

EFFECTIVENESS OF PUBLIC DISTRIBUTION SYSTEM: A CASE STUDY OF MARANGATTUPILLY PANCHAYAT IN KERALA

P. SHANMUGAM¹ & DEEPA K THOMAS²

¹Assistant Professor, Department of Economics, Bharathiyar University, Coimbatore, Tamil Nadu, India

²Ph. D Scholar, Department of Economics, Bharathiyar University, Coimbatore, Tamil Nadu, India

ABSTRACT

PDS is primarily a social welfare and anti-poverty programme of the Government of India. It provides rational amount of basic food items and other non- food products at below market prices to consumers through a network of fair price shops. PDS is an important planning scheme and greater importance is given to this scheme as heavy expenditure is made on this. The role of PDS cannot be over emphasis as it contributes towards the social welfare of the people. Central Government and State Government have been actively involved in coxswaining the operation for the success of the PDS. It is not possible to neglect the PDS in India, because, majority of the Indian population depend on this system for their living. Now, the most appropriate question is, whether this system is working effectively in ameliorating poverty or not? Whether the TPDS works properly and efficiently as expected without any corruption? Current study is undertaken to answer some of the questions related to the effectiveness and impact of PDS, such as whether the card holders use the PDS effectively or not. Also, whether there are any drawbacks regarding the implementation of the activities of PDS.

KEYWORDS: Welfare, Alleviation, Expenditure, Network, Implementation, Population

INTRODUCTION

The concept of PDS (Public Distribution System) in the country has evolved around 1942. Due to the shortage of food grains, during the Second World War, the Government of India intervened in the distribution of food. The Government intervened in the distribution of the food grains during the period of food scarcity and thereafter, continued in major cities, towns and food discrepancy areas. This policy of Public Distribution System or rationing has undergone several changes with every lap of five year plans. The government of India fulfilled certain objectives of food security through PDS at an affordable cost. In the present scenario, Public Distribution System strives to meet the twin objectives namely the price support to the farmers for their products and maintenance of stock. This mission of the Government of India is brought into the reality at the operational level by Food Corporation of India. PDS is primarily a social welfare and antipoverty programme of the Government of India. Essential commodities like rice, wheat, sugar, and other non-food products are supplied to the people under PDS at below market prices. It has been one of the most important elements in India's food safety system for almost 50 years.

The focus and coverage of PDS have changed widely over the years. Initially during the World War civilian consumption was restricted so as to divert food items to meet the food requirements of harm forces. Subsequently, frequent occurrence of drought throughout the country made the planners to think about the food shortages. In order to overcome the shortage, ration shops came into existence. In the year 1992, the Revamped PDS was introduced. Under this system people were allowed to purchase essential food items from the PDS. After the Chief Ministers Conference held in 1996, a

revised scheme known as the Targeted PDS was introduced. Under the TPDS, a two tier subsidized pricing system is followed. Card holders are classified as Above Poverty Line (APL) and Below Poverty Line (BPL). The TPDS was further extended in 2000 to include the Anthodia Scheme. Central Government and State Governments have been actively involved in steering the operation for the success of the PDS.

Kerala is considered as a model for the implementation of the PDS programmes, because it helps to eradicate poverty and improves standard of living of the people below the poverty line. Hence the efficiency and impact of PDS in the life of people can be analyzed through the research, with special reference to Marangattupilly Panchayat in Kottayam District. So, this study focuses on the effectiveness of PDS in the Panchayat concerned. Effectiveness means fruitfulness of the PDS scheme – whether it has reached the right people and whether the right people are using the scheme to their fuller satisfaction. Timely supply of essential commodities is the basic element for the success of the PDS. Infrastructure i.e., Fair Price Shops (FPS), storage facilities and employees are other requisites of the PDS.

REVIEW OF LITERATURE

Chethan et al (2015), examines Bihar's coupon based PDS system of PDS delivery, through primarily survey among households. They found that high ration of food grains leakages persist in the context of coupons. Also mal-administrative practices lead many households to receive expired coupons, and FPS owners devise a series of strategies to extract profit from beneficiaries. Actually this system designed to improve the efficiency of rations – based PDS delivery. The merit of this scheme is that coupon base system worked better for the allocation of Kerosene than food grains because Kerosene is available to all households, whereas subsidized food grains are provided only to households below the poverty line.

Dreze and Khera (2015) made an attempt to resolve the puzzle of PDS leakages using the latest available NSS data. It shows that, leakages in PDS existing but many States have initiated PDS reforms in recent years. With the help of data authors estimated aggregate leakages at the national level. It reveals that leakages are low in some States like Tamil Nadu and Himachal Pradesh. In this article author made comparison between NSS and IHDS (National Sample Survey and India Human Development Survey). In concluding part, they show that there are high leakage in the APL quota and lower leakages in the BPL quota, because APL households had no idea of what they were supposed to get from the PDS and corrupt leaders kept them in the dark and exploited their ignorance.

Haldar (2014) analyzed the extent of supporting measure of PDS in helping the poor to maintain minimum nutritional status and levels of living. It is an empirical study for which the author used primary data, and this data were collected from a village of West Bengal on the basis of sampling survey method. This article showed that, PDS plays a more meaningful role in translating macro level self-sufficiency into micro level self-sufficiency by ensuring availability of food grains for the poor households. Also it shows only 56 to 58.5 percent of the total food subsidy (that is Centre and State) reaches the PDS consumers. Finally this study showed inclusion and exclusion problems of cardholders and suggested that TPDS should restructure and identify the households in different categories according to the norms.

Sarbapriya Ray and Ishitha Adithya (2011) have analyzed the role and effectiveness of PDS under the title Role and effectiveness of PDS in assuring food security in India. This paper tries to identify food insecure population of the country, analyze the availability, storage procurement of food grains, assess the effectiveness of PDS, identify the discrepancies in the system, find ways to remove the anomalies and to make the delivery mechanism more effective. This

paper is an exploratory research based on data and statistical records published by Government houses. This paper tries to analyze the food security condition of India during the last few decades and the working of PDS with some macro measures.

OBJECTIVES OF THE STUDY

The general objective of this study is to assess the effectiveness of PDS in Marangattupilly Panchayat. However the specific objectives of the study are to find out the important socio-economic determinants of the usage of PDS by card holders and to study the problems related to the effectiveness of PDS.

METHODOLOGY

Present study is empirical in nature and study relies on primary and secondary data. Primary data were collected from the Marangattupilly panchayat in Kottayam district in Kerala. Questionnaires are administered to 200 households using simple random sampling technique. Similarly, secondary data were collected from Food and Civil Supplies Department of Kerala, Planning Commission of India and National Sample Survey Organization (NSSO) as well as official records of ration shops from 2005 to 2014.

RESULTS AND DISCUSSIONS

In order to analyze the effectiveness of PDS, the primary data was collected from the selected sample through questionnaires from the Marangattupilly panchayat in Kottayam district, Kerala. For convenience, 200 samples are selected through the simple random technique. The important characteristic features of the selected samples are as follows

Table 1: Ration Card Holders and Type of Ration Card

Do You Have Ration Card		Type of Ration Card			Total
		APL	BPL	AAAY	
Do you have ration card	Yes	107 (53.5)	76 (38)	17(8.5)	200(100%)
Total		107	76	17	200

Source: primary Survey

Table 1explains the cross-tabulation between the ration card and the type of the card that the respondents use. From the total sample size of 200 respondents, majority of 107 respondents from 53.5 percent of them use Above Poverty Line cards; remaining 76 respondents forming 38 percent use Below Poverty Line cards and 17 respondents forming 8.5 percent use Anthodhaya Cards.

Socio-Economic Determinants of the Consumption from PDS

In this study, the first objective is that to understand the socio-economic factors that determine PDS card holders to purchase from the PDS. From this study, it reveals that there are various socio-economic factors that determine the card holders to purchase from the PDS. It is a well Known fact that PDS is primarily a social welfare and anti- poverty programme of the government for the poor people, PDS provides rational amount of basic food items and other non- food products at below market prices to consumers through a network of fair shops. The important socio-economic determinants of the consumption from PDS, which is considered in this study, are as follows:

Table 2: Type of House among the Respondents

Type of Household	Money Spent on PDS (in Rs)			Total
	Below Rs 50	Rs 50 – 100	Rs 100 – 150	
Joint	2 (1%)	0	4 (2%)	6(3%)
Nuclear	124 (62%)	59 (29.5%)	11 (5.5%)	194(97%)
Total	126(63%)	59(29.5%)	15(7.5%)	200

Source: primary survey

The first socio-economic factor, which can influence the purchase from PDS outlets, is the type of family such as joint and nuclear. Table 2 shows that about 97percent of the respondents belong to the nuclear family whereas 3percent belong to joint family. Out of these joint families, majority spent money in between Rs 100 and Rs 150. No one spends in between Rs 50 and Rs 100. Among the nuclear families, more than half of the people spend in below Rs 50.

Table 3: Educational Status of the Respondents

Educational Status	Money Spent on PDS (in Rs.)			Total
	Below Rs.50	Rs.50-100	Rs.100-150	
Primary	65(32.5%)	24 (12%)	13 (6.5%)	102 (51%)
Secondary	57 (28.5%)	34 (17%)	2 (1%)	93 (46.5%)
Higher secondary	5 (2.5%)	0	0	5 (2.5%)
Total	63.5%	29%	7.5%	200

Source: primary survey

Educational status of the sample households is another socio-economic factor, which can influence the purchase from PDS outlets. It can be found from table 3 that 51percent of the respondents have primary education qualification while 46.5 percent and 2.5 percent have secondary and tertiary educational qualification respectively. The highest percentage of the respondents, who spent below Rs 50 in PDS outlets have primary education. The respondents, who have secondary educational qualification, spent more Rs 50 – 100 than others.

Table 4: Religion of the Respondents

Religion	Money Spent on PDS (in Rs.)			Total
	Below Rs.50	Rs.50-100	Rs.100-150	
Christian	92 (46%)	50 (25%)	6 (3%)	148 (74%)
Hindu	33 (16.5%)	10(5%)	9 (4.5%)	52 (26%)
Total	62.5%	30%	7.5%	200

Source: primary Survey

Table 4shows that the majority of the respondents belonged to Christian community. The highest proportion of the respondents who spent below 100 belonged to Christian community while in between Rs 100 and 150 belonged to Hindu community.

Table 5: Community of the Respondents

Community	Money spent on PDS (in Rs.)			Total
	Below Rs.50	Rs.50-Rs.100	Rs.100-Rs.150	
SC	39 (19.5%)	12 (6%)	9 (4.5%)	60 (30%)
RC	52 (26%)	35 (17.5%)	0	87 (43.5%)
BC	27 (13.5%)	10 (5%)	5 (2.5%)	42 (21%)
OC	8 (4%)	3(1.5%)	0	11 (5.5%)
Total	63%	30%	7%	200

Source: Primary Survey

Community of the sample households is another socio-economic factor, which can influence the purchase from

PDS outlets. In this study majority of the respondents are belongs to RC community. Table 5 shows the percentage of the sample belonged to SC, BC are 30 and 21 respectively. The people who spend less than 50 Rs is more in number from RC community and those who spent in between 100 and 150 was found to be more in SC community.

Table 6: Marital Status of the Respondents

Marital Status	Money spent on PDS (in Rs.)			Total
	Below Rs.50	Rs.50-Rs.100	Rs.100-Rs.150	
Married	76 (38%)	46 (23%)	4(2%)	126 (63%)
Divorced	50 (25%)	13 (6.5%)	11 (5.5%)	74 (37%)
Total	63%	29.5%	7.5%	200

Source: Primary Survey

Table 6 presents the marital status of the households. It is another social factor that also determines the PDS card holders to purchase from the PDS. From this table it clear that, 63 per cent of respondents were married people while the remaining 37 per cent belonged to Divorced category. The highest share of people who spent below Rs 100 and in between Rs 100 and 150 belonged to married and divorce category respectively.

Table 7: Occupational Category of the Respondents

Occupation	Money Spent on PDS (in Rs.)			Total
	Below Rs.50	Rs.50-100	Rs.100-150	
Agriculture	69 (34.5%)	40 (20%)	3 (1.5%)	112 (56%)
Non-Agriculture	57 (28.5%)	19 (9.5%)	12 (6%)	88 (44%)
Total	63%	29.5%	7.5%	200

Source: Primary Survey

Occupation is another factor that determines the card holders to purchase from the PDS. Table 7 examines, above one half of the respondents are engaged in agriculture occupation. Majority of the respondents who spent below Rs. 50 and between Rs. 50- 100 belonged to agriculture. While the majority who spend between Rs100 and150 belonged to non-agricultural occupations.

Problems Related to the Effectiveness of PDS

Another objective of this study is to study the problems related to the effectiveness of PDS. From this study it shows that there are various problems that harming to the effectiveness of the PDS

Table 8: Problems Regarding the Functioning of PDS

Group Statistics					
Problems in Functioning	N	Mean	Std. Deviation	Std. Error Mean	
Problems in PDS	Yes	192	2.52	1.189	.086
	No	8	2.50	1.309	.463

The output produces in table 8 labeled group statistics gives the descriptive statistics (number of sample size, means, standard deviations, and standard errors of means) for both the groups. It is shown from the analysis that whether the sample respondents have any problem regarding the functioning of PDS. From the total sample size of 200 respondents 192 respondents forming 96.0 percent of them say 'yes' and remaining 8 respondents forming 4.0 per cent of them said that they did not have any problem regarding the functioning of PDS.

Table 9: Major Problems in PDS

SL. No	Problems in PDS	Frequency	Percentage
1	Low Quality	61	30.50
2	Measurement problem	18	9
3	Black market	90	45
4	Mixing with low quality food grains	19	9.50
5	Leakages	12	6
Total		200	100

Source: primary Survey

Low Quality Food Grains

It is one of the important problems still exists in the PDS shops. The Table 9 presents that 30.50 per cent of the sample households opined that the rice which they availed through PDS is low quality. Thus it won't be useful for the meals instead they use it for preparing other snacks like dosha and idly and also used as food for animals. Whereas BPL cardholders who did not have any other choice and used it as their daily food. It is not the mistake of the ration shopkeepers because these low level quality food grains are provided by the Government. So more caution and care should be taken from the part of Government. The appearance of quality differentials at the retail and wholesale outlets was due to inefficiencies in the marketing chain, such as bad purchase decision, lack of care in storage and handling and indifferent service at the ration shops.

Measurement Problems

It is another problem faced by the cardholders. From the above table 9 per cent sample households revealed that, the distributors usually try to cheat the uneducated people and women through the measurement. They use different tactics like diverting the customers by continuously talking to them while measuring; they also do some other malpractices on the weighing machine too. Thus the cardholders are forced to depend the open market to purchase food grains.

Black Market

It is very clear from the above table is that, 45 percent sample households said that the ration shop keepers create an artificial shortage of grains and they sell the products which they save through different tactics in the open market. Thus they get more money and it leads the common people to suffer more. Apart from these, during the festival seasons, the special offers granted by Government do not usually reach the cardholders, instead the shopkeeper sells this in the black market. No one dares to question this because most of them have low level of education without any power.

Mixing with Low Quality Food Grains

Among many tactics used by shopkeepers, mix with low quality food-grains is a common one. It is very clear from the above table is that among the 9.50 per cent sample household said that the good quality grains are usually given in the black market and they mix it with low quality grains. For this when they receive the stock itself, they check the quality and always good quality products are sold at in the black market. It usually happens with the case of good quality rice.

Leakages

Due to the presence of price difference between FPS and market, it is revealed that food articles are illegally diverted from PDS into market. As a result a large portion of the subsidized food-grains and other essential commodities do not reach the beneficiaries and find out their way to the market.

Table 10: Attitude of the PDS Dealer

Group Statistics					
Express Complaints	N	Mean	Std. Deviation	Std. Error Mean	
Attitude of the PDS dealer	Yes	191	1.04	.201	.015
	No	9	1.00	.000	.000

The output produces in table 10 labeled group statistics gives the descriptive (number of sample size, means, standard deviations, and standard errors of means) for both the groups to analyze whether the sample respondents have an opportunity to express their complaints in the ration shop with Yes or No options. From the total sample size of 200 respondents 191 respondents forming 95.5 percent of them say yes and remaining 9 respondents forming 4.5 percent of them say that they do not care about the complaints given by the respondents.

Independent Samples Test							
Attitude of the PDS Dealer	Levene's Test for Equality of Variances		T-Test for Equality of Means				
	F	Sig.	T	Df	Sig. (2-Tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	1.704	.193	.624	198	.533	.042	.067
Equal variances not assumed			2.882	190.000	.004	.042	.015

The t-test result (with equal variances not assumed) showed t statistic of 2.882 with 190.00 degrees of freedom. The corresponding two-tailed p-value is 0.004, which was less than 0.05, but higher than 0.01 percent significance level. Therefore, the null hypothesis has rejected at 5% significance level, which means that the complaints given by the respondents in ration shop and attitude of the PDS dealer are significant. Which means, that the complaint given by the respondents to ration shop and the action should be taken soon by the PDS dealers.

Table 11: Quality of Grain Last Bought

Group Statistics					
Get Best Quality	N	Mean	Std. Deviation	Std. Error Mean	
quality of grain last bought	Yes	168	1.38	.732	.056
	No	32	1.41	.756	.134

The result in the table 11 labeled group statistics gives the descriptive (number of sample size, means, standard deviations, and standard errors of means) for both the groups to analyze whether the sample respondents are getting best quality of commodity in PDS. Here we create two groups for these question namely, if 'Yes' means 1 and 'No' means 2.

From the total sample size of 200 respondents 168 respondents forming 84.0 percent of them say 'Yes' and remaining 32 respondents forming 16.0 percent of them say that they do not get best quality of grains from PDS.

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
quality of grain last bought	Equal variances assumed	.116	.734	-.220	198	.826	-.031
	Equal variances not assumed			-.215	42.791	.830	-.031

The t-test result (with equal variances not assumed) shows t statistic of -0.215 with 42.791 degrees of freedom. The corresponding two-tailed p-value is 0.830, which is more than 0.05 percent significance level. Therefore, we cannot reject the null hypothesis at 5% significance level; that is the alternative hypothesis is accepted, which means that the quality of grains bought in PDS is good than the Quality of grains bought last from PDS.

Major Findings of the Study are Listed Below

- The study found that majority of the sample respondents was married among them 38 percent spends in the range of below Rs.50 in PDS, it was discovered that 56 percent of the respondents have agriculture as their primary occupation.
- There are three types of ration card holders found in this study, majority of the sample holders belongs to APL category.
- Most of special offers granted by Government usually do not reach to the cardholders, instead to the shop keeper who sells this in the open market.
- Low quality of food grains is another problem that affects the effectiveness of PDS in this study area.

CONCLUSIONS

The Public Distribution System in Kerala – often referred to as the ‘Kerala Model’ of implementation of the food security programme which subsidises consumers and procures grains at price higher than market prices. State Government is making all efforts to make the PDS more effective by ensuring the availability, affordability and accessibility of PDS articles to the poor. It is noticed that, in spite of a lot of practical problems, PDS is more effective and fulfills its purpose. A great number of local populations of the area benefited from PDS and being consoled as their expenditure of living is increased. Even though, there is possibility to improve its efficiency and benefits. As the weakness is solved, PDS will be improved in its functioning and attained its goals.

SUGGESTIONS

- Role of vigilance committees should be made transparent, accountable and responsible.
- Electronic weighing machine should be introduced at all the ration shop.
- Empowering people through information, communication and creating greater awareness about corruption can help to fight malpractices.
- FCI and other agencies should provide quality food grains for distribution to meet the consumption needs of the

poor.

- The Government has to take necessary steps to restrict the malpractices happening in the PDS.

REFERENCES

1. Choithani, Chetan and Pritchard Bill (2015) “Assessing Bihar’s coupon based Public Distribution System,” *Economic Political Weekly*, Vol. L, No.3, pp 61-68.
2. Dreze, Jean and Khera Reethika (2015) “Understanding leakages in the Public Distribution System”, *Economic Political Weekly*, Vol.8, No.7, pp 39-42.
3. Haldar, Uttam (2014) “The impact of Public Distribution System as a supporting measure to the poor in meeting food security-evidence from a village in West Bengal”, *Indian Journal .com*, Vol.4, No.9, pp 306-317.
4. Ray, Sarbapriya and AdithyaIshitha (2011) “Role and Effectiveness of PDS in assuring food security in India: an appraisal”, *Journal of Economics and Sustainable Development*, Vol.2, No.4, pp 26-33.
5. www.civilsupplieskerala.gov.in
6. www.census.2011.gov.in
7. www.meenachiltaluksupplyoffice.com

