AN EMPIRICAL STUDY ON PROBLEMS FACED BY THE FARMERS IN AGRI-STORAGE FACILITIES WITH SPECIAL REFERENCE TO RURAL BANGALORE

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ABSTRACT

KEYWORDS:
Agricultural storage, Warehousing, mother economy, Agricultural production

India is basically an agri-based country and agro based sector is the most critical sector in term of contributing to economic growth and development. In recent years this sector is facing lot of setbacks i.e, non availability of water to cultivation, non availability of labour force to work in the fields , storage facilities etc . Farmers do not have proper storage facility to store their produce and they need to depend on Government or private warehouses for their storage. Most of them are small and medium farmers and they can't afford for storing their produce and sell the produce when they get good price for their produces. The warehousing capacity available in India, in public, cooperative and private sector is about 108.75 million MTs. For internal and external trade, additional 35 million MTs warehousing capacity is required during the 12 Five Year Plan period for the storage of all major crops. Due to increase in procurement, storage facility becomes major problem. In this background, the present study is to find out the problems faced by the farmers in agri- storage facilities in rural Bangalore. This study also gives various recommendations to solve the above said problem.

INTRODUCTION

Benjamin Franklin had once said that agriculture was the only honest way for a country to acquire wealth, "wherein man receives a real increase of the seed thrown into the ground, in a kind of continual miracle."[1] As though vindicating this opinion, India has always been, and still is, an agrarian economy. No wonder, agriculture has a place of pride in India. It is extolled thus: "Indian agriculture has been India's mother economy. For thousands of years, India's civilization has been built and has grown on the foundations of its agricultural economy. "[2] Warehouse is an important marketing function, which involves holding and preserving goods from the time they are produced until they are needed for consumption.

In other words, warehousing means holding or preserving goods in huge quantities from the time of their purchase or production till their actual use or sale. Warehousing is one of the important auxiliaries to trade. It creates time utility by bridging the time gap between production and consumption of goods.

STATEMENT OF THE PROBLEM

Indian agriculture plays a vital role to meet the requirements of this large country in economic development. Agricultural production should be more. Increase in agricultural production leads to improvement in the storage system. The agriculture sector today is facing serious threats and challenges. There is no production in agriculture sector as like before, as a consequence, the death toll of farmers' suicides is rapidly increasing at an alarming rate. The contribution of agriculture to GDP has been declining year after year. While seeing the price for agricultural products in the market there are so many questions unanswered in the minds of researchers. How are they selling the produces? Why the farmers are not aware of storage facilities? Or are there problems in storage facilities?

The present study aims to find out the solutions for the following questions:

How farmers are storing their produces?

Whether they have any awareness about the storage facilities in rural Bangalore?

Are there any problems in storage facilities?

OBJECTIVES OF THE STUDY

The main objective of the study is to find out the problems faced by the farmers in storing their produces. In that connection other objectives are made to find out their current storing system, awareness about storage facilities and to guide them for better storage.

- To know the farmers current storing system.
- To make them understand the availability of storages for produces.

- To analyze the awareness of storage facilities available for agri produces in Bangalore Rural.
- To study the problems faced by farmers in storing their produces

METHODOLOGY OF THE STUDY

Multistage Sampling Procedure was used to in order to achieve more dependable and reliable results. The study relies on both primary and secondary sources of data. The primary data have been collected from 500 farmers from rural Bangalore area. The detailed and structured Interview schedule has been used to extract information from the sample respondents. The Secondary data have been collected from the various sources like: published and unpublished reports of government and non-governmental organizations, doctoral theses of various institutions, books, journals, magazines and websites.

REVIEW OF PREVIOUS STUDIES

M. Esther Magdalene Sharon, C.V. Kavitha Abirami . . . .[3] examined grain storage capacity in India, The study found that India cannot meet the storage requirements for buffer and operational stocks, public distribution system and farm level storage. Storage is an important link in the entire procurement and distribution system of food grains, produced seasonally but consumed all the year round. Therefore, storage facilities in India need to be strengthened by supplying them with the much-needed scientific storage and drying equipments. The study pointed out the problem solving approach of setting up a community drying-cum-storage complex as suggested by Ojha (1984) has great potential, as it will help to reduce losses and to provide a better return for the grower. They will aid in enhancing India's ability to meet its food security objectives by increasing storage capacity, reducing losses, and increasing the efficiency of purchasing and distributing grain. For safe and scientific storage, a lot of research is required to develop management protocols on grain storage, drying and quality management in silos for our climatic conditions. It will be useful to store grains for FCI, CWC and SWCs in their storage facilities. Importance should be given to the selection of storage site, storage structure, implementation of Integrated Pest Management (IPM), ensure proper aeration of grains followed by regular inspection of grain stock.

Dr. Bhartendu Kr. Chaturvedi and Lieutenant Colonel Anil Raj TA (May, 2015)[4] summaries that unless some very drastic measures are taken to improve the storage capacity of food grains, the wastage of food grains cannot be curbed which otherwise could be utilized for feeding millions of poor people. Researchers found the problem of augmenting the existing storage capacity by construction of new ones through various means both public and private including partnerships. The need of the hour is to revamp the existing storage managementof food grains in the country and make people and agencies accountable and responsible for their jobs of ensuring food security. Integration of the entire storage business in India through MIS would go a long way in ensuring timely decisions are taken for optimum utilization of the existing facilities. Attention should also be paid for recommendations like: Adequate manpower ,to save costs, proper plinths should be constructed in vacant government lands, Hiring charges of FCI ,Poor and reckless management should be dealt with appropriately by decentralized decision making, on adherence of safe and scientific storage methods and the strictest of punishment is to be enforced and accountability fixed.

Gundewadi (2013)[5] in his study on role and performance of cold storages in Indian agriculture indicated that the growth of cold storages in Central region, South region, East region, North region and West region increased by 6 per cent, 7 per cent, 33 per cent, 47 per cent and 7 per cent respectively during the period from 1955 to 2008 which is not uniform region wise and state wise. The consequences of this trend leads to keen and unhealthy competition in certain parts of the country and no adequate storage facilities in other parts of the country.

Nikhil Raj and Bhatia Jayesh (2008)[6] in their research paper "Warehousing Act 2007: Issues and Challenges Perspectives from Basmati Region" researchers seek to examine some of the challenges that are likely to be faced in the implementation of warehouse Act 2007 in India and capture some grassroot voices on how the small farmers can have an assured and enhanced access to agricultural credit through the proposed warehouses and the issuance of negotiable warehouse receipt under the envisaged system. The paper concentrated on understanding some of the challenges as perceived by the key stakeholders in supply chain of rice drawn from various districts in Haryana-traditionally known to be a green revolution area in India. The researchers estimated the potential returns from basmati cultivation. They calculated the cost of production of cultivation by small and big holding farmers, the average production and the price they receive after immediate sale. If they use warehouse facility and sale the rice when market price is in the order of Rs. 4000 per quintal, the economic gain is considerably higher which makes worth to use warehouse facility. Along with this the loan on warehouse receipts helps farmer for the expenses in the next cropping season. The researchers have suggested three pronged strategy comprising interventions at the village mechanisms to elicit greater participation of the adhatiyas and other supporting infrastructural and institutional measures. These things are required to put the warehousing Act 2007 in the fast track.

ANALYSIS AND RESULTS

The study is conducted to analyze the demographics of the farmers and to find the awareness level and problems in Agri –storage facilities for their produce.

Table 1 DEMOGRAPHIC CHARACTERISTIC OF THE FARMERS

Sl.	Demographics	Respondents	Percentage
1.	**Age**		
	20 to 30 years	26	5.2
	31 to 40 years	137	27.4
	41 to 50 years	103	20.6
	Above 50 years	234	46.8
2.	**Gender**		
	Male	432	86.4
	Female	68	13.6
3.	**Marital status**		
	Married	468	93.6
	Unmarried	32	6.4
4.	**Educational qualification**		
	No formal education	103	20.6
	Below high school	103	20.6
	Higher secondary school	223	44.6
	Graduate	71	14.2
5.	**Area of Residence**		
	Rural	500	100.0
	Urban	0	0.0
6.	**Type of family**		
	Joint	286	57.2
	Nuclear	214	42.8
7.	**Number of dependents**		
	Below 3	48	9.6
	3 to 5	89	17.8
	Above 5	363	72.6

Source: Computed from Primary Data

From the table it is clear that less than half (46.8%) of the respondents are in the age above 50 years, 27.4% of the respondents are in the age between 31 and 40 years, 20.6% of the respondents are in the age of 41 to 50 years and the remaining 5.2% of the respondents are in the age between 20 and 30 years. It is clear that majority (86.4%) of the respondents are male and 13.6% of them are female. It is evident that majority (93.6%) of the respondents are married and 6.4% of them are unmarried. It is understood that most (44.6%) of the respondents studied upto higher secondary, 20.6% of the respondents studied up to high school, another 20.6% of the respondents do not have any formal education and the remaining 14.2% of the respondents are graduates. It is clear that all (100%) of the respondents are living in rural area. It is found that most (57.2%) of the respondents are living in joint type of family and 42.8% of the respondents are living in nuclear type of family.

It is observed that majority (72.6%) of the respondents have more than 5 members in their family, while 17.8% of them have 3 to 5 members in their family and the remaining 9.6% of the respondents have stated below 3 members in their family.

Table 2 AWARENESS OF STORING SYSTEMS

Items		Very Low	Low	Moderate	High	Very High	Wtd. Mean
Under Ground Storage	Count	36	48	109	190	117	3.608
	Row N %	7.20%	9.60%	21.80%	38.00%	23.40%	
Surface Storage	Count	19	103	143	155	80	3.348
	Row N %	3.80%	20.60%	28.60%	31.00%	16.00%	
PAU Bin	Count	14	23	87	239	137	3.924
	Row N %	2.80%	4.60%	17.40%	47.80%	27.40%	
Pusa Bin	Count	21	53	133	188	105	3.606
	Row N %	4.20%	10.60%	26.60%	37.60%	21.00%	
Hapur Tekka	Count	6	40	87	244	123	3.876
	Row N %	1.20%	8.00%	17.40%	48.80%	24.60%	
Cover and Plinth Storage	Count	20	53	122	217	88	3.600
	Row N %	4.00%	10.60%	24.40%	43.40%	17.60%	
Silos	Count	25	74	109	230	62	3.460
	Row N %	5.00%	14.80%	21.80%	46.00%	12.40%	
Private Warehouse	Count	45	123	102	141	89	3.212
	Row N %	9.00%	24.60%	20.40%	28.20%	17.80%	
Public Warehouse	Count	29	61	139	182	89	3.482
	Row N %	5.80%	12.20%	27.80%	36.40%	17.80%	
Bonded Warehouse	Count	36	49	129	159	127	3.584
	Row N %	7.20%	9.80%	25.80%	31.80%	25.40%	
General Warehouse	Count	22	35	94	225	124	3.788
	Row N %	4.40%	7.00%	18.80%	45.00%	24.80%	
Special Commodity Warehouse	Count	10	27	97	239	127	3.892
	Row N %	2.00%	5.40%	19.40%	47.80%	25.40%	
Refrigerated Warehouse	Count	21	21	92	253	113	3.832
	Row N %	4.20%	4.20%	18.40%	50.60%	22.60%	
State warehousing	Count	9	29	132	214	116	3.798
	Row N %	1.80%	5.80%	26.40%	42.80%	23.20%	
FCI (Food Corporation of India)	Count	12	26	122	228	112	3.804
	Row N %	2.40%	5.20%	24.40%	45.60%	22.40%	
NDDB Warehouse	Count	3	19	24	211	243	4.344
	Row N %	.60%	3.80%	4.80%	42.20%	48.60%	
Central Warehouse Corporation	Count	1	34	119	180	166	3.952
	Row N %	.20%	6.80%	23.80%	36.00%	33.20%	
State Warehouse Corporation	Count	8	21	43	243	185	4.152
	Row N %	1.60%	4.20%	8.60%	48.60%	37.00%	

Source: Computed from Primary Data

It is clear from the table that the respondents level of awareness of storing system was computed using Likert five point scale in which the ranking ranges between 1 and 5 (1: very low and 5: very high). Further it is observed that the result was presented in the descending to ascending order from high level of awareness to low level of awareness for all the fifteen parameters viz. "NDDB Warehouse with the mean of 4.344", "State Warehouse Corporation with the mean of 4.152", "Central Warehouse Corporation with the mean of 3.952", "PAU Bin with the mean of 3.924", "Special Commodity Warehouse with the mean of 3.892", "Hapur Tekka with the mean of 3.876", "Refrigerated Warehouse with the mean of 3.832", "FCI (Food Corporation of India) with the mean of 3.804", "State warehousing with the mean of 3.798", "General Warehouse with the mean of 3.788", "Under Ground Storage with the mean of 3.608", "Pusa Bin with the mean of with the mean of 3.606", "Cover and Plinth Storage with the mean of 3.600", "Bonded Warehouse with the mean of 3.584", "Public Warehouse with the mean of 3.482", "Silos with the mean of 3.460", "Surface Storage with the mean of 3.348" and finally "Private Warehouse with the mean of 3.212".

Table 3 PROBLEMS IN CURRENT STORAGE SYSTEM

Items		Highly Problematic	Problematic	Neutral	Not Problematic	Highly Not Problematic	Wtd. Mean
Lack Facilities	Count	67	0	48	112	273	4.048
	Row N %	13.40%	.00%	9.60%	22.40%	54.60%	
Lack of guidance	Count	167	0	26	10	297	3.54
	Row N %	33.40%	.00%	5.20%	2.00%	59.40%	
Lack of Storage Knowledge	Count	167	0	61	10	262	3.4
	Row N %	33.40%	.00%	12.20%	2.00%	52.40%	
Transaction cost	Count	148	0	36	24	292	3.624
	Row N %	29.60%	.00%	7.20%	4.80%	58.40%	
Risk averse	Count	177	5	26	0	292	3.45
	Row N %	35.40%	1.00%	5.20%	.00%	58.40%	
Time Horizon	Count	135	5	21	42	297	3.722
	Row N %	27.00%	1.00%	4.20%	8.40%	59.40%	
Market Fluctuations	Count	130	10	21	61	278	3.694
	Row N %	26.00%	2.00%	4.20%	12.20%	55.60%	
Increasing Commitments	Count	155	5	26	134	180	3.358
	Row N %	31.00%	1.00%	5.20%	26.80%	36.00%	
Personal Problems	Count	202	26	0	92	180	3.044
	Row N %	40.40%	5.20%	.00%	18.40%	36.00%	
Lack of Trust	Count	202	21	0	36	241	3.186
	Row N %	40.40%	4.20%	.00%	7.20%	48.20%	
Labour Cost Effective	Count	143	42	33	46	236	3.38
	Row N %	28.60%	8.40%	6.60%	9.20%	47.20%	
Cash Credit from Bank	Count	253	21	0	56	170	2.738
	Row N %	50.60%	4.20%	.00%	11.20%	34.00%	
Theft	Count	226	21	5	12	236	3.022
	Row N %	45.20%	4.20%	1.00%	2.40%	47.20%	
Wastage	Count	294	0	26	5	175	2.534
	Row N %	58.80%	.00%	5.20%	1.00%	35.00%	
Shorting	Count	240	0	26	59	175	2.858
	Row N %	48.00%	.00%	5.20%	11.80%	35.00%	

Source: Computed from Primary Data

It is clear from the table that the respondents opinion about the problems faced in current storage system was computed using Likert five point scale in which the ranking ranges between 1 and 5 (1: Highly Problematic and 5: Highly Not Problamatic). Further it is observed that the result are presented in the descending to ascending order from high level of problem to low level of problem as mentioned by the farmers with respect to storing system for all the parameters which shows the first rank was for the statement "Lack of Facilities with the mean of 4.048", "Time Horizon with the mean of 3.722", "Market Fluctuations with the mean of 3.694", "Transaction cost with the mean of 3.624", "Lack of guidance with the mean of 3.540", "Risk averse with the mean of 3.450", "Lack of Storage Knowledge with the mean of 3.400", "Labour Cost Effective with the mean of 3.380", "Increasing Commitments with the mean of 3.358", "Lack of

Trust with the mean of 3.186", "Personal Problems with the mean of 3.044", "Theft with the mean of 3.022", "Sorting with the mean of 2.858", "Cash Credit from Bank with the mean of 2.738" and finally "Wastage with the mean of 2.534".

CONCLUSION

The study could be concluded that there is awareness among the farmers regarding the storage. Demographic profile plays a significant role and most of the rural people need immediate money for next harvest and that leads to not going for storage facilities. They also face problems in storage in the area of guidance, risk, commitment, wastage etc. To sum up, agriculture is the backbone of India which needs improvement in storage facilities provided to them and the establishment of cold storage for their produces in the rural area.

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