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A Study on Cost of Intermediation in Agricultural Produce Market Committee (APMC) and Regional Commodity Exchange

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Abstract: **In India, buying and selling of agricultural commodities is regulated under APMC Act of respective State Government. APMC performs a crucial function of organizing agriculture trade, providing a meeting point for buyers and sellers. Thus, by creating regulated markets, the price paid to farmers by licensed middlemen for their produce could be monitored and thereby ensuring that they were not exploited (Aditya Singh). But over the years it grew into a monster, gaining layer upon layer of intermediaries, none of whom added any value to the commodities they traded, even as they added on their own margins mainly due to the non-transparent price setting in the market where seller and buyer are often cheated (Pradeep Kumar Mishra and Anjani Sinha). This makes the chain inefficient, resulting into costlier food products to the consumers. Therefore there exists the need for the commodity exchanges which can lead to development of structured mechanism of agricultural produce through which non-transparency in price setting can be overcome and could help in making available up-to-date market information through various means including internet at the exchange. In this regard, the present study has been undertaken to study the pricing patterns of APMC and Regional commodity exchange and to know the Cost of intermediation involved when they trade through APMC and exchange to suggest measures to improve the efficiency of the agricultural marketing system. Soya bean (commodity) has been chosen for the study.**

Keywords: **Supply chain management, Cost of intermediation, APMC, Regional commodity exchange.**

JEL Classification: Q13, G19.

1. INTRODUCTION

Agricultural sector need efficient functioning of its markets to stimulate economic growth and incomes of the large rural population dependent on agriculture. An efficient marketing system is pertinent for optimization of the resource use, output management, improving farm incomes, growth of agro-based industry and enhancing value addition. The efficient markets are also important for the stable consumer prices, higher returns to the farmers and reducing post harvest losses as they ensure remunerative prices to the producers and products are available to the consumers at reasonable price. For markets to work efficiently it is pertinent to link the farm gate with retail outlets so as to reduce losses and marketing costs. However it requires an institutional framework and infrastructure to prepare the produce in the form demanded by the consumers. In order to ensure efficient system of trading agricultural markets in almost all the States APMC's were established and regulated under the Agriculture Produce Marketing Development & Regulation Act. Although the APMCs were set up to protect farmers from exploitation of intermediaries and traders and to ensure better prices and timely payment for their produce, but these markets have become inefficient over a period of time. Therefore, it made necessary for the existence of commodity exchanges which can lead to development of structured mechanism of agricultural produce through which non-transparency in price setting can be overcome and could help in making available up-to-date market information through various means including internet at the exchange.

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A commodity exchange is essentially a market in which multiple buyers and sellers trade commodity-linked contracts (goods) on the basis of rules and procedures laid down by the exchange. They are centers of information, quality and market discovery and broadcast local and world prices, supply and demand data, weather, and relevant government actions. The price and product discovery function of the commodity exchange also help private sector importers in developing countries have better product information and a better sense of market capacity when making production decisions. They also play an important role in connecting rural areas to the urban centers as well as linking small farmers to major buyers. Over time they also serve to create jobs for rural non-skilled and labor. A Regional Commodity **Exchange** can also add liquidity to the market by virtue of the larger number of sellers and buyers of commodities which it pulls together. In other words, a regional commodity market can help solve the problem of thin markets by creating much needed mass and concentrating supply and demand in a specific location. Such an exchange could help address issues of price manipulation which is often a problem in developing countries as well as help in the development of other innovative financing tools for agriculture in particular and infrastructure in general.

In this regard the present study has been undertaken to study the need for the Commodity exchanges and to know the role played by these exchanges in marketing the agricultural produce. For this purpose, Soya bean (commodity) has been chosen for the study.

APMC Trading system and its Constraints:

Open auction system is being followed in APMC market. Though the sales are done in open auction system, farmers interest can often be affected as there may be a tacit of mutual understanding among the bidders to not to bid high. In addition to this, a number of unfair practices like short weights, unwarranted deductions and higher rate of commission and other market charges prevalent in most of mandis take away a substantial share of the price paid by the purchasers and place the farmers at a disadvantage. For markets to work efficiently it is pertinent to link the farm gate with retail outlets so as to reduce losses and marketing costs. However it requires an institutional framework and infrastructure to prepare the produce in the form demanded by the consumers. In order to ensure efficient system of trading agricultural markets in almost all the States APMC's were established and regulated under the Agriculture Produce Marketing (Development & Regulation) Act. Although the APMCs were set up to protect farmers from exploitation of intermediaries & traders and to ensure better prices and timely payment for their produce, but these markets have become inefficient over a period of time.

Therefore, it makes necessary for the existence of commodity exchanges which can lead to development of structured mechanism of agricultural produce through which non-transparency in price setting can be overcome and could help in making available up-to-date market information through various means including internet at the exchange. Trading takes place in the Ring Hall with an outcry system which will be replaced in gradual phases through computerized environment. All trades confirmed by the exchange are guaranteed for performance.

Table.1: Comparison of APMC Markets and Regional Commodity exchange

Particulars	**Spot markets** (mandi)	**Futures market**
Operates through	More than 9000 APMCs	6 national online exchanges (MCX, NCDEX, NMCE, ACE, ICEX etc) and 16 regional exchanges
Reach Confined to particular	Market place	Across the Country
Delivery	Immediate	At expiry
Risk	Less	High
Returns	Less	High
Transportation	Required	Required
Trading through	Mandis/physical market	Electronic platform
Quality	Varied	Standardized
Regulation	State APMC ACTS	Forward Markets Commission (FMC)

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2. REVIEW OF LITERATURE

Aditya Singh in his paper tells that there was a large price spread (different between prices paid by consumers and prices paid to the farmer) which was due to various marketing costs and margins of the intermediaries. But by creating regulated markets, the price paid to farmers by licensed middlemen for their produce could be monitored and thereby ensuring that they were not exploited. Whereas **Sanjay Sharan,** Director (Marketing),(2013) in his study suggest measures to overcome the constraints of agricultural marketing like Providing Multiple and competitive choices to the farmers, Empowering farmers with market information, Attracting Large Scale investments for building Post-Harvest infrastructure. But, Pradeep Kumar Mishra and Anjani Simha in their paper makes the comparison of costs for buyers from National Spot exchange and APMC market yard and tells that the farmer realizes less price if he trades through APMC rather than National spot exchange. They also tells that the cost of intermediation will be high in APMC market than National spot exchange.

In this regard, the present study has been undertaken to make the cost comparison by studying the expenses levied by APMC and Regional commodity exchange and also to know the cost of intermediation in APMC market yard and Regional commodity exchange.

Objectives of the study:

1. To compare the cost involved for buyers from Agricultural Produce Market Committee (APMC) and Regional commodity exchange.

2. To know the cost of intermediation of Agricultural Produce Market Committee (APMC) and Regional commodity exchange.

Scope of the study:

The study was confined to cost of intermediation comparison in APMC and Regional commodity exchange. For this purpose, information from the officials of APMC, Bangalore and National Board of Trade, Indore has been collected for the study.

3. METHODOLOGY

The study is designed as descriptive one based on the survey method. Both primary and secondary data are used for the smooth conduct of the study.

Primary data has been collected from officials of Agricultural Produce Market Committee **(**APMC) by interviewing the official in APMC and National Board of trade, Indore by mail. Convenient sampling was used for the study.

Secondary data has been collected from various secondary sources like Policy documents of the government, research reports, magazines, newspapers and discussion-forums on internet

The collected data were processed and presented in the form of tables and figures.

Sampling Design:

Convenient sampling was used for the study.

4. RESULTS AND DISCUSSION

Soya bean Scenario in India:

Soyabean is the most popular oilseed currently after groundnut is also the largest produced oilmeal in the country. India produces 5-7 million tons of beans, 1 million ton of oil and 3-5 million tons of soymeal in a normal year. Madhya Pradesh (3.5-4.5 million tons), Maharashtra, Rajasthan are the major producers of soybean in India.

In 2003-04 (Apr-Mar), India is estimated to have crushed 51.64 lakh tons of soyabeans to produce 42.35 lakh tons of soymeal and 9.3 lakh tons of soyoil.

Soya is a Kharif crop, sown in June-July and harvested by September-October. Peak arrivals are from October-November. India is one of the major exporters of soyameal to the Asian countries. South Korea, Thailand, Philippines,

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Japan are some of the major importers of soyameal from the country. India typically exports around 65% of the country's soyameal production currently. Soyameal accounted for 84% of the total edible oilseed meal exports from the country.

This leaves around 1-2 million tons for the consumption of the domestic poultry and cattle feed industry. India, does not import soyameal to meet the requirements of the domestic feed industry, as the price equation inclusive of transports does not work in favour of imports.

Major Indian Markets:

Indore, Ujjain, Dewas, Mandsore in Madhya Pradesh, Nagpur in Maharashtra, Kota in Rajasthan are major trading centers.

Table.2: India in World Soy Industry

(Rounded figs.)	**India**	**World**	**% Share**
	(In million tons)		
Annual Seed Production	6	180	3
Annual Oil Production	1	30	3.3
Annual Oil Imports	1.5	9	16.7
Annual Oil Consumption	2.5	30	8.3
Annual Meal Production	3.5	130	3.5
Annual Meal Exports	2.5	43	5.8
Annual Meal Consumption	1	130	0.7

Important Soya Markets of the World:

Chicago (CBOT), largest soya futures market China, where beans and meal are traded at Dalian Commodity Exchange

Table.3: Comparison of costs for buyers from Regional commodity exchange and APMC- (For 50 kg's of Soya bean)

Regional Commodity Exchange			**Agricultural Produce Market Committee (APMC)**		
Expenses	**Lot size**	**Amount**	**Expenses**	**Lot size**	**Amount**
Base price i.e., Soyabean loose price at RCE terminal per lot	50 kg's	2100.00	Base price	50 kg's	2100.00
Transaction charges @ Rs 500/- per One Lakh of Turnover		10.50	APMC cess –(1.5% on base price)		31.50
			Weighment charges		0.50
					2132.00
			Loading charges at Mandi		2.40
			Unloading charges		2.40
Total cost for 50 kgs of soyabean		2110.50	Total cost for 50 kgs of soyabean		2136.50
Difference in cost for 50 kg's of Soya bean					**26.00**

Source: Primary data

Table 3 reveals that the cost will be high when the buyers purchase from APMC when compared to Regional commodity exchange i.e., 2110.50. Hence, the total difference comes to Rs.26 which the buyer has to pay more in case of APMC.

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Cost of Intermediation of Soya bean in APMC market:

The agriculture markets, also called as mandis, are regulated by respective state governments, and the individual states have their own agriculture marketing acts (APMC Acts). The current system allows farmers to sell the produce in these mandis only through authorized commission agents.

Intermediaries in APMC market:

Farmers

↓

Sell produce (without Grading or sorting)

↓

Agriculture market (Mandis)

↓

Trader Buys produce from mandis

↓

Value addition

↓

Grading, Sorting

↓

Sell produce at higher price

In the auction mechanism, traders organize auction on behalf of the farmers. In such auction, traders buy on behalf of buyers from farmers for Rs.2100 per 50 kgs of soyabean. There are some expenses related to soyabean purchase levied by the traders in the market. Expenses are shown in the table below:

Expenses	**Amount (Rs.)**
Base price(50 kgs of soyabean)	2100
Market cess- 1.5%	31.5
Loading charges	2.40
Profit margin- 10%	210
Total cost for the buyers	2343.90

Source: Primary data

Hence, the total cost comes to Rs.2343.90 for 50 kgs of soyabean for the buyers in the market. But the traders can be eliminated from the chain and hence helps in reducing the cost to the buyers and therefore APMC officials have to play the role of traders where it may increase the expenses like maintenance cost of APMC. Therefore, it makes necessary to include traders in the chain which increases the cost to the buyers in purchasing the soyabean.

Cost of Intermediation in Regional Commodity Exchange:

The buyers can get the assured quality produce at regional commodity markets at times. The risk of default from both sellers and buyers does not exist in the Regional commodity exchange. Cost of intermediation will be less as the traders will be eliminated from the chain and thereby helps in increasing the revenues to farmers as well as reducing the cost to buyers.

Farmers

↓

Grading and sorting at Regional commodity exchange platform

↓

Sell produce at much higher price

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The cost of intermediation will be low when compared with APMC as the chain of intermediaries involved are less in Regional commodity exchange. Therefore, for 50 kg's of Soya bean, total cost comes to Rs. 2110.50 as against 2343.90 in APMC, Bangalore.

Why Farmer realize more price on Regional commodity exchange platform compare to APMC market?

In APMC, there is a practice of deducting 3 to 4 Kg weight from each bag of 75 Kg on account of impurities. This implies 4 – 5 % loss to the farmer. But in Regional commodity exchange, there is no such deduction applicable.

In APMC auction, farmer has to bear the expenses of unloading and weighing charges, while in case of, Regional commodity exchange, no such expenses are payable by the farmers.

Buyer pays higher price in APMC's as the traders adds up his margin of profit which nearly accounts for 10%.

The net impact of all these saving is a benefit of at least 9-10 % increase in farmers' price realization.

Advantages of commodity exchanges to the farmers:

- ✓ Instant payment
- ✓ Higher price realization
- ✓ Low cost of intermediation

Advantages of commodity exchanges to the buyers / Millers:

- ✓ Saving in transportation cost
- ✓ Savings in brokerage and other expenses
- ✓ Scientific quality testing, weighing and low handling loss

Advantages of commodity exchanges to the traders:

- ✓ Counter party guarantee
- ✓ Timely payment
- ✓ Bank finance
- ✓ Avoidance of un-scientific deduction on account of quality

5. CONCLUSION

Under the present system, the APMC serves as the primary market-maker between the farmers and traders. Prices at the so regulated mandis are dependent upon local demand and supply factors, and farmers have no choice but to accept the price offered by the traders through the APMC. This reduces the revenue to the farmers as they have to accept the price quoted by the traders and increases the cost of intermediation in the market. Therefore, a great deal of work has to be done to familiarize farmers with the modalities and the advantages of the Regional commodity exchanges as they help in eliminating the traders from the chain of intermediaries. Regional commodity exchanges and APMCs will co-exist because some farmers will like to sell only to their familiar local trader, and it is only when they see other farmers making more profits or getting a better price from the exchanges that they are likely to change. Therefore there is a need to educate the farmers regarding the benefits of exchange and for this word-of-mouth publicity will play a major role in the success of increasing the awareness among the farmers says Gagandeep Kaur in his report.

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