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Trends in Private and Public Investments in Agricultural Marketing Infrastructure in India

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Abstract

The study has estimated the extent of investment made in promotion of marketing infrastructure in the country and growth in public and private investments. It has also examined state-wise spread of private and public investments in agricultural marketing infrastructure, its composition and share and has investigated whether private investment induces public investment or vice versa. Of the total investment of Rs 157652.30 lakh made for the development of agricultural marketing infrastructure, Madhya Pradesh has accounted for the maximum (36%) share, followed by Tamil Nadu (18%) and Andhra Pradesh (13.5%). West Bengal has accounted for the lowest share. The analysis has indicated that there is a strong complementarity between private and public investments and as soon as private investment comes, public investment also starts pouring in. On investigating whether public investment is dependent on private investment or vice versa, the study has revealed that private investment induces public investment. The study has further indicated that in agricultural marketing infrastructure, private investment has taken a lead, which is a welcome change because private investment is more efficiently used as compared to public investment. To give further fillip to private investment in agricultural marketing infrastructure, the study has provided certain suggestions.

Introduction

There is no country in the world which is able to balance the agricultural production against demand or regulate agricultural income to the satisfaction of farmers. Evidently, India has solved the problem of production but not of distribution. According to Amartya Sen, 'famines — and acute poverty too — arise from faulty distribution and not for want of goods for distribution'. The market is a powerful tool for promoting production, but agricultural marketing in India has not developed as per international standards. Agricultural marketing is viewed as a process encompassing all the steps involved from producers to consumers, including pre- and post-harvest operations. These operations add value to the produce in terms of time, place and farm utilities. Agricultural marketing has assumed

increased importance after launching of new economic policy and consequent of opening up of India's market to the world. There has been a significant concern in recent years regarding the efficiency in marketing of agricultural produce in India. It is believed that poor linkages in the marketing channels and poor marketing infrastructure are leading to high and fluctuating consumer prices, and only a small proportion of the consumer rupee reaches the farmer. There are substantial wastage, deterioration in quality, and frequent mis-match between demand and supply spatially and over time. Indian agricultural marketing sector is still facing the problems of capital inadequacy, lack of infrastructural support and demand side constraints, such as controls on movement, storage and sale of agricultural products, etc. These continue to affect the economic viability of agricultural sector. Consequently, growth in

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agriculture has tended to slacken. It is highly pertinent to put in place appropriate measures to ensure that India's biggest asset, its agriculture base, is leveraged to serve the national as well as global markets effectively. It will establish the path towards enhancing investment in agriculture. Accordingly, some efforts have been made by the Government of India to enhance investment in agriculture, in general and agricultural marketing, in particular by launching different schemes. Considering the importance of filling infrastructural deficit, Government of India had launched a reform-linked scheme on "Development/ Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization – Upgradation of Laboratories", in 2004 to attract investments in agricultural marketing.

Considering the above background, the present study has been conducted to know specifically the extent of investment made in promotion of agricultural marketing infrastructure in the country and growth in public and private investments. The state-wise spread of private and public investments in agricultural marketing infrastructure has been examined along with its composition and share. Attempt has also been made to find whether private investment induces public investment or vice versa.

Methods and Materials

The data were collected from the Office of Directorate of Marketing and Inspection, Govt. of India, Faridabad; National Cooperative Development Corporation (NCDC), New Delhi; and National Bank for Agriculture and Rural Development (NABARD), Mumbai. Information was also culled out from the agenda notes of Monitoring and Review Meetings held at the Ministry of Agriculture, Govt. of India, during the years 2006-07, 2007-08 and 2008-09. For studying the progress made in investment under the scheme, the study period of 2004 to 2008 (up to June) was taken. The complementarity between private and public investments has been worked out with the help of correlation analysis. Regression analysis has also been used to examine the effect of inducement to invest. The data have also been analysed with the help of simple statistical tools.

The Scheme

To attract investment in the area of agricultural marketing infrastructure, Ministry of Agriculture, Government of India, had launched a reform-linked scheme in October 2004. Under the scheme, subsidies to the private and public entrepreneurs are provided for a wide range of projects. The scheme is credit-linked with 25-33 per cent back-ended subsidy, depending on the area and category of the beneficiaries and attracts private and public investments. There exists the maximum subsidy limit of Rs 50-60 lakh per project for the private sector, whereas for the public sector investment, there is no such cap on the subsidy.

The scheme is being implemented by the Directorate of Marketing and Inspection, a department of Ministry of Agriculture, Government of India, located at Faridabad. The scheme is a credit-linked subsidy scheme. The subsidy is back-ended and is released to the units by NABARD and NCDC. The scheme has 10 specific objectives: to (i) provide additional agricultural marketing infrastructure to cope up with the large expected marketable surpluses of agricultural and allied commodities, (ii) promote competitive alternative agricultural marketing infrastructure by inducement of private and cooperative sector investments that sustain incentives for quality and enhanced productivity, thereby improving farmers' income, (iii) strengthen existing agricultural marketing infrastructure, (iv) promote direct marketing, (v) provide and promote infrastructural facilities for grading, standardization and quality certification of agricultural produce, (vi) promote pledge financing and marketing credit, (vii) introduce negotiable warehousing receipt system, and (viii) promote forward and future markets so as to stabilize market system and increase farmers' income, (ix) promote direct integration of processing units with producers, and (x) create general awareness and provide education and training to farmers, entrepreneurs and market functionaries on agricultural marketing, including grading, standardization and quality certification.

It has been found that scheme being reform-linked, only 13 states out of 24 states/union territories have taken benefit of the scheme so far. It was disheartening to note that though the scheme was

implemented in October 2004, by the end of March 2005, only five states/UTs (Madhya Pradesh, Tamil Nadu, Kerala, Manipur and Andaman & Nicobar Islands) were notified for taking the benefit of the scheme. During the next year, states like Punjab, Himachal Pradesh, Andhra Pradesh, Nagaland, Sikkim and two UTs got notified under the scheme. During 2006-07, another five states/UTs, viz. Chhattisgarh, Orissa, Arunachal Pradesh, Maharashtra, Bihar, Chandigarh and Lakshdeep were declared eligible for availing the benefit of the scheme. Some states like Assam, Tripura, Gujarat, Karnataka and Goa joined the bandwagon of reformed states during 2007-08 only. However, the investment under the scheme started pouring only during 2005-06. An investment of Rs 3735 lakh was made in the first year, which rose to Rs 37900 lakh in the second year, registering a growth of nearly 1015 per cent. During 2007-08, the investment reached the level of Rs 96065 lakh, registering a growth of nearly 254 per cent over the previous year. By the end of June 2008, an investment of Rs 19980 lakh has been made. Thus, the total investment made for the development of agricultural marketing infrastructure stood at Rs 157652 lakh by June 2008. The overall percentage rise in investment till the end of June 2008, as compared to that in 2005-06, recorded an impressive increase of nearly 4221 per cent.

Private and Public Investments in Agricultural Marketing Infrastructure

The share of private and public sectors in investment has also been worked out and has been provided in Table 1. A glance at Table 1 reveals that initially the share of private investment was in predominance and accounted for 99 per cent share and that of public investment was meager. During the next year, the share of public investment increased to nearly 37 per cent and that of private investment fell to about 63 per cent. During 2007-08, the investment in public sector got a momentum and reached a level of about 51 per cent and that of private sector remained less than 50 per cent. During 2008-09 (up to June), the public investment has not put forward and the entire investment has been made by the private sector. Overall, the share of private investment in total investment worked out to be 60 per cent and that of public only about 40 per cent.

The sector-wise rate of growth of investment can also be perused from Table 1. The annual percentage change indicates that initially it was more in the public than private investment. Thus, from the analysis it can be inferred that investment in agricultural marketing infrastructure has been much higher by the private sector than the public sector at the aggregate level. It is also evident from the ratio calculated and placed in the same Table. The results have indicated that, on an average, on each rupee

Table 1. Trends in private and public investment in agricultural marketing infrastructure in India: 2005-06 to 2008-09 (up to June)

Particulars	2005-06	2006-07	2007-08	2008-09 (up to June)	Overall
Private investment (in lakh Rs)	3704.85	23937.24	47329.67	19980.99	94952.74
Share in total investment (%)	99.19	63.16	49.27	100.00	60.23
Annual change (%)	0.00	646.11	197.72	-42.22	2562.93
Public investment (in lakh Rs)	30.41	13963.72	48735.88	0.00	62699.60
Share in total investment (%)	0.81	36.84	50.73	0.00	39.77
Annual change (%)	0.00	45918.18	349.02	0.00	206180.87
Total investment (in lakh Rs)	3735.26	37900.96	96065.55	19980.99	157652.34
Annual change (%)	0.00	1014.68	253.46	-20.80	4220.66
Ratio of private/ public investments	121.83	1.71	0.97	0.00	1.51

Note: Overall change is from 2005-06

Source: Compiled from the data collected from Directorate of Marketing & Inspection, Ministry of Agriculture, Govt. of India, Faridabad

investment by the public sector, the private sector has invested Rs 1.51. However, it was not true initially when on investment of each rupee by the public sector, the private sector invested nearly 122 rupees. But during 2006-07, this ratio improved substantially for the public investment. This got momentum and overtook the private investment in 2007-08, when this ratio became leaned towards the public sector.

State-wise Spread in Public and Private Investments

After finding the trends in investment, it became imperative to study the spread of investments in different states. The state-wise spread of investment was worked out and has been depicted in Table 2 for public, private and total investments. Of the 24 reformed states, only 13 states came forward for investment in the agricultural marketing infrastructure. Of the total investment of Rs 157652 lakh, Madhya Pradesh alone accounted for nearly 36 per cent share, followed by Tamil Nadu (18%) and Andhra Pradesh (13.5%). West Bengal accounted for the lowest share. Amongst these states, three

states, viz. West Bengal, Orissa and Sikkim, were those states whose share in the total investment was not even one per cent taken together and was much below half per cent as an individual state. It was interesting to find that four states, viz. Kerala, Himachal Pradesh, Gujarat and Maharashtra, were among those states whose share in the total investment made in the agricultural marketing infrastructure was less than 5 per cent and another three states, viz. Chhattisgarh, Punjab and Rajasthan, had a share between 5.0 and 7.5 per cent.

The investment made by the public and private sectors for the reformed states was also calculated and has been given in Table 2. It may be seen from Table 2 that of the total investment made, the maximum proportion came from the private and accounted for more than 60 per cent share. The state-wise spread of investment by the sector has revealed that investment was made by most of the private entrepreneurs in all the thirteen states, except West Bengal. The maximum investment was made by the private entrepreneurs of the state of Madhya Pradesh, followed by Tamil Nadu, Andhra Pradesh, Rajasthan and Punjab. The lowest investment was observed in

Table 2. State-wise spread of private and public investment in agricultural marketing infrastructure in India – Up to June 2008

(in lakh Rs)

States	Private sector	Percentage share	Public sector	Percentage share	Total investment	Percentage share
Andhra Pradesh	13960.39	14.70	7344.01	11.71	21304.40	13.51
Madhya Pradesh	26109.95	27.50	30070.43	47.96	56180.38	35.64
Punjab	10004.89	10.54	432.73	0.69	10437.62	6.62
Kerala	6840.76	7.20	259.50	0.41	7100.26	4.50
Tamil Nadu	16217.09	17.08	12183.47	19.43	28400.56	18.01
Rajasthan	11213.77	11.81	74.11	0.12	11287.88	7.16
Chhattisgarh	4057.82	4.27	5195.91	8.29	9253.73	5.87
Himachal Pradesh	512.62	0.54	3751.34	5.98	4263.96	2.70
Maharashtra	5877.00	6.19	0.00	0.00	5877.00	3.73
Orissa	87.36	0.09	0.00	0.00	87.36	0.06
Gujarat	10.66	0.01	2937.86	4.69	2948.52	1.87
Sikkim	60.42	0.06	389.42	0.62	449.84	0.29
West Bengal	0.00	0.00	60.82	0.10	60.82	0.04
Total	94952.74	100.00	62699.60	100.00	157652.34	100.00

Source: Compiled from the data collected from Directorate of Marketing & Inspection, Ministry of Agriculture, Govt. of India, Faridabad

the Gujarat state. In the remaining states, the share of investment to total private investment was much below 10 per cent.

Like in the private investment, the state of Madhya Pradesh, followed by Tamil Nadu and Andhra Pradesh states accounted for a major share in the total public investment also, in the descending order of magnitude. The remaining ten states accounted for nearly 21 per cent share in the total public investment.

The state-wise composition of investment in agricultural marketing infrastructure, depicted in Table 3, reveals that the overall share of private investment was much higher (60.2%) as compared to the share of public investment. However, it was not found true for the states of West Bengal, Gujarat, Himachal Pradesh, Sikkim, Chhattisgarh and Madhya Pradesh, wherein the share of public investment was more than 53 per cent.

The state-wise ratio between public and private investments in agricultural marketing infrastructure was also calculated and has been presented in Table 3. Though the overall ratio between public to private investments was 1.51, for the states of Rajasthan,

Kerala, Punjab, Andhra Pradesh and Tamil Nadu, it was noticed to be above the average value. It was heartening to note that in Rajasthan when the private sector invested nearly Rs 151.32, the public sector got motivated and decided to invest only rupee one. In Kerala and Punjab, the respective governments invested one rupee when the private sector invested Rs 23 and Rs 26, respectively.

Complementarity between Private and Public Sector Investments in Agricultural Marketing Infrastructure

The linkage between private and public investments was also calculated with the help of correlation analysis. The value of 'r' worked out to be 0.9597 and was found significant at 5 per cent level of significance. The analysis indicated that there was a very strong complementarity between private and public investments. It also depicted that as soon as private investment came, the public investment also started pouring in for the promotion of agricultural marketing infrastructure in India.

An effort was also made to find out whether public investment was dependent on private investment or private investment was dependent on

Table 3. State-wise composition of private and public investments in agricultural marketing infrastructure in India – Up to June 2008

States	Share of private investment, %	Share of public investment, %	Total investment (in lakh Rs)	Ratio of private to public investments
Andhra Pradesh	65.53	34.47	21304.40	1.90
Madhya Pradesh	46.48	53.52	56180.38	0.87
Punjab	95.85	4.15	10437.62	23.12
Kerala	96.35	3.65	7100.26	26.36
Tamil Nadu	57.10	42.90	28400.56	1.33
Rajasthan	99.34	0.66	11287.88	151.31
Chhattisgarh	43.85	56.15	9253.73	0.78
Himachal Pradesh	12.02	87.98	4263.96	0.14
Maharashtra	100.00	0.00	5877.00	0.00
Orissa	100.00	0.00	87.36	0.00
Gujarat	0.36	99.64	2948.52	0.00
Sikkim	13.43	86.57	449.84	0.16
West Bengal	0.00	100.00	60.82	0.00
Total	60.23	39.77	157652.34	1.51

Source: Compiled from the data collected from Directorate of Marketing & Inspection, Ministry of Agriculture, Govt. of India, Faridabad

Table 4. Regression analysis of private and public investments in agricultural marketing infrastructure in India

Particulars	Private investment as dependent variable	Public investment as dependent variable
Constant	1437.975	-255.435
Value of co-efficient	1.353	0.679
t – Statistics	11.706	11.706
Adjusted R	0.919	0.919

Source: Compiled from the data collected from Directorate of Marketing & Inspection, Ministry of Agriculture, Govt. of India, Faridabad

public investment, with the help of regression analysis. In the equation depicting that private investment is dependent on public investment (Table 4), it was found that the value of intercept was 1437.97 and of co-efficient was 1.353. It indicated that 'the private investment, was prevalent even before the commencement of public investment'. In another equation depicting that private investment induces public investment the value of intercept worked to be -255.43 and of coefficient as 0.679. The negative value of the intercept indicates that without private investment, public investment would be withdrawn. It is interesting to mention that in both the equations, the value of co-efficient was significant and of adjusted R was 0.919. A careful perusal of raw data indicated that during 2005-06, it was the private investment which came first. Later, during the next year, due to increase in the private investment, public investment was found to be induced. This leads to conclude that 'private investment induces public investment'.

Suggestions for Enhancing Investments in Agricultural Marketing Infrastructure

The study has indicated that in the agricultural marketing infrastructure, the private investment had taken a lead. It is a welcome change because private investment is utilized more efficiently than the public investment. The analysis has indicated that there was a very strong complementarity between the private and public investments. It was also found that the private investment was prevalent even before the commencement of public investment. The study has confirmed that due to increase in private investments, public investments were induced.

In order to give further fillip to the private investment, it is suggested that barriers encountered in boosting of the private investment should be removed both for domestic and overseas. On the domestic front, there is a strong need to create awareness about the scheme at the grassroots level by launching intensive advertisement campaign through mass media, participation in local fairs and organizing road shows.

To facilitate private entrepreneurs as well as fast track clearance of all required formalities for establishing agricultural marketing infrastructural units, single window services should be established, with branches at state and district levels. Establishment of 'Entrepreneurial Bank' for promotion of agricultural marketing infrastructure units would also help in mobilizing investment in the private sector. Handholding facilities along with the forward linkage would immensely help the entrepreneurs and develop further confidence among potential investors. Fiscal incentives in the form of progressive taxation would also go a long way in attracting private investment in agricultural marketing infrastructure. On the overseas front, to fill the gap of infrastructural development, it is suggested that Foreign Direct Investment may also be allowed.

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