

Impact of E-Pos Enabled Public Distribution System with Special Reference to Kattapana Municipality

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ABSTRACT

The Indian Food Safety System was created by the Indian government under the Department of Consumption, Food Distribution and the Public to distribute food and non-food objects to the Indian poor at grant rates. The government installed Electronic Point of Sale (EPOS) in all ration shops is fast progressing as part of the National Food Security Act to ensure transparent functioning of PDS. This study was done with the aim to analyze the awareness level of consumers, and to evaluate the effectiveness of epos system. To carry forward the study consumers from Kattapana Municipality was taken as samples. The collected data was analyzed through Anova and T-Test. The result confirmed that the people were aware about the implementation of epos and it is an effective system. But the implementation of epos redirects to certain problems. Strategies like opening government helpdesk and ensuring proper working hour can reduce the problems of epos.

KEYWORDS:Public Distribution System, E-PoS, Awareness, Effectiveness

I. INTRODUCTION

The Fair Value Store means a store licensed to distribute essential items on an order issued under section 3 of the Essential Commodities Act, 1955, to share card holders under the Targeted Public Transit Program. A public transit store, also known as a retail pricing store (FPS), is part of an Indian government program established by the Government of India that distributes dividends at a subsidized price for the poor.

The software that is attached to a computer and can be linked with other hardware, such as barcode readers, cash flow, and so on, is known as EPOS, or electronic point of sale to record sales / transactions. The program's goal is to boost sales while also reducing discrepancies. It

also offers a convenient means to record data, as well as a variety of report formats.

II. STATEMENT OF THE PROBLEM

The study is conducted to find out the success of epos system among consumers of ration shops of Kattapana Municipality with the help of certain questions such as was epos benefit for them, what are the benefits they received after the Implementation and to find how effective epos system is.

III. OBJECTIVES OF THE STUDY

The following are the objectives of the study:

- To analyze the awareness level of consumers after implementation of the epos system.
- To evaluate the effectiveness of the epos system.

IV. METHODOLOGY OF THE STUDY

Research design

Study is empirical research based on the impact of Epos enabled Public Distribution System with special reference to Kattappana Municipality.

Sample design

The sample was drawn from ration shop consumers in Kattappana municipality. The convenience sampling method was adopted for Data collection. Sample size is 66 respondents.

Type of Data resources

Both primary and secondary data will be used for the study. Primary data is a major source of information. Data were collected from ration shop customers in the municipality of Kattappana. Primary data are collected using a questionnaire specifically designed for this study.

Tools for collecting Data

Questionnaires were administered to collect data from the respondents.

Tools for analysis and interpretation

After data collection, the data were analyzed and the results were interpreted with the objectives of the study. With the help of SPSS (Statistical Package for Social Sciences) software sufficient statistical tools have been used to analyze data collected. The meaningful conclusion came in a way using the ANOVA Tables structure and statistical technique t -test.

V. REVIEW OF LITERATURE

Shaji & Annie John, (2018) presented a study “Impact of e-pos machines in ration shops” to adjudicate the satisfaction level and the major problems associated with the performance of ration shops after implementation of e-pos machine. They used both primary and secondary source of data and found that there is no significant difference in the satisfaction level as well as the problems faced by the informants after the implementation of e-pos.

B. Mahalingam & Akash Raj D P (2016) conducted a study “major drawbacks of Public Distribution System” to assess the performance and problems of Public Distribution System in India. They used both primary and secondary source of

data and the major problems in this system are corruption, wrong demarcation of below and above poverty households, bogus cards and less quantity of entitlements.

Dr. R Velmurugan & D Lavanya (2017) conducted “A study on Customer Satisfaction towards Public Distribution System” to ascertain the level of satisfaction of cardholders and factors influencing their satisfaction. The study result of the student discloses the customer satisfaction which is associated with family income, possibility of obtaining goods all over the month, accuracy in weight on goods.

Neetu Abey George & Fiona H. McKay(2019) conducted a study on” the Public Distribution System of India, to investigate the role of the Public Distribution System in delivering an efficient food safety network in India and to investigate the barriers and enabler of the PDS. The study observed that the lack of published research around PDS, NFSA and food security in India which leads to the suggestion that there must be dedicated research in the field of food security in India which is vital for identifying the best solutions that will improve the efficiency in operations of the Public Distribution System.

VI. ANALYSIS AND DISCUSSION

Table 1 Gender

Gender	Frequency	Percentage
Male	49	74.2
Female	17	25.8
Total	66	100

The above table shows that among 66 respondents 74.2% of them are male and 25.8% of them are female.

Table 2 Annual income

Annual Income	Frequency	Percentage
Less than 1 lakhs	34	51.5
1 lakhs- 5 lakhs	27	40.9
Above 5 lakhs	5	7.6
Total	66	100

It is clear from the table that 51.5 percentage have an annual income less than 1 lakhs, 40.9 percent have an annual income between 1-5 lakhs and the remaining 7.6 percent have an annual income above 5 lakhs.

Hypothesis testing

Awareness level by consumers with gender

In order to test whether there is any significant difference between male and female with regard to

awareness level of consumers, following hypothesis are formulated.

H₀: There is no significant difference between male and female with regards to awareness level of consumers.

H₁: There is significant difference between male and female with regards to awareness level of consumers.

t-test							
	gender	mean	Std. deviation	Sig.	t	df	Sig. (2-tailed)
Reasons	Male	3.3061	.85482	.091	.221	64	.826
	Female	3.2451	1.28576		.182	21.118	.857
Benefits	Male	3.4490	.70891	.312	.794	64	.430
	Female	3.2647	1.10091		.645	20.791	.526
Drawbacks	Male	3.2585	.73995	.107	.142	64	.888
	Female	3.2235	1.19116		.114	20.449	.911

Table 3 - Relationship between awareness level of consumers and gender – result of t-test test

Source: Computed

Table 3.2.2 shows the result of the t-test administrated on the data at 5% significant level. As the P value is more than 0.05 there is no significant difference between male and female with regards to awareness level. Thus, the null hypothesis is retained.

Awareness level by consumers with annual income

In order to test whether there is any significant difference in varied income group with regard to

awareness level by consumers, following hypothesis are formulated.

H₀: There is no significant difference among varied income group with regards to awareness level of consumers.

H₁: There is significant difference among varied income group with regard to awareness level of consumers.

Table 4- Relationship between awareness level of consumers and annual income– result of ANOVA test ONE WAY ANOVA TEST

		Sum squares	of df	Mean square	f	Sig.
Reasons	Between the groups	1.502	2	.751	.788	.459
	Within groups	60.070	63	.953		
	Total	61.573	65			
Benefits	Between the groups	.280	2	.140	.202	.818
	Within groups	43.663	63	.693		

	Total	43.943	65			
drawbacks	Between the groups	4.183	2	2.092	2.940	.060
	Within groups	44.815	63	.711		
	Total	48.998	65			

Source: Computed

From Table 3.2.4, it is understood that significant value is greater than 0.05 and therefore we accept the null hypothesis and reject alternative hypothesis. i.e., there is no significant difference between annual income of people with regards to reasons, benefits and drawbacks.

Effectiveness level by consumers with gender

In order to test whether there is any significant difference between male and female with regard to

effectiveness level of consumers, following hypothesis are formulated.

H₀: There is no significant difference between male and female with regards to effectiveness level of consumers.

H₁: There is significant difference between male and female with regards to effectiveness level of consumers.

T- TEST							
	gender	mean	Std. deviation	Sig.	t	df	Sig.(2-tailed)
effectiveness	Male	3.3952	.66171	.552	-1.94	64	.056
	Female	3.8220	1.05770		-1.56	20.514	1.34

Table 5 - Relationship between effectiveness level of consumers and gender– result of t- test

Source: Computed

Table 3.2.6 indicates that there is no significant difference in the mean score for male (M=3.3952, SD=0.66171) and female (M=3.8220, SD=1.05770), (t (64) =1.944). This result suggests that gender of the consumer does not have any effect on the effectiveness level of the consumer.

Effectiveness level of consumers with annual income

In order to test whether there is any significant difference among annual income with regard to effectiveness level by consumers, following hypothesis are formulated.

H₀: There is no significant difference among annual income with regards to effectiveness level of consumers.

H₁: There is significant difference among annual income with regards to effectiveness level of consumers.

Table 6 - Relationship between effectiveness level of consumers and annual income– result of ANOVA

ANOVA						
Effectiveness	Sum of squares	df	Mean square	f	sig	
Between group	.638	2	.319	.793	.457	
Within group	24.951	62	.402			
total	25.589	64				

Source: Computed

Table 3.2.8. clearly shows that the p value is more than 0.05 hence the null hypothesis is retained. Hence it is clear that there is no significant difference among annual income with regards to effectiveness level by consumers.

VII. CONCLUSION

Public Distribution System is the biggest food chain network in our country. But this sector has been exploited right from its introductions. For eliminating this problem, the government introduced many reforms in it, one of such revolutionary reform was the implementation of epos. This study was done in order to analyze the awareness level of consumers, and to evaluate its effectiveness. 66 samples from Kattapana Municipality were taken for this study and the data was analyzed through ANOVA and t- test. The result was that consumers were aware about the implementation of E-pos and also it stated that this change was highly effective still with little problems in it which can be eliminate with proper methods like opening government help desk, ensuring proper working hour, provide workshops, testing the quality of the products etc.

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