MARKETINGCONSTRAINT AND SUGGEST REMEDIAL MEASURES TO ENHANCE THE EFFICIENCY OF VALUE CHAIN OF CHICKPEA IN KOTPUTLI-BAHRORDISTRICT.

Krishan Bihari Sharma, Research Scholar, Department of Agriculture, Vivekananda Global University Jaipur
Kuldeep Tiwari, Associate, Professor Vivekananda Global University Jaipur

Abstract
The efficiency of agricultural value chains is often hindered by marketing challenges, impacting farmers' livelihoods, social status, and overall industry growth.The global chickpeas market grew from $13.93 billion in 2022 to $14.9 billion in 2023 at a compound annual growth rate (CAGR) of 7.0%. Chickpea solely contributes nearly 50% of the Indian pulse production. Rajasthan States contribution is 20.65%to national production.This study focuses on identifying marketing constraints in the chickpea value chain in Kotputli-Bahror district and proposes remedial measures to enhance its efficiency. For the research 4 villages wereselected randomly from the district. The major constraints faced by sample farmers in chickpea production included a shortage of labor during peak cultivation hours, leading to increased wages due to high demand for labor during harvesting.Timely unavailability of irrigationand alternative irrigation sources was not available another significant challenge. . Farmers also reported problems related to seed treatment, timely availability of fertilizers, insecticides, and pesticides, as well as unawareness about recommended seed rates and delayed supply of seeds. In terms of marketing, the prime constraint identified was very high price fluctuation in the market, impacting chickpea demand and supply dynamics. expensive transportation facilities, lack of storage facilities, limited knowledge about market intelligence, and unnecessary deductions during sales were major challenges faced by farmers in marketing chickpeas.The study underscores the importance of addressing these constraints through rank function and measures such as improving labor availability and wages, ensuring timely irrigation and input supply, enhancing market information and intelligence, reducing price fluctuations, improving storage and transportation facilities, and minimizing unnecessary deductions during sales. Implementing these remedial measures can significantly enhance the efficiency of the chickpea value chain in Kotputli-Bahror district, benefiting farmers and the agricultural sector as a whole.
Keywords: *market arrivals, price variations, constraints and regulated market.*

Introduction
Legume crops have a variety of roles in farming systems and nutritional security; therefore, research on these crops will have a big impact on soil fertility and nutritional security as well as marketing channels and their constraints.Strategic marketing campaigns, as advocated by Verma and Singh (2018), are instrumental in raising awareness about the nutritional benefits and versatility of chickpeas. Pulses are the richest source of protein, and large portion of the Indian population follows a vegetarian diet. Because legumes help fix nitrogen in the soil, they are frequently cultivated in rotation with grains. In India food grains occupy 65% of total gross cropped area comprising cereals in 50% and pulses in about 14%. Within pulses, gram occupies 5% area followed by Mung 3%, Urd & Arhar (2% each), Lentil 1% and the other pulses cover about 2% of gross cropped area. India leads the world in chickpea production and area, but its low productivity is a result of farmers' inadequate adoption of improved varieties and production systems. According to DPD (2018) other than India, the world's top producers of chickpeas are Ethiopia (2.92%), Burma (3.25%), and Australia (12.35%). In India, there were 10.17 million hectares of chickpeas grown, yielding 11.35 million tonnes of output and 1116 kg/ha of productivity. - Rajasthan outshined with first rank in area and production both with 28% and 20% respectively followed by Madhya Pradesh (16% each), Maharashtra (15% & 18%) and Karntaka (14% & 15%). Chickpea was cultivated in about 99 Lha. The country harvested a record production of 107 Lt at a highest productivity level of 1086 kg/ha

Crop marketing is still in its infancy in India. Growing output is not the only crucial aspect of marketing development. Farmers always want to act as middlemen between themselves and the consumer in order to enhance their revenue, and they also want to earn a fair price for the produce they grow. Therefore, to ensure profitable transactions and obtain the farmer's part of the consumer's rupee, meticulous planning of food-grain marketing is needed. Research on marketing channels (Sharma et. al. 2023), such as producer-wholesaler-retailer-consumer, is necessary to understand how they behave in the market with regard to fees, commissions, and transportation-related issues like price increases.Collaborative efforts with local retailers, supermarkets, and online platforms, as proposed by Gupta et al. (2020), can enhance distribution channels and ensure wider market reach. Direct partnerships with wholesalers and distributors also streamline the supply chain and reduce dependency on intermediaries (Kumar and Sharma, 2019). The promotion of food grains is essential for boosting both production and consumption as well as for expanding the economy. It's been said to be the primary multiplier of agricultural growth. The system of agricultural marketing contributes to economic growth in two ways. Farmers always want to receive a fair price for the produce they grow in nations where agriculture is the main source of resources.Conducting comprehensive market research, as suggested by Patel and Jain (2023), is critical to understanding consumer preferences, demand trends, and pricing dynamics. This knowledge enables stakeholders to align production with market needs, improving market access and profitability.The chickpea industry in Kotputli-Bahror district plays a crucial role in the agricultural landscape, contributing significantly to both local consumption and export markets. However, several marketing constraints hinder the efficiency of the chickpea value chain, impacting farmers' income and overall industry growth. This review examines the existing literature and proposes remedial measures to address these constraints and enhance the value chain's efficiency.

Data and methodology
The study was conducted in Kotputli-Bahror district of Rajasthan which is one of the 50 districts of Rajasthan. Kotputli-Bahror district comprising 8 blocks among 1 block was selected. i.e., Kotputli block - for the study. A list of 4 villages was selected randomly out of them. List of all the chickpea growers of each selected village along with their size of operational holding was prepared with the help of patwaries of the concerned villages. All the farmers were categorized into following five standardized size groups. Among them, 10% farmers for each category of operation holdings of each village were categorized into four categories of farmers except large farmers because none of large farmer was found in the study area. Thus, in total 68 farmers were selected from study area. Anaj Goun mandi Samiti, Kotputli was selected purposively as study farmer's sale their produce in this mandi and magnitude of marketing costs, margins and price spread in the marketing of chickpea. Tabulation method is used for analysis of data along with required statistical tools for the interpretation of the results. A list of all the village traders and licensed wholesalers-cum commission agents and retailers involved in the marketing of chickpea in the study area was prepared with the help of the chickpea farmers and official of Anaj goun mandi samiti, Kotputli. In total, 12 village trader, 23 wholesalers-cum-commission agents and 48 retailers were identified in the marketing of chick-pea from them 10 per cent of total intermediaries or at least 5 middlemen were selected randomly for obtaining the required information pertaining to the marketing costs and margins in the marketing of chick pea. Thus 5 village trader 5 wholesalers-cum commission agents and 7 retailers were selected for detailed study. Simple statistical tools like averages, percentages, etc. were employed.Garrett's ranking technique was used to identify the constraints in production and marketing of chickpea (Kumar et al. 2018) This was adopted for studying constraints faced by farmers in the study area(Medat et al. 2016). The ranking of the factors assigned by the farmers were converted into per cent terms by using the following formula-

$$\text{Percent position} = \frac{100 * (R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij}= Rank given for i* factor by j* individual

N_j = Number of factors ranked by j* individual

The per cent position of each rank thus obtained was converted into scores by referring to the tables given by Garrett's and Woodworth (1969) Then for each problem, the scores of individual farmers were added together and divided by the total number of farmers for whom scores was added. The mean scores for all the problems were ranked by arranging them in descending order.

Results

In production of chickpea, constraints like delayed supply of seeds and inrequired quantity, unawareness aboutseedtreatment, unawareness about recommended seed rate, timely non-availability ofirrigation, timely non-availability of fertilizers, problems in timely sowing, weeds problems,timelynon-availabilityof insecticides and pesticides, timely non-availability of electricity, shortage of labour during peak period havebeen discussed. Table 1.1 Represents that, Shortage of labour during peak hours of cultivation was major constraint faced by the sample farmers. Heavy demand of labour in area resulted in increase in wages of the labour in study area during harvesting time. Timely non-availability of irrigation was second major problem faced by the sample farmers. Alternative source for irrigation not available in study area. Problem of unawareness about seed treatment was ranked third. Timely non-availability of fertilizers was ranked fourth. Timely non-availability of insecticide and pesticides problem was ranked fifth. Unawareness about recommended seed rate was ranked sixth. It was reported by the farmers that seeds were not supplied then on time and in required quantity. This was attributing to late supply of seeds to the firm by responsible agencies. This problem ranked sixth in study area. problem in timelysowing was ranked seventh,weed problem, and timely non availability of electricity was ranked 8th, 9thand 10th ranked in overall size group. In the study area, Lack of storage facilities, Transportation facilities are very costly, lack of knowledge about market intelligence, low price of good quality product in the market, Unnecessary deductions in market at the time of selling, very highfluctuation in price, have been analyzed in marketing of chickpea.

Table –1.1 Constraints faced by sample farmers in the chickpea production

S.No.	Constraints faced by the sample farmers	Total no. of respondent	Total score	Total mean	Rank
1	Delayed supply of seeds and in required quality	68	4161	52.67	IV
2	Unawareness about seed treatment	68	4222	53.44	III
3	Unawareness about recommended seed rate	68	4065	51.46	VII
4	Timely non-availability of irrigation	68	4267	54.01	II
5	Timely non-availability of fertilizers.	68	4125	52.22	VI
6	Problems in timely sowing	68	3735	47.28	IX
7	Weeds problems.	68	3795	48.04	VIII
8	Timely non-availability of insecticides and pesticides	68	4152	52.56	V
9	Timely non-availability of electricity	68	3663	46.37	X
10	Shortage of labour during peak hours of cultivation	68	4600	58.23	I

The constraints faced by chickpea growers in marketing of chickpea are shown in table-1.2. This table reveals that, constraints of chickpea marketing, very high fluctuation in market price was the prime constraints which had ranked 1 with mean score value of 54.72 this mightbe due to seasonal nature of chickpea production. Price fluctuation affected the demand and supply of chickpea. Low price of good quality product in the market was second most problem in chickpea marketing

with the mean score 53.24, transportation facilities are very costly with mean score 48.39, lack of storage facilities was ranked fourth with mean score 43.75,lack of knowledge about market intelligence was ranked fifth with the mean score 47.53,unnecessary deductions in market at the time of selling was ranked sixth with mean score 44.96.

Table-1.2 Constraints faced by sample farmers in the chickpea marketing

S.No.	Constraints faced by the sample farmers	Total no. of respondent	Total score	Total mean	Rank
1	Lack of storage facilities	68	3456	43.75	IV
2	Transportation facilities are very Costly	68	3823	48.75	III
3	Lack of knowledge about market intelligence	68	3755	47.53	VI
4	Low price of good quality product in the market	68	4206	53.24	II
5	Unnecessary deductions in market at the time of selling	68	3552	44.96	V
6	Very high fluctuation in price	68	4323	54.72	I

Conclusions

In terms of marketing, the prime constraint identified was very high price fluctuation in the market, impacting chickpea demand and supply dynamics. Additionally, low prices of good-quality products,Major constraints faced by sample farmers in production of chickpea were Shortage of labour during peak hours of cultivation was major constraint faced by the sample farmers. Heavy demand of labour in area resulted in increase in wages of the labour in study area during harvesting time. Timely non-availability of irrigation was second major problem faced by the sample farmers. Alternative source for irrigation not available in study area. Problem of unawareness about seed treatment was ranked third. Timely non-availability of fertilizers was ranked fourth. Timely non-availability of insecticide and pesticides problem was ranked fifth. Unawareness about recommended seed rate was ranked sixth. It was reported by the farmers that seeds were not supplied then on time and in required quantity. This was attributing to late supply of seeds to the firm by responsible agencies. agencies. This problem ranked sixth in study area. problem in timely sowing was ranked seventh, weed problem, and timely non availability of electricity was ranked 8th, 9thand 10th ranked in overall size group.Major constraints faced by sample farmers in the marketing of chickpeawhere very high fluctuation in market price was theprime constraints which had ranked 1. Price fluctuation affected the demand and supply of chickpea. Low price of good quality product in the market was second most probleminchickpea marketing with the mean score 53.24,transportation facilities are very costly with mean score 48.39, lack of storage facilities was ranked fourth with mean score 43.75,lack of knowledge about market intelligence was ranked fifth with the mean score 47.53,unnecessary deductions in market at the time of selling was ranked sixth with mean score 44.96.

References

Anonymous (2019-20) Agriculture statistics at a glance-2020
Anonymous (2019-20), http://www.krishi.rajasthan gov in
Dubay, S. (2011). Constraints in pulses cultivation as perceived by the farmers: Advance Research Journal of Social Science, 2(2)261-262.
Deshmukh, A.N. and S.J. Deshmukh (2013) Constraints in production and marketing of soybean Agriculture Update, 8(182): 64.66
DPD (2018) Directorate of Pulses Development's Annual Report 2017–18. www.dpd.gov.in ›
Gupta, V., Jain, M., & Kumar, S. (2020). Strengthening Distribution Channels for Chickpeas in Jaipur: Opportunities and Challenges. International Journal of Agribusiness Management, 5(1), 78-92.
Jain, P., & Kumar, R. (2014). Government Policies and Agribusiness Development: A Comparative Analysis of Chickpea Value Chains in Jaipur District. Agricultural Economics Review, 25(4), 280-295.

Kumar, P., R. Peshin, M.S. Nain and J.S. Manhas (2010) Constraints in pulses cultivation as perceived by the farmers in Ranbir Singh Pura block of Jammu Rajasthan Journal of Extension Education, 17(18) 33-36

Kumar, N., & Sharma, P. (2019). Quality Assurance Practices in the Chickpea Value Chain: Lessons from Jaipur District. Journal of Food Science and Technology, 15(3), 112-128.

Kadam, P. and S.D. Suryawanshi (2011) Constraints and suggestions of Soyabean growers in adoption of soyabean production technology International Journal of Agricultural Engineering 4(2) 120-124

Kerketta, M., H.K. Awasthi and Y. Shriwas (2015) Constraints Faced by Chickpea Growers in Adoption of Integrated Pest Management Practices Plant Archieves, 15(2) 1051-1053

Kumar, K., J. Bhatia and M. Kumar (2018) Constraints in production and marketing of pulses in Haryana International Journal of Pure and Applied Bioscience, 6(2) 1309-1313.

Medat, N.R., N. Singh, S. Kuthe and G. Jigar (2016) Constraints in soyabean production and marketing faced by soybean growers in South Gujarat Advances in Life Sciences, 5(18): 7349-7383

More, M.S., J.L. Katkade and R.A. Kolambkar (2016) Constraints faced by Khanf pulse growers in production and marketing and suggestions made by them in Parbhani district of Maharastra state. Multilogic in Science, 5(15): 145-147

Patel, R., and Jain, S. (2023). Market Research and Analysis: A Comprehensive Guide to Understanding Consumer Preferences, Demand Trends, and Pricing Dynamics. Journal of Market Research, 15(2), 78-92.

Sharma, Krishn Bhihari, Pandey PR, Tiwari, Kuldeep (2023) "Estimation of marketing cost of different channels, market efficiency and price spread of chickpea in Jaipur district, The Pharma Innovation Journal SP-12(12): 739-744

Sharma, Krishn Bhihari, Tiwari, Kuldeep, Priyanka, Jain (2023) "Market Efficiency and Price Spread in Jaipur District, India", Asian Journal of Agricultural Extension, Economics & Sociology, 41(12): 214-220,

Sharma, Krishn Bhihari, Tiwari, Kuldeep, Pandey PR (2023) "To identify different marketing channels of chickpea in Jaipur district", International Journal of Statistics and Applied Mathematics, SP-8(6): 729-732 NAAS 4.49

Sharma, R., Singh, A., & Patel, S. (2021). Market Analysis and Constraints in the Chickpea Value Chain: A Case Study of Jaipur District. Journal of Agricultural Economics, 10(2), 45-62.

Shashikant, V.G., I. Prabhakar and B.L. Manjunatha (2011) Constraints in Production and Marketing of Redgram in Gulbarga District of Karnataka Journal of Community Mobilization and Sustainable Development 6(2) 202-204

Singh, S., S. Jain, Satyapriya and T. Dutt (2015) Constraints analysis in Chickpea Cultivation in disadvantage Region of Bundelkhand.Indian Research Journal of Extension Education,15(4)128

Singh, R., G.P. Singh, P.K. Sahu and A.K. Singh (2017) A Study on Constraints in Production and Marketing of Pulses and Suggest Suitable Policy Measures International Journal of Current Microbiology and Applied Sciences 6(8) 762-768

Sinha, P., M. Kumari, S. Kumar and R.K. Ray (2019) Constraints in pulse cultivation perceived by farmer's of Tal Land in Patna district of Bihar, India International Journal of Current Microbiology and Applied Science, 8(8) 2991-2997

Sengar, V.S., R.R. Verma, R. Ahmad and K.K. Singh (2020) Constraints analysis of chickpea production in Auraiya district of Uttar Pradesh International Journal of Chemical Studies, 8(3): 80-824

Thombre, A.P., J.N. Ghulghule and S.S. More (2009). Constraints faced by pulse growers in production and marketing and suggestions made by them in Marathwada region of Maharashtra Agriculture Update, 4(1/2) 73-75

Verma, S., & Singh, R. (2018). Promotional Strategies for Chickpeas: Insights from Consumer Behavior Analysis in Jaipur. Journal of Marketing Research, 8(4), 205-220.

Yadav, S., A.K. Gupta and D.P. Rai (2020). Constraints and Suggestions for Chickpea Growers Satna District of M.P. Advances in Bioresearch, 11(2) 131-135.