Trends in Arrival and Prices of Major Agricultural Commodities in APMC, Satara of Western Maharashtra

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Abstract: The APMCs were established by state government for regulating the marketing of different kinds of agriculture produce for the same market. The market information relating to market prices and arrivals over a period of time helps the cereal growers to take decision about the future production pattern and sale of agricultural commodities in the market during specific period. In Maharashtra state crops are generally marketed in regulated markets, these regulated markets are called as APMC (Agriculture Produce Market Committee). Agriculture Produce Market Committee's help the farmer in disposing of their produce in the market smoothly by reducing the exploitation level and to promote fair trade by providing infrastructural facilities to farmers. The information about organization of APMC was collected from official records of the market committee. Trends in arrivals and prices, seasonal indices, coefficient of variability were estimated by using appropriate statistical technique. The study of APMC, Satara revealed that, organizational structure and composition was established well according to the Maharashtra Agricultural Produce Marketing (Regulation) Act, 1963. The open auction method was strictly followed in the market, the overall conduct and law and administrative promptness was seen satisfactory. The analysis of trends in arrivals and prices revealed that, arrivals of jowar, wheat, soybean, Pigeon pea and chick pea had showed fluctuations yearly during the period under study (2000-01 to 2011-12). The prices of all commodities were found to be increased over entire period.

This study suggested that the jowar growers shall bring jowar for sell in the APMC, Satara during the month of November to January and the wheat growers shall bring wheat for the sell in the APMC, Satara during the month of March to May and in case of soybean, the growers shall bring soybean for sell in APMC, Satara during December to January. Pigeon pea can be brought for sell in APMC, Satara during the month of January to March and the chick pea during December to January in order to get good prices for their produce.

Keywords: APMC, CGR, Seasonal Indices and Inter variability

Jl Classification: M 38, O16, O 40, Q13, Q 21

INTRODUCTION

The APMCs were established by state government for regulating the marketing of different kinds of agriculture and produce for the same market. The market information relating to market prices and arrivals over a period of time helps the cereal growers to take decision about the future production pattern and sale of agricultural commodities in the market during specific period.

In Maharashtra state crops are generally marketed in regulated markets, these regulated markets are called as APMC (Agriculture Produce Market Committee). Agriculture Produce Market Committee help the farmer in disposing of their produce in the market smoothly by reducing the exploitation level and to promote fair trade by providing infrastructural facilities to farmers. It is necessary to study the role played by regulated markets to sustain the agri-business in India (Rangi *et al.*,1997).

The variation in prices of agriculture commodities has been one of the major factors affecting the income levels of the Indian farmers. The obejectve of establisheing APMC by state Government could not given complet solution for regulating activities of working in the state. It is observed that the increased agricultural production every year, the arrivals in the market also increased and prices also increased along with time. Normally every year increasing trend is seen in arrivals and prices of agricultural commodities. But,fluctuations in prices of agricultural commodities are greatest obstacle in the way of agricultural development (Gadre and Bonde, 2006). The knowledge on the interrelations between the arrivals and prices of farm product is required for assessing the extent of price fluctuations over time. Therefore, an analysis of arrivals and prices over time is important for formulating a sound agricultural price policy.

In recent years the seasonal variability in arrivals and prices has created serious marketing problems to farmers, consumers, planners and policy makers (Kumar and Raju,1999). The seasonality in arrivals are resulted in gluts which occurred in peak season resulting in unfavorable prices to grower in peak season and high prices to consumer in off season (Varghese, *et al.,*1998)). Thus, it is necessary and important to protect the farmers from sudden fall in prices and consumers from sharp rise in price. Abnormally, low prices may be reduce the input application because of lower financial condition of farmers and will result in lower product and ultimately the lower market arrivals. Due to the fluctuations in agriculture prices, there is instability in income of the farmers, which results in instability in agricultural investment. Thus, to stabilize the agriculture industry there is a need to stabilize the agricultural prices.

The acreage under jowar, wheat, pigeon pea, chick pea and soybean was substantial in Satara district and the arrival of these commodities were remarkable. However, the fluctuations in arrivals and prices of these commodities were noticed in APMC, Satara and negative shift in prices leads to shift in acreages under these crops as well as the arrivals of these commodities. To arrest the shift in acreage under these food grains and oilseeds crops it is essential to have stability in the prices and arrivals of these commodities. In this context the present study entitled "Price Analysis of major agricultural commodities in APMC, Satara" was undertaken in order to know the price behavior of major agricultural commodities. Considering the above facts present study was undertaken to estimate the trends in arrival and prices, seasonal indices and variability in arrival and prices of major agricultural commodities of Satara APMC.

METHODOLOGY

The study was based on the data of arrivals and prices of selected agricultural commodities in APMC Satara for the period of last 12 years i.e. from 2000-01 to

2011-12. The selection of APMC, Satara was selected purposively. Tht five major agricultural commodities from the cereals, pulses and oilseed crops were considered on the basis of maximum arrivals of commodities. The data required for this investigation were collected from the office records of APMC, Satara. Annual Reports of the APMC, District statistical Abstract and Handbook of basic statistics of Maharashtra.

Analytical procedure

Compound growth rate

The growth rates were estimated by using following type exponential function

$$Ya = ab^t \text{ and } Yp = ab^t$$

Where,

Ya and Yp = Yearly arrivals and prices, respectively.

a = Intercept/constant

b = Trend coefficient / Régression coefficient

t = Time variable.

From the estimated function the compound growth rate (CGR) was calculated as –

CGR = [Antilog (b)-1] × 100

Coefficient of variation

Co-efficient of variation in arrival and prices was computed for all the selected commodities, so as to see the variation and predict the behavior of prices whether they were stable involving less risk and uncertainty and vice-versa. The formula used for estimating Co-efficient of variation was as bellow,

$$\text{C.V. \%} = \frac{\text{Standard deviation}}{\text{Mean } (x)} \times 100$$

Seasonal index

Seasonal indices were used to measure of seasonal variation. Seasonal index for each month is calculated. Thus specific seasonal index refers to the seasonal changes during a particular year. Seasonal indices are given as percentage of their average.

Seasonal variations in arrival and prices were calculated by simple average method.

SI = [Monthly average of given months ÷ Average of monthly averages] × 100

RESULT AND DISCUSSION

I. Trends in annual arrivals and prices of major agricultural commodities

It can be revealed from the Table 1, the annual compound growth rate of arrivals in case of jowar were found negative non significant; while in case of wheat (39.69 per cent) were turned out to be positive but not significant for both the commodities during the period under study. The annual compound growth rates of arrivals in case of soybean (84.18 per cent) and pigeon pea (82.50 per cent) were found positive and highly significant. This indicated that there was increase in the annual arrivals by 84.18 and 83.50 per cent per annum, in soybean and pigeon pea in APMC, Satara. In case of gram (47.66 per cent) the CGRs were positive but non-significant.

The annual compound growth rates of prices in the case of jowar (6.05 per cent), wheat (9.65 per cent), soybean (8.56 per cent), pigeon pea (11.70 per cent) and chick pea (5.49 per cent) were positive growth rate and out of which wheat, soybean, pigeon pea and chick pea were highly significant at 1 per cent level, indicating thereby, the prices of jowar, wheat, soybean, pigeon pea and chick pea were increasing by 6.05, 9.65, 8.56, 11.70 and 5.49 per cent per annum, respectively during the period under study. In case of jowar the annual growth rate was increased at the rate of 6.05 per cent and significant level of the growth rate at 10 per cent.

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Table 1
Growth rates in arrivals in prices of major agricultural commodities in
APMC, Satara (2000-01 to 2011-12)

Crops	Arrivals			Prices		
	CGR(%)	R^2	't' value	CGR(%)	R^2	't' value
Jowar	-6.13[NS]	0.03	-0.54	6.05*	0.28	1.96
Wheat	39.69[NS]	0.23	1.74	9.65***	0.93	11.49
Soybean	84.18***	0.62	4.03	8.56***	0.90	9.43
Pigeon pea	82.50***	0.52	3.30	11.70***	0.94	12.16
Chick pea	47.66[NS]	0.25	1.82	5.49***	0.81	6.53

'***' indicates significance at 1 per cent level.

The value of coefficient of determination (R^2) for arrivals showed that model explained (R^2) more than 50 per cent variation in arrivals of soybeans and pigeon pea for the period from 2000-01 to 2011-12. There was absence of any trend in arrivals of jowar as the coefficient of determinations (R^2) was less than 10 per cent. The value of coefficient of determinations (R^2) in the case of prices of wheat, soybean, pigeon pea and chick pea ranged from 0.80 to 0.95 per cent. It implies that more than 80 per cent variations in wholesale prices of these agricultural commodities were explained by explanatory variables included in the model.

II. Seasonal indices of arrivals and prices of major agricultural commodities

From the Table 2, the maximum arrivals of jowar were found in the month of February (559.49) and minimum price index was noticed in the month of January (8.11). The seasonal indices regarding prices revealed that the price index for the month of November (395.11) was the highest followed by March (364.31) and April (352.03). It was lowest in the month of February (193.84). In case of wheat, it was seen that the seasonal indices for wheat arrivals were more during the month of April (443.76) followed by September (381.37), while it were lowest during the month of November (21.67). In case of prices the maximum seasonal indices were noticed in the month of May (338.13) and minimum in the month of April (234.54).

The highest seasonal indices of arrivals of soybean were observed during the month of June (438.45) followed by November (381.61) and lowest during the month of August (12.56). In case of prices, maximum price indices were noticed in the month of August (384.17) and it was minimum in the month of November (239.98). In case of pigeon pea, the maximum arrival indices were found in the month of November (1610) and minimum in the month of May (370.23). In case of pigeon pea it is observed that there is no arrival of pigeon pea in the month of April, June, August, September, January and March. In case of prices, the maximum indices for pigeon pea in the month of May (2099.45) and minimum in the month of April, June, Aug, Sept, Jan and March (0) because there is no arrival pigeon pea in the market so there is also no price for pigeon pea.

In case of chick pea the maximum arrival indices were found in the month of July (382.03), November (216.42) and in the January (185.45) and the minimum was found in the month of May (35.17). In case of price indices it was maximum during the month of December (238.22) followed by September (215.13) and minimum price indices were found in the month of February (166.66).

III. Variability in arrival and prices of selected agricultural commodities in APMC, Satara

The inter year variability in arrivals of selected agricultural commodities in APMC, Satara were estimated over twelve years from 2000-01 to 2011-12 and presented in Table 3.

In case of arrivals of jowar the variation ranged from 48.71 per cent to 183.95 per cent during the year (2000-01 to 2011-12). From this it was found that the average variability of arrivals of jowar is quite high. The maximum variability in arrivals of jowar was found during the year 2005-06 (183.95 per cent) and it was minimum for the year 2007-08 (48.71 per cent).

The market arrivals of wheat in APMC, Satara revealed that the maximum variability in arrivals of wheat during the year 2009-10 (107.73 per cent) and it was found to be lowest in the year 2004-05 (47.27 per cent). In case of yearly arrivals of soybean, it was revealed that there was maximum variability in arrivals of soybean during the year 2007-08 (99.88 per cent) and lowest variability was found in the year 2001-02 (28.87 per cent).

In APMC market, Satara the analysis of variability of arrivals of pigeon pea shown that, the maximum variability was found in pigeon pea (above 53.23 per cent) for the year 2004-05. It is because of during the primary study years there is no arrival of pigeon pea in APMC, Satara during the year 2000-01 to 2003-04. In case of chick pea, the variability of arrivals was maximum during the year 2009-10 (196.48 per cent) and minimum variability in arrivals of chick pea for the year 2001-02 (39.47 per cent).

IV. Inter year variability in prices of selected agricultural commodities in APMC, Satara (2000-01 to 2011-12)

It is revealed from the Table .4, in case of yearly price variability of jowar the maximum price variability was found during the year 2009-10 (53.67 per cent) and it is minimum during the year 2000-01 (45.28 per cent). In case of price variability of wheat it was revealed that the maximum variability was found during the year 2008-09 (51.75 per cent) and it was minimum in the year 2004-05 (38.93 per cent). In case of wheat from recorded data by APMC, Satara it is found that in the year 2001-02 there is no

Table 2
Seasonal indices of arrivals and prices of the agricultural commodities in APMC, Satara (Per cent)

Month	Jowar		Wheat		Soybean		Pigeon pea		Chick pea	
	Arrivals	Prices	Arrivals	Prices	Arrivals	Prices	Arrivals	Prices	Arrivals	Prices
APRIL	296.03	352.03	443.76	234.54	288.12	331.00	0.00	0.00	77.71	162.12
MAY	75.84	290.62	95.10	338.13	62.82	334.06	370.23	2099.45	70.35	174.47
JUNE	239.61	268.96	308.78	273.20	438.45	334.06	0.00	0.00	119.95	170.81
JULY	59.75	239.21	269.05	309.20	177.14	268.25	1592.00	1259.67	382.03	183.43
AUG	231.40	239.21	120.38	264.85	12.56	384.17	0.00	0.00	160.02	192.77
SEPT	93.98	288.48	381.37	236.56	360.14	315.27	0.00	0.00	107.04	215.13
OCT	279.69	209.93	349.11	279.63	266.96	274.66	1036.65	1193.69	163.31	211.95
NOV	150.94	395.11	21.67	314.99	381.61	239.98	1610.51	901.57	216.42	201.14
DEC	248.12	333.47	227.52	283.88	240.41	279.13	555.35	836.78	160.88	238.22
JAN	8.11	207.08	303.96	258.90	195.28	322.61	0.00	0.00	185.45	183.52
FEB	559.49	193.84	201.21	255.12	86.06	316.11	740.47	1823.53	104.05	166.66
MAR	217.77	364.31	44.54	305.35	251.26	345.20	0.00	0.00	91.04	182.79

Table 3
Yearly variability in arrivals of agricultural commodities in APMC, Satara (2000-01 to 2011-12)

Years	Jowar		Wheat		Soybean		Pigeon pea		Chick pea	
	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)
2000-01	150.67	58.48	71.33	49.49	-	-	-	-	-	-
2001-02	247.67	49.55	-	-	7.00	28.87	-	-	598.00	39.47
2002-02	281.66	65.28	97.66	58.48	6.00	44.38	-	-	123.75	61.73
2003-04	171.25	75.21	163.33	51.52	5.00	51.96	-	-	166.67	50.53
2004-05	2163.50	53.37	110.50	47.27	147.02	69.46	16.00	53.23	189.00	71.91
2005-06	140.43	183.95	27.25	77.94	49.25	66.62	47.50	42.68	235.00	126.70
2006-07	23.00	49.89	83.67	78.48	49.25	87.55	71.00	28.87	500.34	67.17
2007-08	17.67	48.71	80.33	87.60	44.60	99.88	71.00	28.87	103.42	76.92
2008-09	294.00	92.22	257.75	64.09	428.42	80.99	23.00	41.65	238.20	86.97
2009-10	2292.50	107.05	136.25	107.73	53.29	64.96	20.00	28.87	466.00	196.48
2010-11	195.00	57.27	80.60	66.57	103.72	69.13	10.00	28.87	83.00	95.44
2011-12	135.00	51.76	51.40	77.42	61.75	71.90	28.00	28.87	66.45	85.99

arrival during the year so it impart maximum variability in the arrival and prices of wheat during the year 2000-12.

While in case of price variability of soybean it was maximum during the year 2008-09 (52.53 per cent) and lowest in the year 2001-02 (28.87 per cent). In the year 2000-01 there is no arrival of soybean in APMC market, Satara, so it has significant impact on variability of arrivals and prices of soybean during the year 2000-12. In APMC market, Satara the analysis of variability of arrivals of pigeon pea showed that, the maximum variability in prices of pigeon pea during the year 2004-05 (45.23 per cent). During the primary study years (2000-04) there is no arrival of pigeon pea in APMC, Satara. In case of price variability of chick pea there was also maximum price variability during the year 2007-08 (51.74 per cent) and it was minimum in the year 2001-02 (38.93 per cent). There in maximum variability in arrivals and prices of chick pea during primary study years (2000-01 to 2003-04) because of during year 2000-01 there is no arrival of chick pea in APMC, Satara.

IV. Inter year variability in prices of selected agricultural commodities in APMC, Satara (2000-01 to 2011-12)

It is revealed from the Table .4, in case of yearly price variability of jowar the maximum price variability was found during the year 2009-10 (53.67 per cent) and it is minimum during the year 2000-01 (45.28 per cent). In case of price variability of wheat it was revealed that the maximum variability was found during the year 2008-09 (51.75 per cent) and it was minimum in the year 2004-05 (38.93 per cent). In case of wheat from recorded data by APMC, Satara it is found that in the year 2001-02 there is no arrival during the year so it impart maximum variability in the arrival and prices of wheat during the year 2000-12.

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Table 4
Yearly variability in prices of agricultural commodities (2000-1 to 2011-12)

Years	Jowar		Wheat		Soybean		Pigeon pea		Chick pea	
	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)
2000-01	1033.34	45.23	583.34	45.31	-	-	-	-	-	-
2001-02	1135.00	45.31	0.00	0.00	1025.00	28.87	-	-	1597.50	38.93
2002-03	1020.00	45.25	555.00	45.26	1187.50	38.93	-	-	1642.50	49.24
2003-04	681.50	51.11	680.00	45.56	1287.34	45.23	-	-	1649.00	45.24
2004-05	595.00	49.24	837.50	38.93	1401.20	51.52	1186.67	45.23	1688.00	51.49
2005-06	692.86	51.53	823.56	45.85	1156.00	49.32	1612.50	38.93	1754.00	45.82
2006-07	766.67	45.32	1062.50	38.95	1341.75	49.36	1850.00	28.87	2465.34	52.92
2007-08	1316.00	45.28	1185.00	51.53	1782.40	51.93	2050.00	28.87	2173.15	51.94
2008-09	1255.00	51.92	1228.58	51.75	2014.28	52.53	2500.00	39.01	2367.50	46.20
2009-10	1056.00	53.67	1151.43	51.63	2237.14	52.29	3040.00	28.87	2154.44	45.59
2010-11	1437.50	52.15	1376.67	52.59	2054.28	51.65	3500.00	28.87	2084.00	39.91
2011-12	2446.67	45.28	1415.00	57.17	2225.00	49.36	2800.00	28.87	2989.00	35.87

Table 5
Monthly variability in arrivals of agricultural commodities (2000-2012)

Years	Jowar		Wheat		Soybean		Pigeon pea		Chick pea	
	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)	Mean (qtls)	CV (%)
April	335.25	70.80	176.86	70.11	114.67	66.25	-	-	89.84	67.39
May	126.29	118.93	39.50	72.92	25.00	28.87	10.00	28.87	97.60	68.01
June	399.00	70.65	128.25	86.69	174.50	39.42	-	-	138.67	101.67
July	99.50	56.17	111.75	67.79	70.50	42.82	43.00	47.81	625.00	146.52
August	385.33	84.09	50.00	38.92	5.00	28.87	-	-	185.00	108.66
September	156.50	55.17	158.40	83.19	143.33	64.44	-	-	123.75	61.56
October	465.75	78.57	145.00	48.19	106.25	115.17	28.00	37.57	188.80	65.21
November	251.34	84.11	9.00	28.87	151.88	181.28	43.50	61.97	250.20	107.52
December	413.17	77.92	94.50	60.99	95.68	135.95	15.00	60.44	186.00	113.97
January	13.50	53.24	126.25	79.44	77.72	83.84	-	-	214.40	79.80
February	931.67	65.89	83.57	84.31	34.25	63.44	20.00	28.87	120.29	79.06
March	362.63	183.59	18.50	78.02	100.00	50.00	-	-	105.25	332.84

analysis of variability of arrivals of pigeon pea showed that, the maximum variability in prices of pigeon pea during the year 2004-05 (45.23 per cent). During the primary study years (2000-04) there is no arrival of pigeon pea in APMC, Satara.

In case of price variability of chick pea there was also maximum price variability during the year 2007-08 (51.74 per cent) and it was minimum in the year 2001-02 (38.93 per cent). There in maximum variability in arrivals and prices of chick pea during

primary study years (2000-01 to 2003-04) because of during year 2000-01 there is no arrival of chick pea in APMC, Satara.

V. Intra-year variation of arrivals and prices of major agricultural commodities in APMC, Satara

In the APMC market, Satara, the analysis showed that (Table 5) there was much variability in market arrivals of jowar. It was maximum during the month of March (183.59 per cent) and lowest in the month of January (53.24 per cent). The information depicted in Table revealed that variability in wheat was maximum during the month of June (86.69 per cent) while it was minimum during the month of November (28.87 per cent).

The market arrivals of soybean revealed that variability remained high (above 100 per cent) during October to December. The maximum variability in arrival of soybean in market was found during the month of November (181.38 per cent) and minimum during the month of May and August (28.87 per cent). In case of pigeon pea arrivals, the maximum

variability is arrivals were found in the month of November (61.97 per cent). The variability in arrivals of pigeon pea was maximum because of their was some month found during the year 2000-12 (April, June, August, September, Jan and March) in that month their no arrivals of pigeon pea in the APMC, Satara, market.

The market arrivals of chick pea revealed that the variability remained high (above 60 per cent). It was found that the maximum variability in arrivals of chickpea during the month of March (332.84 per cent), while it was minimum in the month of September (61.56 per cent).

VI. Intra-year variation in prices of major agricultural commodities in APMC, Satara

The intra year variability in prices of selected agricultural commodities in APMC, Satara were estimated over twelve years from 2000-01 to 2011-12 and presented in Table 6.

The maximum variability was found in case of prices of jowar in the month of March (63.91 per cent) and minimum in the month of January (28.87

Table 6
Monthly variability in prices of agricultural commodities (2000-01 to 2011-12)

Years	Jowar		Wheat		Soybean		Pigeon pea		Chick pea	
	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)	Mean (prices)	CV (%)
April	1232.50	62.72	912.15	61.50	1981.67	47.20	-	-	1865.84	53.51
May	1017.50	53.40	1315.00	56.02	2000.00	28.87	3500.00	28.87	2008.00	53.05
June	941.67	46.47	1062.50	50.34	2000.00	28.87	-	-	1965.84	52.92
July	837.50	39.79	1202.50	51.84	1606.00	40.31	2100.00	39.25	2111.17	53.29
August	837.50	39.79	1030.00	39.63	2300.00	28.87	-	-	2218.67	53.83
September	1010.00	41.07	920.00	56.98	1887.50	40.45	-	-	2476.00	53.58
October	735.00	51.57	1087.50	50.02	1644.38	54.52	1990.00	42.62	2439.40	53.27
November	1383.34	58.91	1225.00	28.87	1436.75	54.77	1503.00	65.24	2315.00	53.44
December	1167.50	54.45	1104.00	46.20	1671.12	49.38	1395.00	39.43	2741.72	57.59
January	725.00	28.87	1006.88	54.11	1931.42	53.39	-	-	2112.20	50.55
February	678.67	46.18	992.15	55.23	1892.50	51.00	3040.00	28.87	1918.15	52.39
March	1275.50	63.91	1187.50	49.58	2066.67	45.29	-	0.00	2103.75	50.83

per cent). This indicates more or less stability in the prices of jowar. In case of price variability in wheat was maximum in the month of September (56.98 per cent) while it was lowest in the month of November (28.87 per cent) followed by August (39.63 per cent). In case of price variability of soybean there was maximum variability in the prices during the month of November (54.77 per cent) and minimum during the month of May, June and August (28.87 per cent). In case of price variability of pigeon pea form analysis it was found that, the maximum price variability of pigeon pea during the month of November (65.24 per cent) and October (42.62 per cent) and minimum variability during the month of May (28.87 per cent).

The price variability of chickpea revealed that, maximum variability in the prices of chick pea was found during the month of December (57.59 per cent) and minimum price variability was found during the month of January (50.55 per cent).

CONCLUSIONS

The prices of wheat, soybean, pigeon pea and chick pea increased significantly during the period under study were noticed in the APMC, Satara..The inverse relationship between arrivals and prices was noticed for jowar, wheat, soybean, pigeon pea and chick pea which indicated that the increase in arrivals lowered the prices of these commodities. The more variability was observed in the arrivals of jowar, wheat, soybean, pigeon pea and chick pea due to fluctuations in the production.

Policy Implications: The study undertaken thus, can be summarized into following few policy implications that emerges for consideration

1) The Chairman and Secretary of APMC may be empowered for the effective control over the market functionaries. There should be a provision in the Act to prohibit the Commission agents from operating as traders in the market simultaneously and the State Government and State Marketing Board may spend some amount received in the form of supervision cost and contribution from APMCs for their development activities in the market yard.

2) On the basis of the study results, it can be suggested that the jowar growers bring jowar for sell in the APMC, Satara during the month of November to January and the wheat growers shall bring wheat for the sell in the APMC, Satara during the month of March to May and in case of soybean growers shall bring soybean for sell in APMC, Satara during December to January. Pigeon pea can be brought for sell in APMC, Satara during the month of January to March and the chick pea during December to January in order to get good prices for their produce.

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