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In Bhiwani district of Haryana by traders role of market information system for gram crop

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Abstract

The Bhiwani area in Haryana, which includes Siwani and Tosham, is a good place to grow gram. Blocks were chosen on purpose to get the most gram crops. Also, the markets of Bhiwani, Dadri, Siwani, Loharu, and Tosham were picked to look into the marketing data and boundaries of gram marketing. Forty sellers from four controlled markets spread out over two blocks in Bhiwani district were picked at random to look into a range of marketing issues. Within the Bhiwani area, researchers discovered that sellers knew Rank I, II, III, and IV about the major market and the reference/other market's costs and changes. In the Bhiwani area, sellers who knew each other in other markets were good sources of information about the market. The daily prices were written down by hand and put on a board so farmers who came to the market could see them and use them. Information is distributed through a variety of media, including neighbours, newspapers, and relatives. Approximately 68% of traders in the selected markets had difficulties due to a lack of information in the proper format.

Keywords: Market Information System, Bhiwani, Traders, Regulated markets

Introduction

The Marketing Information System is made up of four parts: (MDSS), the Internal Records, the Marketing Intelligence, and the Marketing Research. Businesses all over the world use their internal records to keep track of things like orders, sales, prices, costs, product amounts, receivables, payables, and more. It was defined by Kotler and Armstrong (2010) as a group of tools and sources that managers use every day to stay up to date on important changes in the marketing world. Marketing Information Systems are made up of people, machines, and processes that work together to gather, sort, analyze, and send out correct and up-to-date data so that the right people in charge of marketing can use it to make better plans, strategies, and controls (Kotler and Keller 2012).

Managers get daily reports on marketing trends from market intelligence tools (Kotler and Armstrong, 2010). For the social and economic actions that finish the growth cycle, information is very important. There have been changes in agriculture, industry, and IT in the growing economy (Dhankar, G. H. 2003).

To make sure that economic changes work and that the country's output grows quickly, the Indian government has put more focus on the food and agriculture sectors as well as the IT industry. It is possible for pulses to fix nitrogen from the air in the soil, and they are often grown with other crops to keep or repair soil nutrients. Many pulses are grown, including urd (Vigna mungo), mung (Vigna radiate), matar (peas) (Pisum sativum), are the most important pulses.

It may flourish in several regions, while it prefers a temperate, chilly, and arid environment with temperatures between 20° and 25°C with precipitation of 40-50 cm. It can be grown alone or in combination with wheat, barley, linseed, and mustard. Five hundred thousand hectares are currently grown with gram. In 2015-16, it produced

42,000 tons and 646 kg/ha. The current study looks at the current market information system, how and how much players share and use current formal information, the problems with the current formal information system, and suggests options.

Review of Literature

Based on their 2000 study of how fruits and veggies are sold in Bangalore, Subrahmanyam and Mruthyunjaya suggested that market data and intelligence should be shared through all available modes of communication to improve the marketing of fruits and vegetables.

Researchers Kiresur et al. (2001) studied systems for decision support (DSS) for guessing what would happen with oilseeds in India. They used a system dynamic method to take into account how complicated agriculture is and how it is linked to other parts of the economy both forward and backward. This is a computer-aided structure modeling tool called the system dynamics method that clearly takes into account effects that change over time. The simulation indicated that a total of 15 million tons of edible oils will be required, resulting in a net deficit of approximately 2.7 million tonnes (MT) of edible oils available for purchase in the United States by 2010. The simulation findings indicated that the model is applicable for military planning, since the simulated data closely mirrored those of the actual system..

India's agriculture marketing information system network (Agmarknet) was looked into by Dhankar in 2003. He discovered that market information was disseminated to nearly all states and union territories to assist market participants, including farmers, merchants, and consumers. The material was gathered and distributed through traditional routes, causing needless delays in its distribution to several businesses, thus impacting their financial interests. The current market information system requires improvement by integrating all agricultural goods market committees, wholesale markets, state agriculture marketing boards, and department of promotion and inspection (DMI) with the Ministry of Agriculture. This method facilitates more efficient and rapid information dissemination. Between 2000 and 2002, the Department of Agriculture and Cooperation under the Union Ministry of Agriculture permitted the National Informatics Center Network (NICNET) to establish connections for 810 nodes via its affiliated agency, DMI.

Gunatilke (2003) said that in Sri Lanka, the private sector was mostly responsible for output and marketing, while the state sector helped them and raised the living standards of farmers. The market information system could not work without help from the business industry.

Staatz et al. (2011) found that investing in MIS has been a good idea in the past for three reasons: First, to make sure that everyone has an equal amount of buying power in the food system. This will transform the market from a the monopsony or oligopoly into a more competitive framework, since farmers will have enhanced market awareness. Improved pricing for farmers will result in increased production over time. Second, information about the market helps it work better and lets people make private choices in the short and long run. Better knowledge can help with geographical and temporal arbitrage of current production in the short term by making it easier to find new markets and lower the cost of searching. Over time, farmers, traders, processors, and consumers who make better decisions based on more information can improve the allocation of resources. This can be done by changing production and consumption to better meet the actual needs of consumers and the opportunity cost of the resources used to make those goods. Lastly, MIS is thought to be very important for setting public policy and giving information for running government programs.

MATERIALS AND METHODS

Primary sources were used to get information on prices, arrivals, spread, utilization, and limits for this study. Interviews with employees were done using an organized schedule that had already been tried and was made just for the job. The Bhiwani area was picked on purpose because it had the most production under Gram. The two blocks with the most land were picked. They are Siwani and Tosham in the Bhiwani district. Five controlled shops were picked from the Bhiwani area because of how many people come there. A chance drawing was used to pick five shops from two blocks. The interview method was created so that a well-structured plan could be used to get full and reliable information. A stratified random sample method was used to look into where 50 buyers from regulated markets got their information about the farming market and how they used it. To get a better idea of how the agricultural commodity market information tools work, a tabular study was done. We looked into what kinds of market information tools there are, how they work, where they come from, and how players use them.

RESULTS AND DISCUSSIONS

People who trade in Haryana's Bhiwani District Know a Lot About the Agricultural Market Information System (Table 1): The traders in this group knew a lot about market information in general. Be aware of the prices and arrival in references or alternative markets including I-Rank and II-Rank market data, whereas the primary market in Bhiwani district consisted of arrivals and prices that constituted III-Rank market information. Over 75% of sellers were regularly told about new entries and prices, which is something that should be mentioned. A market information system for farming goods was known to traders in the area that was growing crops. In Meghalaya, Hatai and Panda (2015) found the same things.

Table 1 : Traders' understanding of regulated market data in each district of Haryana (n=50)

Bhiwani district									
Sr. No.	Type of market information	Degree of Awareness						Total Score	Rank
		Always		Sometime		Rarely			
		Response	Score	Response	Score	Response	Score		
1	Arrivals in reference/other market (Bhiwani and Dadri)	41 (82)	123	6 (12)	12	3 (6)	3	138	II
2	Arrivals in main market (Tosha and Siwan)	33 (66)	99	14 (28)	28	3 (6)	3	130	III
3	Prices in reference/other market (Bhiwani and Dadri)	44 (88)	132	3(6)	6	3 (6)	3	141	I
4	Prices in main market	33 (66)	99	14 (28)	28	3 (6)	3	130	III
5	Area under crops	28 (56)	84	18 (36)	36	4 (8)	4	124	VI
6	Production	24 (48)	72	13 (26)	26	13 (26)	13	111	V
7	Grade/Standard required	19 (38)	57	21 (42)	42	10 (20)	10	109	VI

Table 2: Sources of the regulated marketplace information system for traders in several districts of Haryana (n=50)

Bhiwani district									
Sr. No.	Sources	Degree of Awareness						Total Score	Rank
		Always		Sometime		Rarely			
		Response	Score	Response	Score	Response	Score		
1	Newspaper	14 (28.0)	42	17 (34.0)	34	19 (38.0)	19	95	III
2	Television	9 (18.0)	27	10 (20.0)	20	31 (42.0)	31	78	IX
3	Radio	8 (16.0)	24	11 (22.0)	22	31 (42.0)	31	77	X
4	Magazine	10 (20.0)	30	17 (34.0)	34	23 (46.0)	23	87	V
5	Internet	10 (20.0)	30	15 (30.0)	30	25 (50.0)	25	85	VI
6	Fellow traders	36 (72.0)	108	9 (18.0)	18	5 (10.0)	5	131	II
7	Contact in other market	38 (76.0)	114	9 (18.0)	18	3 (6.0)	3	135	I
8	Announcement by APMC	10 (20.0)	30	17 (34.0)	34	23 (46.0)	23	87	V
9	Govt. publications	8 (16.0)	24	14 (28.0)	28	28 (56.0)	28	80	VIII
10	Display board in APMC	11 (22.0)	33	17 (34.0)	34	23 (46.0)	23	90	IV
11	Bulletins by APMC	10 (20.0)	30	15 (30.0)	30	25 (50.0)	25	85	VI
12	Market Intelligence Cell	8 (16.0)	24	9 (18.0)	18	33 (66.0)	33	75	XI
13	APMC tender data for previous days	9 (18.0)	27	14 (28.0)	28	27 (54.0)	27	82	VII

Source of regulated marketplaces information systems for vendors in the Bhiwani district of Haryana:
Table 2 shows that traders' links in other markets and other traders were the main ways they learned about landings and prices in the market. I and II were the next most common ways to get market information. More than 70% of traders in the Bhiwani district regularly got market information from other sellers and friends in other markets. A newspaper (III-rank), APMC display boards (IV-rank), APMC notices (VI-rank), and magazines were some of the most important ways for dealers to get market information in the Bhiwani area. In Karnataka (2009), Amrutha and Hugar found the same thing, and in Meghalaya (2015), Hatai and Panda found the same thing.

Transmission pattern of market information Method and frequency of distribution:
The market study data showed that all five shops in the Bhiwani area used different ways to send and receive information. There were notice boards, statements in the market yards, fax machines, phones, (AIR), TV, and newspapers that spread market information (Table 3). Air, the newspaper, TV, the internet, the District Information Officer, and

Table 3 : Giving out market knowledge in Haryana's different local markets
(n=5)

Sr. No.	Mode of dissemination	Karnal district	Mahendergarh district	Bhiwani district	Sirsa district
		Response	Response	Response	Response
1	Notices board/Ticker board	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
2	Announcement	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
3	Fax	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
4	Telephone	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
5	Internet	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
6	AIR	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
7	Television	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
8	Posts	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)
9	Newspaper	5 (100.0)	5 (100.0)	5 (100.0)	5 (100.0)

The numbers in parentheses show the ratios of the whole.

Statistical Officers got information about the market every day. Market data was sent to (HSAMB) three times a year: weekly, monthly, and yearly (Table 4) records. Additionally, it was sent to the Deputy Commissioner, the Agriculture Research Station, and the Gram/Zilla Panchayat. Something similar was found in Meghalaya by Hatai and Panda (2015) and Amrutha and Hugar (2009).

Traders' consumption and usage patterns:

Table 5 shows how much sellers use information from the farming market to decide what price to offer and how much to buy. They then use this information to decide how much to sell and how long to store it. It's clear that traders in Bhiwani district used data gathered from the farm market to decide how much to buy, how much to sell, and how much to store. The market data helped traders in Bhiwani district decide when to sell (V-Rank), when to keep (VI-Rank), and the amount to sell (IV-Rank). Hatai and Panda (2015) found the same thing in Meghalaya.

Advantages obtained by traders from market intelligence:

According to the traders in the Bhiwani area, Table 6 shows that using market information helped them. It said that sellers got better deals and higher prices when they used the market information system. When traders in Bhiwani district changed the time of sale (70.0%), the place of sale (62.0%), the way goods were stored (58.0%), and the drying of goods (50.0%), they made the most money.

In Meghalaya, Hatai and Panda (2015) found the same things.

Limits, demands, and suggestions from interested parties about the knowledge traders can't get about the market: Trading people's thoughts on the limits are shown in Table 8. About 68.0% of farmers in the Bhiwani district said they couldn't get accurate information about the market. Traders had trouble getting the information they needed about prices and production in other markets (60% of the time), getting to those markets (40%) and using the right network systems (48%) for those markets. They also had trouble getting information about production barriers (44% of the time), and finally they had trouble getting market intelligence out through communication (36% of the time). In Uttarakhand, Sankar and Singh (2014) found the same things.

Constraints faced by markets: Table 7 displays the limits faced by various market committees in terms of available market information. Approximately 100.0% of the market reported a lack of trained people in the Bhiwani district. In Bhiwani district, members of several market committees reported difficulty in compilation (100.0%), followed by a lack of awareness (100.0%), and an insufficient number of workers (100.0%). Sankar and Singh (2014) observed similar findings in Uttarakhand.

Expectations of stakeholders: Table 9 shows what the commodity sellers expected to learn about the market. It was clear that they thought prices would go up or down in the future (90.0%) in the Bhiwani area. The price in

other nearby markets was (100%), then the price based on type (90%), and finally the method used for handling the harvest (70%). Hatai and Panda (2015) found the same thing in Meghalaya.

Table 4: Allocation of market data for various entities across distinct district markets in Haryana (n=5)

Sr. No.	Mode of dissemination	Bhiwani district	percentage
		Response	percentage
1	State Agricultural Marketing Board	5	100.0
2	Department of Agriculture	5	100.0
3	District Statistical Offices	5	100.0
4	Research Station	5	100.0
5	Newspapers	5	100.0
6	Gram Panchayat	3	60.0

Figures in the parentheses indicate percentages to total

Table 5 : Nature and scope of market information consumption by dealers in each selected district in Haryana (n=50)

Sr. No.	Types of utilizations	Bhiwani district							
		Degree of usage							
		Always		Sometime		Rarely		Total Score	Rank
		Response	Score	Response	Score	Response	Score		
1	**Purchase decisions**								
	Deciding the price to be quoted	34 (68.0)	102	8 (16.0)	16	0 (0.0)	0	118	I
	Deciding the quantity to be purchased	31 (62.0)	93	11 (22.0)	22	0 (0.0)	0	115	II
2	**Storage decisions**								
	Deciding the necessity of storage	14 (28.0)	42	16 (32.0)	32	13 (26.0)	13	87	VII I
	When to store	23 (46.0)	69	14 (28.0)	28	6 (12.0)	6	103	VI
	Quantity to store	27 (54.0)	81	12 (24.0)	24	4 (8.0)	4	109	III

3	**Selling decisions**								
	Quantity to be sold	25 (50.0)	75	15 (30.0)	30	3 (6.0)	3	108	IV
	Deciding where to sell	13 (26.0)	39	14 (28.0)	28	16 (32.0)	16	83	X
	Deciding whom to sell	21 (42.0)	63	13 (26.0)	26	9 (18.0)	9	98	VII
	Deciding when to sell	22 (44.0)	66	17 (34.0)	34	4 (8.0)	4	104	V
4	**Post purchase handling decisions**								
	Necessity of processing	0 (0.0)	0	0 (0.0)	0	41 (82.0)	41	41	XII
	Deciding handling of the commodity	0 (0.0)	0	0 (0.0)	0	41 (82.0)	41	41	XII
	Drying	0 (0.0)	0	11 (22.0)	22	31 (62.0)	31	53	XI
	Grading	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0	XIII
	Transportation	0 (0.0)	0	7 (14.0)	14	35 (70.0)	35	84	IX

Different studies completed so far relevant to the current topic demonstrated that Market Information influences marketing decisions and improves marketing interaction. In India, the Agricultural Marketing Information Network (Agmarknet) discovered that nearly all states and union territories received market information in various forms. This information helped people who used the market, like farmers, traders, and customers. At the same time, the material was gathered and shared using old methods, resulting in further delays in relaying the information to other entities, adversely affecting their commercial interests. As a result, it was necessary to improve the current market information system by

Table 6: Advantages obtained from agriculture market information by dealers throughout several districts of Haryana (n=50)

Sr. No.	Types of benefits from market information system	Karnal	Mahendergarh	Bhiwani	Sirsa
		Response	Response	Response	Response
Obtained Higher Price					
1	Changing place of sale	33 (66.0)	29 (58.0)	31 (62.0)	33 (66.0)
2	Changing time of sale	37 (74.0)	33 (66.0)	35 (70.0)	37 (74.0)
3	Changing post harvest handling	19 (38.0)	13 (26.0)	15 (30.0)	17 (34.0)
4	Drying of produce	29 (58.0)	23 (46.0)	25 (50.0)	27 (54.0)
5	Mode of packing	15 (30.0)	15 (30.0)	19 (38.0)	17 (34.0)
6	Mode of storage	31 (62.0)	27 (54.0)	29 (58.0)	31 (62.0)
7	Changing quantity of sale	17 (34.0)	19 (38.0)	17 (34.0)	21 (42.0)
8	Changing buyer	11 (22.0)	11 (22.0)	15 (30.0)	13 (26.0)

The values in parenthesis represent percentages of the total.

Table 7: Limitations in the administration of market information across many district markets in Haryana (n=5)

Sr. No.	Constraints	Bhiwani	Percentage
		Response	Percentage
1.	Lack of awareness	10	100.0
2.	Insufficient personnel	10	100.0
3.	Non availability of trained personnel	10	100.0
4.	Time consuming	8	80.0
5.	Difficulty in compilation	10	100.0

figures in the parentheses indicate percentage to totalTable 8: Perceived constraints faced by merchants in the current Agricultural Marketing Information throughout several districts of Haryana
(n=50)

Sr. No.	Constraints	Bhiwani	Percentage
		Response	percentage
1.	Information available but not accessible	20	40.0
2.	Costly	10	20.0
3.	Non- availability in time	24	48.0
4.	Non-availability of required information on price/price in other markets/ arrival/ area/ production	30	60.0
5.	Non-availability of information in required form	34	68.0
6.	Inadequate Network for Information flow	24	48.0
7.	Lack of information is a barrier production and traders	22	44.0
8.	Lack of Proper dissemination of Market Intelligence through communication	18	36.0

figures in the parentheses indicate percentage to total

Table 9: Expectations of market information by traders in different district markets of Haryana (n=50)

Sr. No.	Expectations	Bhiwani	Percentage
		Response	Percentage
1.	Projections on prices/ future price movement	45	90.0
2.	Prices in other nearby markets	45	90.0
3.	Variety wise prices	39	78.0
4.	Post harvest handling information for better price	35	70.0

The percentages in parentheses show how many of all the agricultural product markets, wholesalers, state marketing for agriculture boards, and divisions of marketing and inspection (DMI) are linked to the Ministry of Agriculture so that information can be shared quickly and effectively. Both business and trade were hard to start up because people didn't know enough about them. In the past, markets kept records of information in the form of books. Prices for each day were written by hand on blackboards so farmers could use them when they went to markets. Radio, newspapers, and blackboards in market yards were just some of the places where the information was spread. The knowledge about the market was not as useful for farmers as it was for sellers. Traders got a higher price than farmers, which was a benefit. My study found the same thing.

Conclusion

Based on the study's results, traders in Haryana's Bhiwani area should improve their agricultural selling information systems. In the Bhiwani area, traders were made very aware of the problem. None of the farmers in the chosen district knew about the crop's area, output, quality, or scientific post-harvest handling. Traders in Bhiwani district marketplaces were aware of this information, in addition to product details. merchants in chosen district markets relied heavily on contacts in other markets and fellow merchants for market intelligence. Market information was disseminated by traditional announcements and displays, market boards, television transmission, and newspaper publication in Bhiwani district. The traders in Bhiwani district marketplaces found market information to be very useful. Traders benefited from higher prices in the Bhiwani district marketplaces. The dealers reported difficulties in gathering the information in the specified manner. The marketplaces in the Bhiwani region lacked sufficient laborers. The trader's forecasts were grounded in statistics about area and output, succeeded by pricing projections for markets in the Bhiwani district. The MIS must provide farmers and stakeholders with prompt, accurate, and user-friendly information to assist in crop planning and marketing, cultivation techniques, optimal harvesting times and methods, post-harvest management practices, and the timing, locations, and methods for selling agricultural products in the study area.

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