1.25 goes to consumer by KAPCL.

**Table 2:** Amount of all product distribute by supplier

S. No.	Product	Production per year	Distribution channel	Percentage	Quantity
1	Scented Jeeraphool Rice	90 quintal	Retailer	35%	31.5 quintal
			Wholesaler	40%	36 quintal
			Consumer	25%	22.5 quintal
2	Citronella Oil	20 litre	Retailer	40%	8 litre
			Wholesaler	50%	10 litre
			Consumer	10%	2 litre
3	Lemon Grass Oil	15 litre	Retailer	35%	5.25 litre
			Wholesaler	50%	7.5 litre
			Consumer	15%	2.25 litre
4	Ghee	500 litre	Retailer	35%	175 litre
			Wholesaler	45%	225 litre
			Consumer	20%	100 litre
5	Desi Arhar Dal	10 quintal	Retailer	40%	4 quintal
			Wholesaler	45%	4.5 quintal
			Consumer	15%	1.5 quintal
6	Desi Masoor Dal	4 quintal	Retailer	25%	1 quintal
			Wholesaler	50%	2 quintal
			Consumer	25%	1 quintal
7	Detergent Powder Premium	2 quintal	Retailer	35%	0.7 quintal
			Wholesaler	55%	1.1 quintal
			Consumer	10%	0.2 quintal
8	Turmeric Oil	18 litre	Retailer	30%	5.4 litre
			Wholesaler	60%	10.8 litre
			Consumer	10%	1.8 litre
9	Honey	500 litre	Retailer	40%	200 litre
			Wholesaler	50%	250 litre
			Consumer	10%	50 litre
10	Desi Kulthi Dal	2.5 quintal	Retailer	40%	1 quintal
			Wholesaler	45%	1.12 quintal
			Consumer	15%	0.38 quintal
11	Desi Chana dal	8 quintal	Retailer	35%	2.8 quintal
			Wholesaler	45%	3.6 quintal
			Consumer	20%	1.6 quintal
12	Lemon Grass Herbal Tea	10 kg	Retailer	35%	3.5 kg
			Wholesaler	60%	6 kg
			Consumer	5%	0.5 kg
13	Palmarosa oil	15 litre	Retailer	30%	4.5 litre
			Wholesaler	60%	9 litre
			Consumer	10%	1.5 litre
14	Mustard Oil	1000 litre	Retailer	30%	300 litre
			Wholesaler	45%	450 litre
			Consumer	25%	250 litre
15	Desi Urad Dal	7 quintal	Retailer	35%	2.45 quintal
			Wholesaler	40%	2.8 quintal
			Consumer	25%	1.75 quintal
16	Desi Moong Dal	5 quintal	Retailer	30%	1.5 quintal
			Wholesaler	45%	2.25 quintal
			Consumer	25%	1.25 quintal

### Conclusions

It was found through the study 48% of total farmers have been associated with KAPCL business from 3-6 years. While 28% of them have been with KAPCL from 1-3 years and 24% of the farmers have devoted more than 6 years. It was found through the study total Supply chain of Scented Jeeraphool Rice, Desi Masoor Dal, Desi Kulthi Dal, Desi Arhar Dal, Desi Chana Dal, Desi Urad Dal and Desi Mung Dal, Citronella Oil, Turmeric Oil, Palmarosa Oil, Lemon Grass Oil, Honey, Ghee, Mustard oil, Lemon Grass Herbal Tea and Detergent Powder, FPC sell their product to wholesaler, retailer and consumer. And results showed that KAPCL distribute their product to wholesaler followed by retailer.

### References

- Asante B, Victor AS, Daniel S. Determinants of small scale farmers' decision to join farmer based organizations in Ghana. *African J. Agric. Res.* 2011;6(10):2273-2279.
- Bikkina N, Turaga RMR, Bhamoriya V. Farmer producer organizations as farmer collectives: A case study from india. *Development policy review.* 2018;36(6):669-687.
- Companydetails.in; c2019. <https://www.companydetails.in/company/koriyaagro-producer-company-limited>.
- Gupta AK, Gauraha AK, Khandekar C. Business performance of Astha Gram Sangathan self-help group (SHG): A case study of Raipur district of Chhattisgarh.

- 2021;3(2):41-45.
5. Joshi SK, Choudhary VK. Performance of Farmer Producer Organizations (FPOs) in Different Regions of Chhattisgarh State: A Case Study. *Indian Journal of Agricultural Economics*. 2018;73(3):399-406.
  6. Kujur P, Gauraha AK. Business performance of farmer producer organizations (FPOs) in Chhattisgarh plains. *Journal of Pharmacognosy and Phytochemistry*. 2019;8(4):3476-3480.
  7. Maria N, Giovanna M, Antonella F, Stefano M. The role of producer organizations in the vegetable value chain: an application to the red chicory from Veneto. *Italian Rev. Agric. Econ*. 2016;71(1):100-114.
  8. NAFPO. Farmer producer Company; c2019. <https://www.nafpo.in/about-us/what-is-a-farmer-producer-company/>.
  9. Ngugi IK, Gitau R, Nyoro J. Access to high value markets by smallholder farmers of African indigenous vegetables in Kenya. *Regoverning Markets Innovative Practice Series*, IIED, London; c2007.
  10. Yadav S, Joshi SK, Dr. Gauraha AK. Management status of farmer producer organizations (FPOS) in Chhattisgarh plains. *J Pharmacogn Phytochem*. 2018;7(3):3288-3290
  11. Shiferaw B, Hellin J, Muricho G. Improving market access and agricultural productivity growth in Africa: What role for producer organisations and collective action institutions. *Food security*. 2011;3:475-489.
  12. Shubhangi S. Farmers Producer Organization for effective linkage of small producers with market. *Intl. J. Applied Res*. 2016;2(10):142-146.
  13. Swain C. Study on Market Linkages by Farmer Producer Organisations (FPOs) in Odisha. MBA. Orissa University of Agriculture and Technology, Bhubaneswar; c2015.
  14. Vijay Paul Sharma. India's Agrarian Crisis and Smallholder Producers' Participation in New Farm Supply Chain Initiatives: A Case Study of Contract Farming. Research and Publications. Indian Institute of Management. Ahmedabad W.P. No. 2007-08-01.
  15. Watanadumrong B, Chemsripong S. Supply Chain Analysis of the Production and Marketing of the Marian Plum in the Case of San Khao Farmers, Phitsanulok, Thailand, *Journal of Social Sciences*. 2021;9(3):491-505.