

# Effectiveness of Market Intervention by Supplyco for Stabilizing Prices of Essential Commodities in Kerala

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## ABSTRACT

The Kerala State Civil Supplies Corporation (KSCSC) better known as Supplyco is an agency controlled by the government of Kerala to regulate and control the price in essential commodities. As the prominent agency of the government of Kerala, Supplyco is expected to regulate the rise in the prices of essential commodities in the open market. This is made possible through constant market intervention. The Supplyco is purchasing essential commodities from the sources of the origin or from suppliers and sold them to the final consumers at subsidized prices fixed by the government. Since the Supplyco has a great role in stabilising the prices of essentials, it's desirable to assess the effectiveness of the market interventions of this agency in the open market. This study assesses the effectiveness of market intervention by Supplyco for stabilizing prices of essential commodities. The opinion of 289 customers and 72 officers of Supplyco is the basis of analysis. The study concluded that the extent of the market intervention of Supplyco in controlling the prices of essential commodities is good.

## 1. Introduction

Controlled food grain distribution in Kerala, as well as throughout India, was instituted during World War I. A major expansion of rationing in Kerala occurred in 1964 when food shortages throughout India led to the curtailment of private interstate trade in food grains. The Civil Supplies Department of Kerala assumed responsibility for collecting and organizing available food grains and regulating their distribution through licensed ration shops. A portion of the rice distributed through the ration shops was collected from local producers using levy procurement. The Central Government provided all wheat and a large portion of rice through its domestic procurement from major producing areas and imports. The ration shops, through which the food was distributed, were linked with a chain of wholesale distributors licensed for this purpose. The costs of this rationing program are incurred by the Kerala government and the Central Government. The state government recovers most of its administrative overhead and direct costs of distribution from the margins charged at the wholesale and retail levels, while the Central Government incurs net costs in order to maintain the ration system in Kerala.

The Government of Kerala is also distributing essential commodities to the public in order to stabilize the prices through the Kerala State Civil Supplies Corporation Limited (Supplyco) and the Kerala State Co-operative Consumers' Federation Ltd (Consumerfed) which are the two major distribution agencies of Kerala government to distribute the essential commodities with a price lesser than the open market price. Besides the Supplyco and Consumerfed, the Kerala State Horticultural Products Development Corporation (Horticorp), Fair Price Shops (FPS) managed by Directorate of Civil Supplies, Matsyafed under the ministry of Fisheries and Harbour Engineering, KERAFED, Kudumbasree units and Consumer Stores controlled by other Cooperatives are also

functioning in the State to stabilize the prices of essential commodities.

One of the largest retailing networks functioning in Kerala is the Supplyco, which was incorporated in 1974 as a fully owned Government Company to ride into the narrow objectives of regulating the market price of essential commodities. Headquartered in Kochi (Kerala) and operating through five Regional Offices, 54 depots, and about 1500 retail outlets, Supplyco has a devoted workforce of nearly 3500 to fulfill the task. Supplyco's mission is to provide essentials to the reach of everyone.

The study is intended to assess the effectiveness of market intervention by Supplyco for stabilising prices of essential commodities in Kerala as it is the largest retail network under the control of the government of Kerala. But the retail prices of most of the essential food commodities in Kerala, including rice, sugar, pulses, and spices are the lowest in the country and the impact of price rise has been less severe in Kerala when compared with the rest of the country. The role of Supplyco in this respect is very immense and hence the study is very relevant. The study also aimed to test the hypothesis that the extent of market intervention by Supplyco in controlling the prices of essential commodities is moderate.

## 2. Review of Literature

Reshmi Nair (2005), substantiates with the help of econometric analysis that the declining share of Public Distribution System (PDS) and the internal production in meeting the foodgrain requirements of the population has had a significant positive effect on the open market retail prices of Kerala, with the higher market dependence pushing up the open market prices in the high deficit districts and the

increasing inter-district variation in retail prices being indicative of decreasing market integration in the State.

Further, the study conducted by Priyesh, C.A. (2006) observed that there is a considerable price difference between the prices of foodgrains supplied through PDS and sold in the open market. The study reveals that the sale prices of wheat and rice strongly influenced by government intervention showed much higher growth in 1990 than in 1980.

Nirmala Mabel, E.R. (2006) observed that Supplyco has captured a space in the minds of laymen in the sense that which are offering goods at a lower price, preventing black marketing, hoarding and regulating price mechanism in the market. The study also found that Supplyco was successful in offering goods at low prices.

According to Gopalan Puthussery (1991), the effectiveness of the PDS primarily depends on the supply management of the commodities involved and the distribution structure followed. He also observed that the impact of the working of the Civil Supplies Corporation on the price level in the State seemed to be decisive after 1981, i.e. the year in which the Maveli store has been introduced.

Mary, T.L. (2017) stated that the Maveli store was able to meet essential purchase requirements of the depressed in society. The study also found that there was an equal proportion in the quantity of the subsidized and non-subsidized goods purchased by the consumers.

However, there are some studies like Deepthi Mary Mathew and Nimmish Sany (2018) and others pointed out that the performance of the Supplyco is not that remarkable. Their study found that there is only certain commodities are sold through its retail network which is not sufficient to control the rise in prices of essential commodities. Moreover, they also found that the efficiency of Supplyco in terms of consumption of essential goods by the people in Kerala is not that remarkable and found it is only negligible.

### 3. Methodology

The study is descriptive in nature based on primary data collected from the customers and the officials at the retail outlets of the Supplyco through two sets of structured questionnaires. All the Supplyco Supermarkets in Kerala represent the universe for the study. Since the population to be covered was large, representative samples of the retail outlets of Supplyco covering the three geographical regions of Kerala (South, Central, and North) were taken for the detailed study. One district each was selected conveniently to represent the regions. Accordingly, Thiruvananthapuram (representing the South), Ernakulam (representing the Central) and Kozhikode (representing the North) were selected.

There were 410 Supplyco Supermarkets in Kerala as on March 31, 2017. In Thiruvananthapuram, there were 40

Supplyco Supermarkets, in Ernakulam 42 and in Kozhikode it is 42. For the detailed study, 25 outlets of Supplyco Supermarket from each of the three zones were selected conveniently. Accordingly, a total of 75 outlets from Supplyco Supermarket were selected as the sample units. The employees in charge of these 75 outlets were the participants in the employees' category. But, out of the 75 questionnaires served 72 were complete and 3 were incomplete. Hence the responses of only 72 employees' were considered for the study.

For selecting the sample customers, four customers each from the 75 Supplyco Supermarkets were selected conveniently for the study. Accordingly, a total of 300 customers were the participants for the study. But, out of the 300 questionnaires served 289 were complete and 11 were incomplete. Hence the responses of only 289 customers were considered for the study. For data analysis, statistical tools such as average, percentage, standard deviation, correlation, chi-square-test, t-test, z-test, ANOVA, and factor analysis were used.

### 4. Results and Discussion

In order to assess the effectiveness of the market intervention, the customers of Supplyco were asked their opinion on seven areas on a five-point scale such as (i) ensuring availability of essential commodities at a reasonable price in all times to the needy and poor people, (ii) controlling and regulating the open market prices of essential commodities, (iii) functioning as an agent of government in the public distribution system to ensure the food security, (iv) restraining the black marketing and hoarding of stocks by dishonest trader, (v) functioning as a retail outlet to suits the convenience of the people, (vi) establishing and maintaining the retail marketing stability in the outlet operations, and (vii) retaining buffer stock of food grains during dearth. The confirmatory factor analysis (CFA) has been used for the assessment (Fig. 1).

The CFA exposed that out of the seven observed variables, five variables are significantly loaded on the latent constructs as the recommended regression coefficient ( $\beta$ ) value is more than 0.4 (Table-1). The p-value is also significant at 1% level. But, the recommended regression coefficient values for ensuring availability of essential commodities at a reasonable price in all times to the needy and poor people (0.288) and functioning as an agent of the government in PDS and market intervention (0.378) are less than 0.04. Meanwhile, Supplyco is functioning as a retail outlet to suit the convenience of the people has got the highest regression coefficient (0.793). Hence, according to the assessment, the effectiveness of market intervention by Supplyco is very significant with respect to all the areas considered except, ensuring availability of essential commodities at a reasonable price in all times to the needy and poor people and functioning as an agent of the government in PDS and market intervention.

Table- 1  
Regression Coefficients Market Control (Intervention)

Variables	Regression Coefficient (β)	Critical Ratio (CR)	P	Variance explained
Ensuring availability of essential commodities at a reasonable price in all times to the needy and poor people and market intervention	0.288	4.942	<0.001	8.3
Controlling and regulating the open market prices and market intervention	0.446	7.998	<0.001	19.9
Functioning as an agent of government in the PDS and market intervention	0.378	6.631	<0.001	14.3
Restraining the black marketing and hoarding of stocks and market intervention	0.657	13.131	<0.001	43.2
Functioning as a retail outlet to suits the convenience of the people and market intervention	0.793	17.998	<0.001	62.9
Establishing and maintaining retail marketing stability and market intervention	0.778	17.345	<0.001	60.6
Retaining buffer stock of food grains during dearth and market intervention	0.743	15.959	<0.001	55.3

Source: Created based on primary data.

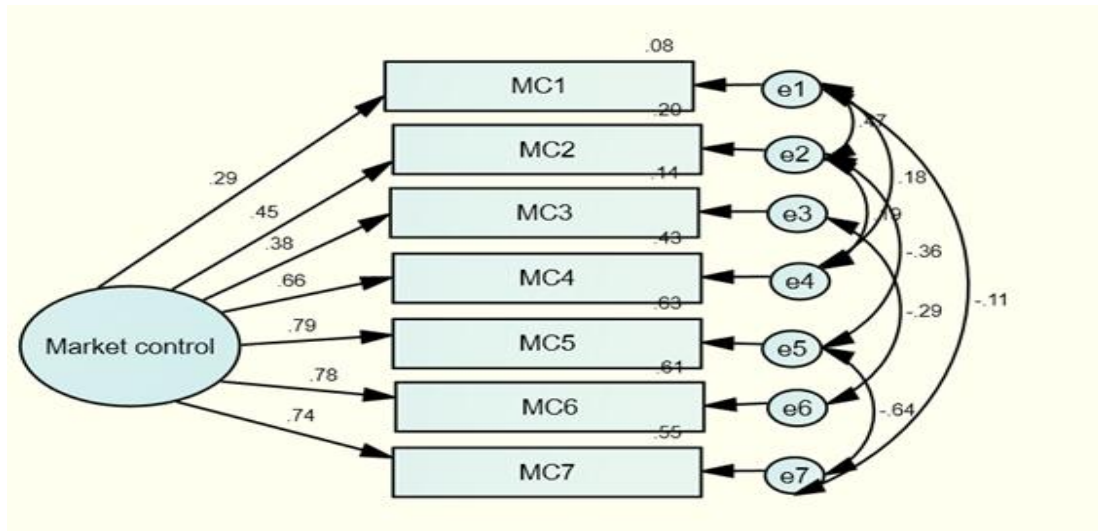


Figure- 1  
CFA Chart on Market Control (Intervention)

Table-2  
Model Fit indices for CFA Market Control (Intervention)

	$\chi^2$	DF	P	Normed $\chi^2$	GFI	AGFI	NFI	TLI	CFI	RMR	RMSEA
Market control	23.162	7	.002	3.309	.980	.919	.965	.924	.975	.031	.079
Suggested value	-	-	>0.05	< 5.00	> 0.90	> 0.90	> 0.90	> 0.90	> 0.90	< 0.08	< 0.08

Source: Primary data.

Here all the calculated values for Chi-square, Goodness of Fit Index (GFI), Adjusted Goodness of Fit (AGFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fitness Index (CFI), Root Mean Square Residual (RMR) and Root Mean Square Error of Approximation (RMSEA) are favourable in relation to their respective standard and thus the CFA is perfectly fit for the study (Table-2).

To test the hypothesis, one sample Z test has been used. For testing the extent of market intervention by Supplyco in controlling the prices of essential commodities the seven constructs (stated earlier) were used. The total score of the constructs for all the 289 customers was found out, based on which calculated the mean percentage score (MPS) of the market intervention of the Supplyco. This score was classified

into one of the four groups as poor or low if the MPS is less than 35%, moderate if the MPS is between 35 to 50 percent, good or medium if the MPS lies in the interval 50 to 75% and excellent or high if the MPS is above 75% (Loyd, B. H., & R. R. Abidin. R. R. (1985). The MPS of the market intervention of Supplyco is 64.12% which indicates that the level of market control or intervention is good or medium (Table 4). The one sample Z test also finds significant at 5% level ( $p < 0.001$ ) (Table 4). Hence the null hypothesis that the extent of the market intervention of Supplyco in controlling the prices of essential commodities is moderate stands rejected and accepts the hypothesis that the extent of the market intervention of Supplyco in controlling the prices of essential commodities is good.

Table- 3  
Mean, Standard Deviation and Z Value for Sub Variables of Market Intervention by Supplyco

Market control	N	Mean	SD	MPS	CV	z	p-value
Ensuring the availability of essential commodities at a reasonable price at all times to the needy and poor people	289	3.75	0.73	75.09	19.58	29.014	<0.001
Controlling and regulating the open market prices of essential commodities	289	3.63	0.71	72.66	19.54	27.139	<0.001
Functioning as an agent of the government in the Public Distribution System to ensure food security	289	3.13	0.76	62.56	24.44	13.968	<0.001
Restraining the black marketing and hoarding of stocks by dishonest trader	289	3.04	0.89	60.90	29.25	10.403	<0.001
Functioning as a retail outlet to suits the convenience of the people	289	3.20	0.92	64.01	28.78	12.932	<0.001
Establishing and maintaining the retail marketing stability in the outlet operations	289	3.16	1.03	63.25	32.66	10.904	<0.001
Retaining buffer stock of food grains during dearth	289	2.52	1.09	50.38	43.40	0.296	0.767

MPS=Mean Score/Maximum Possible Score X100)

CV=SD/Mean x100

Table-4  
Means, Standard Deviation and Z Value for Market Intervention by Supplyco

Variable	N	Mean	SD	MPS	CV	Z	p-value
Market intervention	289	22.44	4.10	64.12	18.27	20.495	<0.001

For assessing the extent of market intervention by Supplyco in controlling the prices of essential commodities, the opinion of the employees has also been considered. Similar to customers, the employees were also asked their opinion on the seven constructs on a five-point Likert scale. The responses were then scored as 1 for very low, 2 for low, 3 for average, 4 for high and 5 for very high. Based on this score then calculated the MPS of each of the option. This score is classified into one of the four groups as poor or low if the MPS is less than 35%, average or Moderate if the MPS is between

35 to 50 percent, good or high if the MPS lies in the interval 50 to 75% and excellent or very high if the MPS is above 75%. The MPS of the market intervention of Supplyco calculated for the constructs varies between 55.8% and 78.3% (Table-5). It means that the extent of the market intervention of Supplyco in controlling the prices of essential commodities is good or high. In the meantime, for the first two attributes, the MPS is more than 75%, which means that the extent of the market intervention of Supplyco is excellent.

Table- 5  
Effectiveness of Market Control by Supplyco (Opinion of Employees)

Sl. No	Variables	Supplyco		
		Mean	MPS	Level
1	Ensuring the availability of essential commodities at a reasonable price at all times to the needy and poor people	3.87	77.5	Very High
2	Controlling and regulating the open market prices of essential commodities	3.92	78.3	Very High
3	Functioning as an agent of the government in the Public Distribution System to ensure food security	3.08	61.7	High
4	Restraining the black marketing and hoarding of stocks by dishonest traders	3.24	64.8	High
5	Functioning as a retail outlet to suits the convenience of all segment of the people	3.68	73.6	High
6	Retaining buffer stock of food grains during dearth	2.79	55.8	High
7	Establishing and maintaining the retail marketing stability in the outlet operations	3.46	69.1	High

Source: Primary data.

### 5. Conclusion

From the foregoing analysis it is observed that the effectiveness of market intervention by Supplyco is very significant in areas such as controlling and regulating the open market prices of essential commodities, restraining the black marketing and hoarding of stocks by dishonest traders, functioning as a retail outlet to suits the convenience of all segment of the people, retaining buffer stock of food grains during dearth, and establishing and maintaining the retail

marketing stability in the outlet operations. But, the effectiveness of the market intervention is not significant in areas such as ensuring availability of essential commodities at a reasonable price in all times to the needy and poor people and functioning as an agent of the government in PDS and market intervention. To conclude, it can be inferred that the Supplyco is playing a very significant role in stabilizing prices of essential commodities in Kerala.

## References

1. Deepthi Mary Mathew and Nimmish Sany (2018). *Relevance of Supplyco and its operations in Kerala's current scenario*. Kochi: Centre for Public Policy Research.
2. Gopalan Puthussery (1991). *A Study of the Public Distribution System with Special Reference to the Kerala State Civil Supplies Corporation. Ph.D Thesis*. Calicut: University of Calicut.
3. Loyd, B. H., & R. R. Abidin. R. R. (1985). Revision of the Parent Stress Index. *Journal of Paediatric Psychiatry*, 10(2), 169.
4. Mary, T.L (2017). *A Study on the Role of Supplyco Maveli Store in Retailing with Special Reference to Puthukkadi Grama Panchayath. International Journal of Trend in Scientific Research and Development (IJTSRD)*. Vol 2, Issue 1,1322-1330.
5. Nirmala Mabel, E.R. (2006). *Evaluation of the Working of Kerala State Civil Supplies Corporation Limited. Ph.D Thesis*. Thiruvananthapuram: University of Kerala.
6. Priyesh, C.A. (2006). *Economics reforms and PDS with special reference to Kerala. Ph.D Thesis*. Thiruvananthapuram: University of Kerala.
7. Reshmi Nair (2008). *Food security in Kerala with special reference to the Targeted PDS. Ph.D Thesis*. New Delhi: Jawaharlal Nehru University.