



## PATTERN OF ARRIVALS AND PRICES OF WHEAT IN DIFFERENT GRADE REGULATED MARKETS OF MADHYA PRADESH

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**Abstract-** The present study has been under taken in different grade regulated markets to analysing the pattern of market arrivals and prices in Madhya Pradesh for wheat. As it is the main crop of the state. One Regulated Market (Krishi Upaj Mandi) i.e. Sehore, Mhow, Kalapipal and Katangi have been selected randomly from each grade (A, B, C and D Grade) Regulated Markets in Madhya Pradesh. The study has exposed an increasing positive trend in arrivals and prices of wheat in all the A, B, C and D Grade selected Regulated Markets. The arrivals in different grade regulated markets show positive correlation with the prices revealed that as the price increases the arrivals also increases in the market. But it's not true in the case of D grade regulated market, which is might be due to lack of facilities in this particular grade of regulated market. The maximum arrivals of wheat (7976 tons) were found to be arrived just after the harvest of the crop i.e. the month of March, April, May and June and the rest of the arrivals were found to be distributed in the remaining 8 months of the year. The weak correlation between arrivals and price has been found in different months of the year, which was found, might be due to the government purchase the wheat of the farmers on Minimum Support Price (MSP) with extra bonus. Therefore, it is an urgent need for advancement and development of all the markets as the A grade markets having all the fundamental facility such as storage facility i.e. warehouse, cold storage, ripening chamber, including transportation facility as truck, buses, trains and basic facilities such as electric weighment, graders, electric display board, canteen, parking, post office, bank, ATM, with rest house, drinking water, electricity, toilets and internal roads and facilities that need to be online all the markets so that farmers can get a fair price of their produce at their home.

**Keywords-** Pattern, Arrivals and Prices, Wheat, Different Grade, Regulated Markets, Madhya Pradesh

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### Introduction

The price variations are common in agricultural commodity mainly because of seasonality in production and inter market arrivals and forced to sale cause decline in price and the intermediate functionaries reap the benefit of such large income. [1] Hence, it is essential to understand the fluctuation in prices and arrivals of each commodity in given market so as to decide the period to maximize the net returns.

The efficient working of markets provides remunerative prices to the producers and truthful prices to the consumers. Market integration and price transmission, in the case of a large producing and overwhelming country like India; depend on the geographical distribution or attentiveness of production. While, consumers are spread all over the country, the production and marketed surplus are less outspread. Apart from method or incentives to raise food production (through tools, modern inputs, irrigation expansion, and infrastructure development), several policies too have impacts on market situation and their impacts are trailed over varying rates. The government intervention in the form of policies in marketplace, viz. announcement of minimum support prices (MSPs) and obtain of grain at these prices, in the event of market prices falling below these levels; maintenance of food buffers for food security and price stability; and supply of wheat to the consumers, particularly to the vulnerable sections of the society, at affordable (subsidized) prices; regulation of traders' marketing practices through *inter alia* imposition of stocking limits and levies; and lastly regulation of imports and exports through canalization, licensing, imposition of trade tariffs, and minimum export prices (MEPs), with a view to maintain supplies and price stability in the market, [2] generate market sentiments among stakeholders that are

ultimately reflected in price formation in the market.

In Madhya Pradesh, regulatory framework for agricultural marketing is unique and consists of two separate set of measures. One of these is improvement and regulation of primary markets, generally called "Regulated Markets" and the second set is the regulation of market through a sequence of legal instruments. Further in accordance with the recommendations of the National Agriculture Commission, the M.P. State Agricultural Marketing Board i.e. MPSAMB (also known as Mandi Board) has come into existence w.e.f 1973 under the provisions of M.P. Krishi Upaj Mandi Adhinyam 1972.

Presently in Madhya Pradesh there are a total of 538 regulated markets of which 258 are main wholesale markets having elaborate infrastructure also known as Krishi Upaj Mandi and the balance 280 having lower level of infrastructure known as Sub Mandi. In addition to these there are haat bazars in the rural areas where farmers and other people come together from time to time to sell their farm marketable surpluses and buy their essential requirements. In Madhya Pradesh the 258 main wholesale markets were categorised into A (51), B (40), C (58) and D (109) grade on the basis of annual revenue collected through the payment of mandi tax by buyers. The A grade mandies are largest with a gross annual income of over Rs. 40 Lakh, B grade mandies have a gross annual income between Rs. 20 to 40 Lakh, C grade mandies annual revenue between Rs. 6 to 20 Lakh and D grade have a gross annual income lower than Rs. 6 Lakh.

The mandi board is a three tier organisation. First tier consist of M.P. State Agricultural Marketing Board (MPSAMB) with the office at the state capital Bhopal. The second tier of the MPSAMB structural channel is the Regional office, which have their demarcated area of operation and the Mandies situated in the said area

of operation are affiliated to the Division office for administrative control.

There are 7 Division Offices in the State individually having 18 to 45 Mandi Committees under its jurisdiction. Third tier consists of regulated markets. These are in the nature of physical and institutional infrastructure at the first contact point for farmers to en-cash their farm marketable surpluses Mandies in the state were of A, B, C and D grade. These grades are assign to the mandies on the basis of their turn over. Out of this mandies only A grade mandis, 51 in number regularly upgraded by the organization and provide the daily rate and arrivals to the farmers through the internet on [www.mpmmandiboard.com](http://www.mpmmandiboard.com). [3]

Supply and demand are the two main variables which explain the development process of any industry or enterprise. In a market economy, the raise in agricultural production and transfer of surpluses from one sector to other are to be brought about by the price signals. The prices of most agricultural commodities are inherently susceptible to violent fluctuations, the economic consequences of which are dire. [4]

In other words, the mobilization and allocation of productive resources takes place through the marketing system. Efficient pricing of agricultural commodities, therefore, assumes a crucial role in initiating and maintaining the development process. A system of efficient pricing is *sine-quo-non* to maximize agricultural production. It also leads to maximum social welfare from the given output. The objectives can be achieved only if the marketing system ensures prices, which are stable and remunerative to producers. The prices must be reasonable to consumers as well as meet the demand for the increased production. [5] Keeping these reviews in mind the present study has been under take in different grade regulated markets to analysing the pattern of market arrivals and prices in Madhya Pradesh for wheat as it is the main crop of the state.

**Objectives**

To analyse the relationship of market arrivals and prices of wheat in different grade regulated markets in Madhya Pradesh.

To analyse the pattern of arrivals and price of wheat in different grade regulated market in Madhya Pradesh.

**Materials and Methods**

One Regulated Market (Krishi Upaj Mandi) i.e. Sehore, Mhow, Kalapipal and Katangi have been selected randomly from each grade (A, B, C and D Grade) Regulated Markets in Madhya Pradesh. The study is based on time series data related to market arrivals and prices of wheat. These data were collected from online and offline records of M.P. State Agricultural Marketing Board i.e. (commonly known as Mandi Board) Bhopal for the period of last 14 years (2001-02 to 2013-14). The data were analysed with mean, Standard Deviation, Coefficient of Variance, Correlation Coefficient, and Regression Coefficient to draw conclusions.

**Results and Discussion**

**Relationship of market arrivals and prices**

The average arrivals (2388.5 tons) of wheat in different grade regulated market was found to be maximum in A grade regulated market (6634.5 tons) followed by B grade (2000.5 tons), C grade (1270.7 tons) and D grade (82.4 tons) regulated market. The annual average price of wheat (Rs. 1011.8/q) was also found maximum in A grade regulated market (Rs. 1269.8/q) followed by B grade (Rs. 1053.2/q), C grade (Rs. 1056.7/q) and D grade (Rs. 856.2/q) regulated market. The arrivals in the regulated market were found to be increase at the rate of 210.3 tons per annum with annual linear growth of 8.8 per cent per annum during the period under study, while the prices were found to be increased with the rate of Rs. 2.2 per quintal per annum with annual growth of only 0.2 per cent per annum.

The arrivals in different grade regulated markets shows positive correlation with the prices revealed that as the prices increases the arrivals also increases in the market. But it's not true in the in the case of D grade regulated market, which is might be due to lack of facilities in this particular grade of regulated market. The average arrivals were found to be increased 713 (2001-02) to 3799 tons (2013-14) in different grade regulated markets with the fluctuation of 910.7 tons per year (38.1%). [Table-1] The prices of wheat were also found to be increased Rs. 723 (2001-02) to Rs. 1626 (2013-14) in different grade regulated markets with the fluctuation of Rs. 267.2 per year (26.4%). The fluctuation of arrivals and prices were found to be more in D grade regulated market (104.2%, 36.6%) as compared to C grade ( 85.4%, 30.1%), B grade (54.0%, 28.2%) and A grade (29.5%, 25.7%) regulated market.

**Table-1 Average annual arrivals (tons) and prices (Rs./q) in different grade regulated markets in Madhya Pradesh.**

Years	Grade A		Grade B		Grade C		Grade D		Overall Average	
	Arrivals	Price	Arrivals	Price	Arrivals	Price	Arrivals	Price	Arrivals	Price
2001-02	2462	965	266	716	123	718	1	495	713	723
2002-03	4484	928	466	727	248	703	122	480	1330	710
2003-04	6741	960	793	751	432	741	105	510	2018	741
2004-05	7665	806	1642	711	1255	698	331	542	2723	689
2005-06	7514	978	1733	776	952	770	111	614	2578	785
2006-07	5807	1097	1296	1097	298	970	58	690	1865	964
2007-08	6502	1500	2463	1007	817	1397	5	892	2447	1199
2008-09	5642	1322	2815	1134	669	1074	28	1044	2289	1144
2009-10	4908	1558	1984	1257	887	1281	125	1101	1976	1299
2010-11	7740	1535	2982	1276	1996	1360	27	1139	3186	1327
2011-12	8717	1500	3691	1332	2838	1119	51	1111	3824	1265
2012-13	8550	1531	2837	1288	3404	1251	62	1113	3713	1296
2013-14	9515	1829	3037	1620	2600	1654	45	1400	3799	1626
Mean	6634.5	1269.8	2000.5	1053.2	1270.7	1056.7	82.4	856.2	2388.5	1011.8
SD	1959.5	326.4	1079.7	297.3	1085.1	318.0	85.9	313.6	910.7	267.2
CV %	29.5	25.7	54.0	28.2	85.4	30.1	104.2	36.6	38.1	26.4
b	359.4	2.9	253.4	3.0	234.8	2.0	-6.4	-0.1	210.3	2.2
Growth	5.4	0.2	12.7	0.3	18.5	0.2	-7.8	0.0	8.8	0.2
r	0.5		0.8		0.6		-0.4		0.7	

**Pattern of arrivals and prices**

The maximum arrivals of wheat (7976 tons) were found to be arrived just after the harvest of the crop i.e. the month of March (21.65%), April (26.26%), May (16.14%) and June (6.46%) in the regulated market of Madhya Pradesh and rest of the arrivals were found to be distributed in the remaining 8 months of the year. The prices of wheat were found to be more in the month of December (Rs. 91.73/q), January (Rs. 58.80/q), February (Rs. 1.69/q), March (Rs. 3.29/q), April (Rs. 17.67/q) and May (Rs. 28.73/q) as compare to the average annual price of

the wheat (Rs. 1063.0/q) while, the prices of wheat were found less in the month of June (Rs. -27.89/q), July (Rs. -86.49/q), August (Rs. -29.69/q), September, (Rs. -30.66/q), October (Rs. -10.06/q), and November (Rs. -17.11/q) with the average price of wheat in Madhya Pradesh.

There was found weak correlation between arrivals and price in wheat in different months of the year, which was found, might be due to the government purchase the wheat of the farmers on Minimum Support Price (MSP) with extra bonus.

**Table-2** Monthly average arrivals (tons) and prices (Rs./q) in different grade regulated markets in Madhya Pradesh.

S.No.	Months	Grade A		Grade B		Grade C		Grade D		Overall Average	
		Arrivals	Price	Arrivals	Price	Arrivals	Price	Arrivals	Price	Arrivals	Price
1	April	19601 (24.62)	1264 (-5.85)	5925 (24.68)	968 (-84.91)	6331 (41.52)	1123 (65.89)	48 (4.82)	967 (95.53)	7976 (26.62)	1081 (17.67)
2	May	12901 (16.20)	1296 (26.28)	3821 (15.92)	1078 (25.30)	2403 (15.76)	993 (-64.11)	217 (21.92)	999 (127.44)	4835 (16.14)	1092 (28.73)
3	June	5627 (7.07)	1218 (-51.44)	1503 (6.26)	994 (-58.52)	578 (3.79)	975 (-82.83)	36 (3.66)	953 (81.22)	1936 (6.46)	1035 (-27.89)
4	July	2766 (3.47)	1120 (-149.90)	813 (3.39)	1002 (-50.65)	249 (1.63)	1032 (-25.78)	42 (4.23)	752 (-119.63)	967 (3.23)	976 (-86.49)
5	August	2511 (3.15)	1158 (-112.21)	602 (2.51)	1037 (-15.65)	234 (1.53)	1013 (-44.27)	10 (0.99)	925 (53.37)	839 (2.80)	1033 (-29.69)
6	September	3509 (4.41)	1216 (-53.49)	781 (3.25)	1118 (65.66)	289 (1.89)	1009 (-48.18)	191 (19.35)	785 (-86.63)	1192 (3.98)	1032 (-30.66)
7	October	2713 (3.41)	1343 (73.54)	697 (2.90)	1035 (-17.55)	262 (1.72)	989 (-68.78)	67 (6.76)	844 (-27.47)	935 (3.12)	1053 (-10.06)
8	November	3905 (4.90)	1315 (45.43)	1108 (4.62)	1066 (13.63)	415 (2.72)	1027 (-30.88)	101 (10.26)	775 (-96.63)	1382 (4.61)	1046 (-17.11)
9	December	3071 (3.86)	1364 (93.92)	800 (3.33)	1090 (37.25)	353 (2.31)	1192 (134.07)	20 (2.02)	973 (101.70)	1061 (3.54)	1155 (91.73)
10	January	3428 (4.31)	1341 (71.07)	487 (2.03)	1132 (79.38)	264 (1.73)	1206 (148.38)	56 (5.68)	808 (-63.63)	1059 (3.53)	1122 (58.80)
11	February	3624 (4.55)	1306 (36.07)	1129 (4.70)	1072 (19.43)	332 (2.18)	1052 (-5.11)	86 (8.72)	828 (-43.63)	1293 (4.31)	1065 (1.69)
12	March	15959 (20.04)	1296 (26.56)	6342 (26.42)	1039 (-13.36)	3540 (23.22)	1079 (21.59)	115 (11.59)	850 (-21.63)	6489 (21.65)	1066 (3.29)
	Total	79614 100	1270 (0.00)	24005 100	1053 (0.00)	15249 100	1058 (0.00)	989 100	872 (0.00)	29964 100	1063 (0.00)
	SD	5969.4	76.7	2124.5	49.7	1909.0	77.7	65.0	87.1	2482.5	46.2
	Mean	6634.5	1269.8	2000.5	1052.8	1270.7	1057.6	82.4	871.6	2497.0	1063.0
	CV %	90.0	6.0	106.2	4.7	150.2	7.3	78.8	10.0	99.4	4.3
	r		0.1		-0.4		0.2		-0.1		0.2

Figure in the parenthesis shows percent to total arrivals and difference from average price.

## Conclusion

The relationship and pattern in different grade regulated market of wheat in Madhya Pradesh has been considered on the basis of time series data of arrivals and prices for 14 years (2001-2014). The study has exposed an increasing positive trend in arrivals and prices of wheat in all the selected markets. The arrivals in different grade regulated markets shows positive correlation with the prices revealed that as the prices increases the arrivals also increases in the market. But it's not true in the in the case of D grade regulated market, which is might be due to lack of facilities in this particular grade of regulated market.

The maximum arrivals of wheat (7976 tons) were found to be arrived just after the harvest of the crop i.e. the month of March, April, May and June and rest of the arrivals were found to be distributed in the remaining 8 months of the year. The weak correlation between arrivals and price has been found in different months of the year, which was found, might be due to the government purchase the wheat of the farmers on Minimum Support Price (MSP) with extra bonus.

It is clear from the above discussion that arrivals and prices of wheat rising from year to year, but farmers forced to sell their entire production in a few months just after harvest of the crop at non remunerative prices. Therefore, it is urgent need to advancement and development of all the markets in line of A grade markets having all the fundamental facility such as storage facility i.e. warehouse, cold storage, Ripening Chamber including transportation facility as truck, buses, trains and basic facilities such as electric weighment, graders, electric display board, canteen, parking, post office, bank, ATM, with rest house, drinking water, electricity, toilets and internal roads. There is also a need of online all the markets (e-facilities) so that farmers can get remunerative prices of their product.

**Conflict of Interest: None declared**

## References

- [1] Asmatoddin Mohd., Satpute T.G. and Maske V.S., (2009) *International Journal of Agricultural Sciences*, 2, 428-430.
- [2] Acharya S.S., Chand R., BIRTHAL P.S., Kumar Shiv and Negi D.S., (2012) Food and Agriculture Organization, Rome, 1-67.
- [3] M.P. State Agricultural Marketing Board i.e. MPSAMB, available on

[www.mpsamb.com2015](http://www.mpsamb.com2015)

- [4] Lewis (1963) *Economic Events, Ideas, and Policies: The 1960s and After:320*.
- [5] Jodalli J. (2013) Market Dynamics and Price Behaviour of Groundnut in North Karnataka- An Econometric Approach, etd.uas.edu