

**A STUDY ON THE DIGITALISATION OF PUBLIC DISTRIBUTION
SYSTEM: -
WITH SPECIAL REFERENCE TO KOTTAYAM TOWN**

A project report submitted to the Mahatma Gandhi University, Kottayam
in partial fulfillment of the requirement for the award of Bachelor's
Degree in Commerce

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COLLEGE OF APPLIED SCIENCES

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CERTIFICATE

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DECLARATION

We do hereby declare that the project titled ‘A STUDY ON THE DIGITALISATION OF PUBLIC DISTRIBUTION SYSTEM: -WITH SPECIAL REFERENCE TO KOTTAYAM TOWN’ is a bonafide report of the project work undertaken by us in partial fulfilment of the requirements for the award of the Bachelor of Commerce (Computer Application) of Mahatma Gandhi University, under the guidance of Ms. Vineetha P. George, Assistant Professor, Department of Commerce, Saintgits College of Applied Sciences, Pathamuttom, Kottayam. We also declare that this project report has not been submitted by us anywhere, fully or partially for the award of any degree, diploma, fellowship or other similar title or recognition of any university/institute to the best of my knowledge and belief.

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CONTENTS

TABLE NO.	TITLE	PAGE NO.
	LIST OF TABLES	
	LIST OF FIGURES	
I	INTRODUCTION	1-6
II	REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK	7-21
III	DATA ANALYSIS AND INTERPRETATION	22-42
IV	FINDINGS, SUGGESTIONS & CONCLUSION	43-45
	BIBLIOGRAPHY	46-48
	APPENDIX	49-53

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
3.1	GENDER OF THE RESPONDENTS	23
3.2	AGE OF THE RESPONDENTS	24
3.3	MONTHLY INCOME OF THE RESPONDENTS	25
3.4	FREQUENCY OF VISITING RATION SHOPS	26
3.5	TYPE OF RATION CARD HELD	27
3.6	VIEWS ON IMPROVING WORKING OF RATION SHOP	28
3.7	OBJECTIVES OF GOVERNMENT IN ESTABLISHING PDS	29
3.8	OPINION ON REDUCTION IN WAITING TIME	30
3.9	SATISFACTION WITH NEW SYSTEM OF DIGITALISATION	31
3.10	OPINION OF SPEED OF WORKING	32
3.11	OPINION ON WORKING OF EPOS MACHINE	33
3.12	COMPARISON OF EFFICIENCY OF WORK AFTER EPOS	34
3.13	DOCUMENT HANDLING ERRORS	35
3.14	ECONOMIC EFFICIENCY	36
3.15	OPINION ON REDUCTION IN CORRUPTION	37
3.16	OPINION REGARDING GETTING EXACT QUANTITY OF GOODS	38
3.17	OPINION ON SERVICES RENDERED BY RATION SHOPS	39
3.18	SOURCES OF INFORMATION ON AVAILABILITY OF GOODS	40
3.19	OPINION ON GOODS RECEIVED	41

3.20	SUGGESTIONS OF RESPONDENTS	42
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LIST OF FIGURES

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3.1	GENDER OF THE RESPONDENTS	23
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3.3	MONTHLY INCOME OF THE RESPONDENTS	25
3.4	FREQUENCY OF VISITING RATION SHOPS	26
3.5	TYPE OF RATION CARD HELD	27
3.6	VIEWS ON IMPROVING WORKING OF RATION SHOP	28
3.7	OBJECTIVES OF GOVERNMENT IN ESTABLISHING PDS	29
3.8	OPINION ON REDUCTION IN WAITING TIME	30
3.9	SATISFACTION WITH NEW SYSTEM OF DIGITALISATION	31
3.10	OPINION OF SPEED OF WORKING	32
3.11	OPINION ON WORKING OF EPOS MACHINE	33
3.12	COMPARISON OF EFFICIENCY OF WORK AFTER EPOS	34
3.13	DOCUMENT HANDLING ERRORS	35
3.14	ECONOMIC EFFICIENCY	36
3.15	OPINION ON REDUCTION IN CORRUPTION	37
3.16	OPINION REGARDING GETTING EXACT QUANTITY OF GOODS	38
3.17	OPINION ON SERVICES RENDERED BY RATION SHOPS	39

3.18	SOURCES OF INFORMATION ON AVAILABILITY OF GOODS	40
3.19	OPINION ON GOODS RECEIVED	41
3.20	SUGGESTIONS OF RESPONDENTS	42

CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION

Public Distribution System (PDS) is a structure that is sponsored by a government and includes chain of shops trusted with the work of distributing basic food and non-food commodities to the disadvantaged group of the society at very low prices. The **central** and **state governments** shared the accountability of regulating the Public distribution system.

PDS in India is the largest food security system of its kind in the world. There are 5,35,000 Fair Price Shops (FPS) in our country. A Fair price shops (FPS) is nothing but a ration shop, most popularly known as Public Distribution System.

PDS is a complete government scheme under which subsidized food and non-food items are distributed among poor households. The two interrelated objectives of the PDS system are poverty reduction and improving food security. Essential commodities like rice, wheat, sugar, kerosene are supplied to the people under the PDS at a reasonable price. PDS is a boom to people living below the poverty line. PDS is the primary social welfare and anti-poverty programme of the government of India. The PDS is considered as the principal instrument in system provides triple objectives namely protecting the poor, enhancing the nutritional status and generating a moderate influence on market price.

However, the operational cost of PDS is very high. Our country has more than twice as many ration shops as the number of panchayats or village councils. The nation-wide network aimed at improvement of conditions of poor did not materialize its dream in full as it has been charged with corruptions, inefficiency, lack of transparency and leakage ever since the beginning. To free PDS from these problems, the government implemented digitalization.

Digitization of PDS was expected to ensure that, at every step from the field to fork, the government would track the movement of food grain so that they reached the right beneficiaries. A key component of this initiative is the digitization of the beneficiary database and linking ration cards to Aadhaar number. The project also calls for automation of supply chain, SMS alert to beneficiaries, etc. It also aims to bring in efficiency and transparency in the public distribution supply lest that is prone to leakages and misuse.

The effect of digitization with the appropriate intervention of information and communication technology and software applications will make a vibrant change in Fair price shops.

In line with the Union government's roadmap to computerize three lakh out of the over five lakh ration shops in the country by March 2018, state governments are in different stages of digitizing the database of lakhs of beneficiaries and the commodity transaction processes. India has developed an end-to-end technology solution for the digitization of the vast Public Distribution System. Most of the people are depending on ration shops at least for an item. But in the present situation, the availability of food items is not adequate for the consumers. There is a need for increasing the number of food items given through ration shop and also need to ensure the quality of food grains which are supplied to consumers. The strong intervention from the government to ensure adequate full supply to every poor in the society helps to eradicate poverty by attaining food security.

1.2 STATEMENT OF THE PROBLEM

PDS as a critical component to eradicating poverty faces many problems within the system including illegal sale of food grains in the open market. It includes leakage and illegal sale of food grains in the open market. Lack of grievance redressal mechanism and transparency was defeating the very purpose of the public distribution system.

In order to monitor the distribution system so as to reduce distribution issues and then to make PDS more effective it has been digitalized. Digitization has paved its path towards best governance over the functioning of PDS. This study considers the issue that despite the costly digitalization, old problems still continue to exist in PDS. Like a coin flipside, digitalization has both negative as well as positive effects on customers and dealers. Here the project makes an evaluation of the effectiveness of digitization of ration shop. PDS has been digitalised to monitor the distribution issues and make it more effective.

1.3 SIGNIFICANCE OF THE STUDY

Public Distribution System has suffered a lot of exclusion and inclusion errors. Digitization paves path towards ending these errors and illegal activities. As the PDS is the system undertaken for the general public, it is necessary to study its effectiveness before it much continues with flaws. The satisfaction from the side of the dealers is also an important factor of PDS. So this study may be helpful to the customer as well as the dealers to measure the effectiveness of the new system.

1.4 SCOPE OF THE STUDY

- The study focuses on Public Distribution System in selected areas of Kottayam town.
- It is confined to 50 samples.
- The scope of the study is on the effectiveness and satisfaction after implementation of Electronic Point of Sale (EPOS) machine in ration shops.
- The survey focuses about the effectiveness of digitization of ration shops among customers as well as dealers.

1.5 OBJECTIVES OF THE STUDY

The study has the following objectives:

1. To study how consumer-friendly the E-PDS.
2. To evaluate the role of E-PDS in ensuring quality, quantity and transparency.
3. To evaluate the role of E-PDS in ensuring prompt availability.
4. To evaluate the role of E-PDS in stock taking.

1.6 RESEARCH METHODOLOGY

(a) Source of data

Required data are collected from various primary and secondary sources.

i. Primary data:

Primary data are collected through a survey method from consumers and dealers using questionnaire.

ii. Secondary data:

Secondary data are collected from the internet, newspaper, websites, etc.

(b) Sample design

i. Population:

The population of the study covers ration shop dealers and ration card holders in selected areas of Kottayam town.

ii. Sample size:

51 responses are collected from people belonging to different age groups holding different ration cards from Kottayam town area.

iii. Sampling method:

The method of sampling adopted is convenience sampling.

(c) The method used for the collection of data

The main tool used for data collection is the questionnaire.

(d) Tool for analysis of data

The data collected have been analyzed by means using percentage, tables, graphs, etc.

They are used to express the relationship between variables.

Percentage method is the analysis to represent the raw stream of data as a percentage for a better understanding.

$$\text{Percentage method} = \frac{\text{Number of respondent's}}{\text{Total respondents}} \times 100$$

1.7 LIMITATIONS OF THE STUDY

- The study is completed in a short period of time.
- Data collected through the questionnaire might not be completely reliable, since the respondents might not be fully in their true behavior.
- As this system is implemented recently, there is limited availability of secondary data and review of literature.
- The area chosen for the present study is limited to Kottayam town.
- An advanced statistical tool has not been used for analysis. Data is collected through sample survey, so the reliability of data is limited.
- The time allotted for the study is too short.

CHAPTER 2

REVIEW OF LITERATURE AND THEORITICAL FRAMEWORK

REVIEW OF LITERATURE

Digitalization of ration shops in India was launched in 2012 by the Central Government during 2015 and it was completed in 29 states. Hence most of the available literature was of a biased content based on the political affiliation of the presenter. Here we would like to present the opinion of a few prominent personalities.

2.1 Ram Vilas Paswan (Minister of food and public distribution)

“From computerization of public distribution system to digitalizing ration cards and installation of biometric devices are at different stages of completion. The centre is continuously pursuing state government to make PDS modern and consumer-friendly, a project with a cost of Rs. 884 cr. have been taken up for computerization. Significant achievements have been made on far” Paswan said in a meeting at the parliamentary consultative committee

2.2 C.R. Chaudhary (Minister of state of department of consumer affairs)

“End to End computerization of PDS operation in association with the state and union territories to improve the efficiency of PDS and to address various challenges such as leakage and diversion of food grains, elimination of fake and bogus ration cards”. He told that the scheme of End to End computerization is being implemented to identify and find out duplicate ration cards through ration shops. Said to Shimla M.P. Virender Kashyap in Lok Sabha during Zero hour talks.

2.3 Dhiraj Wali (Vice-President, Robert Bosch Engineering and Business Solutions)

“Each State has its own different requirements for PDS supplies .So, we have developed the solution in such a manner that it’s easy customizable,” said Dhiraj Wali, Vice president, Robert Bosch Engineering and Business Solution. A pilot was run for three months in Kerala and Orissa.

“On one side digitalization prevents possibilities of corruption; on the other side the mobile platform offers an opportunity to the government to provide incentives to fair price shop owners to make use of the flexible system to operationalise additional functions.”

2.4 SandhyaKamat (Civil supplies director)

“This will ensure transparency and will eliminate any scope for corruption in availing of rations.”

2.5 Times of India (leading news agency)

“The use of biometrics and the process of linking every ration card holder’s Aadhaar number with the civil supplies department is part of a nation-wide project to digitize operations and ensure deserving families get their ration quotes.”

2.6 Avinash K Srivastava (Secretary of consumer affairs)

“The existing PDS has many technologies limitations, a mobile device, on the other hand offers many advantages like the ability to scale by adding more and more features.

2.7 Rohit Kumar Parmar (Economic advisor of consumer affairs)

“If the outlets go in for mobile technology, fair price shops can become multifunctional, they can be used to distribute not only rice, wheat etc. but also the benefits of government welfare schemes.

2.8 G.S. Bali (State food and supplies Minister)

“Computerisation of functioning of the department which is nearly complete would help in automation of supply chain and information about the movement of rationed articles from government agencies to godowns and further to depots would be known instantly.”

THEORITICAL FRAMEWORK

INTRODUCTION

The public distribution system has a great role in our economy. It was established by the government of India under the ministry of consumer affairs food and public distribution. It is managed jointly by state and government of central India. The public distribution system is also known as ration shops.

The public distribution system (PDS) in India is the largest food security system of its kind in the world. The Digitization of PDS will ensure that at every step from field to fork, the government would track the movement of food grains so that they reached the right beneficiaries. Cleaning up the back-end of the subsidized public would out our 6 million buyers ration cards, plugging leaks to the tune of Rs.4200crores in two years. In its bid to better target subsidies and ensure leakage free distribution of food grains, the government used direct benefit transfer (DBT) and automated ration shops, a statement issued by the ministry said. DBT allows the transfer of subsidies to bank accounts of beneficiaries, who then buy food from the open market. Automation ensures food grains are distributed with ration shops through point-of-sale (POS) device that authenticates beneficiaries and records the number of subsidized grains given to a family. The state is using central assistance to install POS devices in ration shops that are linked to the Aadhar unique identification numbers of beneficiaries. As a result of these efforts, 6.14 million duplicate ration cards have been cancelled in the past two years stopping the division and misuse of PDS food grain.

To successfully implement the National food security Act (NFSA) the central government has focused on end-to-end computerization, it will bring transparency and check leakages of food grain, the food ministry said in its statement.

EVOLUTION OF PUBLIC DISTRIBUTION SYSTEM

The PDS, as it is known in India, has evolved over a long time. Famines and droughts causing acute scarcity conditions and the measures taken by the government to help the victims has been

the typical way in which the food security system began to take shape. Thus, the measures have been in the nature of the fire-fighting operation “concerned only with putting out the flames and providing a modest measure of temporary relief to the affected population. An effort of this sort was taken up for the first time in 1939 under the British regime when the Second World War started. The government thought of distributing the food grains to the poor of some selected cities, which were facing severe scarcity conditions, and also situations – where private, failed to provide commodities affordable by the poor. Later in 1943, after the great Bengal famine, this distribution system was extended to some more cities and towns. Prolonged periods of economic stress and disruption like wars and famines gave rise to a form of food security system. Initially, it concerned itself primarily with the management of scarce food supplies and subsequently found it necessary to use a more organized and institutionalized approach including measures suspending normal activities of market and trade. This form of providing food security existed in India for long years, in the shape of statutory rationing in selected urban areas and continues to be present even today in a few urban centres. The growth of PDS in India can be grouped into three time periods.

i) 1939 to 1965

ii) 1965 to 1975

iii) 1975 onwards.

In the first period, i.e. up to mid-sixties, the PDS was seen as a mere rationing system to distribute the scarce commodities and later it was seen as a Fair Price System in comparison with the private trade. Rice and Wheat occupied a very high share in the food grains distribution. Need for extending the PDS to rural areas was realized but not implemented. The operation of PDS was irregular and dependent on imports of PL480 food grains with little internal procurement. In effect, imports constituted a major proportion in the supplies for PDS during this period. Procurement price offered were not remunerative. By the mid 60’s it was decided to look much beyond management of scarce supplies in critical situations. Stoppage of PL480 imports forced the government to procure grains internally. In effect, India took a quantum leap in the direction of providing a more sustainable institutional framework for providing food security.

The setting of FCI and Agricultural Prices Commission (APC) now known as the Bureau of Agricultural Costs and Prices (BACP). Commission in 1965 marked the beginning of this phase. On the basis of BACP's recommended prices, the FCI procures the food grains to distribute through the PDS and a part of the procured quantity is kept as "buffer stock" to meet any unforeseen crisis situation. The key components of this system were institutionalized arrangements and procedures for procurement, stocking, and distribution of food grains. What is more important to food grains to note is that the food security system during this period evolved as an integral part of a developing strategy to bring about a striking technological change in selected food crops, especially rice and wheat. It provides effective price and market support for farmers and deployed a wide range of measures to generate employment and income for the rural poor with a view to improving their level of well-being including better physical and economic access to food grains. In the third period, there was an increase in the food grains production in the country. The buffer stock accumulation too increased heavily. With this, initial emphasis on buffer stock maintenance and price stabilization shift to increase in PDS supplies. In the fourth plan, it states that "in so far as food grains are concerned the basic objective is to provide the effective PDS. The procured quantities wherein excess compared to the need, PDS meets and minimum reserve was maintained. In the fifth five year plan, programmes such as food for work, Antyodaya, etc..." where started with a view to alleviate poverty as well as to reduce the overstocking of FCI godowns. The imports gradually declined in this period and during the year 1975; there was a net export of food grains though it was a small quantity. Imports were continued with relatively very less quantity to maintain the level of buffer stocks. The government strengthened the PDS in this period so that it remained a "stable and permanent feature of our strategy to control prices, reduce fluctuations in them and achieve an equitable distribution of essential consumer goods"

Till the late '70s the PDS was largely confined to the urban population and did not guarantee adequate food to the rural poor in times of crises. During the late 1970s, and early '80s some state governments extended the coverage of PDS to rural areas and also introduced the target grouping approach. The states are Kerala Gujarat Tamil Nadu and Andhra Pradesh. This was also because there was a marked change in the food situation particularly in the later years, during '80s and early '90s. thus the net availability of food grains which had increased from 74 million tonnes in 1968 to 99 million tonnes in 1977, witnessed a rapid rise in later years reaching

158 million tonnes in 1991(government of india1994). Thus while the PDS was started initially to meet the crisis situation, by the sixth five-year plan, the PDS was viewed “as an instrument for efficient management of essential consumer goods” necessary for” maintaining stable price consideration”.

Challenges facing TPDS

Successful implementation of the TPDS is faced with some of the following challenges:

- Leakages and diversion of food grains
- Inclusion/exclusion errors
- Fake and bogus ration cards
- Lack of transparency regarding allocation, off-take, availability of food grains at FPS, etc.
- Weak grievance redressal and social audit mechanisms.

GOALS OF PDS

The goal of PDS does not restrict itself with the distribution of Rationed articles. Making available adequate quantities of essential articles at all times, in places accessible to all, at prices affordable to all and protection of the weaker section of the population from the vicious spiral of rising prices is the broad spectrum of PDS. More specifically, the goals of PDS are:

- ❖ Make goods available to consumers, especially the disadvantaged / Vulnerable sections of society at fair prices
- ❖ Rectify the existing imbalances between the supply and demand for consumer goods; Check and prevent hoarding and black marketing inessential commodities
- ❖ Ensure social justice in the distribution of basic necessities of life;
- ❖ Even out fluctuations in prices and availability of mass consumption goods

❖ Support poverty-alleviation programmes, particularly, rural employment programmes, (SGRY/SGSY/IRDP/ mid-day meals, ICDS, DWCRA, SHGs and Food for Work and educational feeding programmes).

Planning and PDS

The evolution of the PDS in the country also corresponded with the planning for PDS and the changes in the perspectives of plans over a period of time. From the beginning of first, five year plan 1951- 56 the need for PDS on a regular basis for the country to provide help to the poor and to some extent for generating downward pressure on the crisis has been emphasized. In the fourth five year plan 1969-74 the initial emphasis on buffer stock maintenance and price, stabilization was shifted to increase PDS supplies. By the fifth five-year plan 1974-79 a major role for PDS was envisaged in ensuring supplies of essential goods of mass consumption to people at reasonable particularly to the weaker sections of the society. During sixth five-year plan 1980-85, PDS was expected to develop such that it remains here after a stable and permanent feature of the strategy to control prices, reduce fluctuations and achieve equitable distribution of essential consumer goods. Seventh plan 1985-90 has specified that the PDS will be a permanent feature of the strategy to control prices, reduce fluctuations and achieve equitable distribution of essential consumer goods. During eighth five year plan 1990-95 the supply of food grains through PDS were increased by extending the coverage to more rural areas and use of food grains for employment generation programmes, like national rural employment programme (NREP) and rural landless employment generating programmes (RLEG). Subsequently, these programmes were modified and combined into Jawahar Rozgar Yojana (JRY). The introduction of providing food security through the generation of employment and linking it to programmes of poverty alleviation has added yet other dimensions to the policies.

National Food Security Act, 2013

The government has notified the National Food Security Act (NFSA), 2013 on 10th September 2013 with the objective to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity. The Act provides for coverage of up to 75% of the rural population and up to 50% of the urban population for receiving subsidized food grains under TPDS, thus covering

about two-thirds of the population. Persons belonging to eligible households will be entitled to receive 5 kg of food grains per person per month at subsidized prices of Rs. 3/2/1 per kg for rice/wheat/coarse grains. The existing Antyodaya Anna Yojana (AAY) households, which constitute the poorest of the poor, will continue to receive 35 kg of food grains per household per month.

The Act also stipulates that the Central and State Governments shall endeavour to progressively undertake necessary reforms in the TPDS in consonance with the role envisaged for them in this Ordinance. The reforms shall inter-alia, include-

- Application of information and communication technology tools including end-to-end Computerisation in order to ensure transparent recording of transactions at all levels and prevent diversions;
- Leveraging Aadhaar for unique identification, with biometric information.
- Full transparency of records.

Procurement of food grains from farmers

The food grains provided to beneficiaries under TPDS are procured from farmers at MSP. The MSP is the price at which the FCI purchases the crop directly from farmers; typically the MSP is higher than the market price. This is intended to provide price support to farmers and incentive production. Currently, procurement is carried out in two ways: (i) centralized procurement, and (ii) decentralized procurement. Centralized procurement is carried out by the FCI, where FCI buys crops directly from farmers. Decentralized procurement is a central scheme under which 10 states/Union Territories (UTs) procure food grains for the central pool at MSP on behalf of FCI. The scheme was launched to encourage local procurement of food grains and minimize expenditure incurred when transporting grains from surplus to deficit states over long distances. These states directly store and distribute the grains to beneficiaries in the state. Any surplus stock over the state's requirement must be handed over to FCI. In case of a shortfall in procurement against an allocation made by the Centre, FCI meets the deficit out of the central pool. The Centre procures and stores food grains to (i) meet the prescribed minimum buffer stock norms for food security, (ii) release food grains under TPDS on a monthly basis, (iii) meet emergency situations arising out of unexpected crop failures, natural disasters, etc., and (iv) sell through the

Open Market Sale Scheme (OMSS).¹⁰ The central government introduced the Open Market Sale Scheme (OMSS) in 1993, to sell food grains in the open market; this was intended to augment the supply of grains to moderate or stabilize open market prices.

Storage and Allocation of food grains

Apart from the food grains requirement for immediate distribution under TPDS, the central government maintains minimum buffer reserves of food stocks for emergencies. The food grains procured for TPDS and other contingencies are maintained and stored as the central pool stock. FCI is the main government agency entrusted with the storage of food grains in the central pool. According to the storage guidelines of the FCI, food grains are normally stored in covered godowns, silos, and in the open, referred to as Covered and Plinth (CAP).¹¹ However, FCI own storage capacity has been insufficient to accommodate the central pool stock of food grains. As a result, FCI hires space from various agencies such as the central and state warehousing corporations, state government agencies and private parties. In an evaluation of the storage management of food grains by FCI, the Comptroller and Auditor General (CAG) noted that there is sub-optimum utilization of the existing storage capacity available with FCI and states.¹⁰ CAP storage involves storage on elevated plinths with polythene covers specially made for this distribution to BPL, AAY and APL families.

Allocation for BPL and AAY families is done on the basis of the number of identified households. On the other hand, the allocation for APL families is made on the basis of: (i) the availability of food grains stocks in the central pool, and (ii) the past offtake (lifting) of food grains by a state from the central pool. Given the food grains stocks in FCI, the Centre has the discretion to allocate more grains to states on an ad-hoc basis. In the past, ad-hoc allocate the central government allocates food grains from the central pool to the state governments for ones have been provided in the event of floods, droughts, and festivals, etc.

Distribution of food grains to beneficiaries

The responsibility of distributing food grains is shared between the Centre and states. The Centre, specifically FCI, is responsible for the inter-state transport of food grains from procuring to consuming states, as well as delivering grains to the state godowns. Once FCI transports grains to the state depots, distribution of food grains to end consumers is the responsibility of

state governments. Distribution of food grains is as complex as the policy of procurement. It involves the following decisions.

1. What quantity of food grains must be allocated to different states?
2. What should be the issue price?
3. What should be the distribution agency at the retail level and the allocation agency at the retail level and the allocation agency at the different regional levels?
4. What should be the arrangements for transportation, storage, and coordination?
5. What should be the retail price and margins of different agencies?

The fixation of the total quota to be supplied to each state is determined by the Central Government, keeping in view the production of food grains in the state and the off – take in the previous months, prices for the consumer are determined by taking into consideration, marketing costs, open market prices fiscal burden and the paying capacity of the consumer.

Coverage of PDS in India

The PDS is a rationing mechanism that entitles households to specify selected commodities at subsidized prices. Eligible households are given a ration card that entitles them to buy fixed rations (varying with household size and house compositions) or selected commodities. The six essential commodities supplied through the PDS nationally, are: rice wheat, sugar, edible oils, kerosene, and coal. Additional commodities like pulses, salt, tea are supplied selectively. The commodities are made available through a network of fair price shops. In 1994, there were around 0.42 million ration shops in the country. These shops were run by private agents, cooperatives and few are state-owned. An important feature of PDS is that the responsibility for implementation, monitoring and for enforcement of legal provisions relating to public delivery with the state government.

Since the mid-1980's coverage of PDS was extended to rural areas in some states. Thus it acquired the status of welfare programme. An effort was made to extend subsidized food grains in 1985 in all the tribal blocks covering about 57 million persons. The revamped PDS has been

later expanded to cover 1752 blocks with a high incidence of poverty covering 164 million persons.

Public Distribution System in Kerala

The salient features of Kerala's public distribution system were its universal coverage, high level of utilization, physical access made possible through a vast network of retail outlets, rural bias and progressive utilization of the system. The origin of public distribution of food grains in Kerala can be traced back to the Second World War. In order to make good the deficiency and to safeguard the interested of the common man against exploration by the private traders, a system of PDS has been in practice in the state as early as the pre-independent days, which was discontinued for a short spell from 1954 to 1956. The State Government introduced an informal system of distribution of rice at subsidized rates to lower income group in 1957 and the system continued till October 1964. The state experienced an acute shortage in the availability of rice in 1964 consequent on the restriction imposed in the movement of rice by the southern states of India. Formal rationing was introduced throughout the state with effect from 1st November 1964. All household in Kerala possesses ration cards with which they can purchase rice, wheat, sugar, and kerosene, in a specific quantity per week or month at subsidized rates. The result is that the retail price of essential commodities cannot rise steeply as compared to other locations in India, even though Kerala is a consumer State. The larger percentage of Kerala villages are served by a fair price shop within two kilometres as compared to only 35 percent of India's villages generally.

In 1990, there were 50.52 lakhs ration cards in Kerala and ration articles are issued through 296 wholesale ration depots scattered all over Kerala. During 2010, there was 14239 ration retail shops in Kerala as against 13007 shops in 1990. Out of these 14239 retail shops, 12428 shops are in rural areas. The benefits of the system were equitably spread across the income group in both rural and urban areas. Each retail outlet served about 400 households and, no individual needed to walk more than 2 km to fetch his ration. The system required a certain minimum off take in all these shops if they are to be viable. Targeted Public Distribution System (TPDS) is a well targeted and properly functioning PDS is an important constituent of the strategy for poverty

alleviation. In order to make PDS more responsive to the need of the poor, Targeted Public Distribution System was introduced in June 1997. In the TPDS, subsidies are restricted to BPL household. A profound consequence of TPDS is that it is the Central Government that fixes the BPL population within a state. The TPDS has affected Kerala's PDS in several ways. First, as 25 percent of Kerala's population have been termed BPL by the Planning Commission, the guaranteed and subsidized allocation of grain for BPL households under the TPDS accounts for only 10 percent of the previous PDS supply. Given that Kerala is a food deficit state, in the pre-TPDS period, the state's own production accounted for 20 per cent of grain requirements, the PDS accounted for 32 per cent and the rest came from private trade.

Computerization of Supply-chain management

Subsequent to computerization of the supply chain, States/UTs can maintain the correct account of food grains allocated and delivered at FPS, ensure efficient and timely delivery of food grains to beneficiaries, minimize leakages/diversion of food grains and encourage transparency in the system. The activities involve the use of ICT tools for tracking of movement of allocated food grains at multiple stages i.e. from Food Corporation of India (FCI) godowns to intermediary storage/ distribution points and further to FPSs. Food grains receipt and issuance will be entered into the system and thus, the stock position of TPDS commodities for all godowns can be created which would be monitored at State/UT level. States/UTs will generate District or FPS-wise online allocation orders on the basis of their allocation policy. For movement of food grains from FCI to State Godowns, computerization covers operations like receipt of payment from State agencies, generation of release order against allocation, generation of truck-challan, gate-pass and capturing the information pertaining to the receipt of goods by State agencies. Information related to food grains lifting from FCI would be made available to State agencies through the online application.

ANY RATION SHOPS BENEFICIARIES CAN GET FOOD GRAIN QUOTA FROM

The centre is working on the probability of food grains entitlement under PDS and the eligible beneficiaries can get their quota of grains from any ration shops, food minister Ram Vilas Paswan said. Addressing the first meeting of food commission chairman from states/UTs the minister said the "centre is working on the probability of PDS entitlement and this will be

progressively extended “. He said once the probability of PDS implemented, beneficiaries will be free to receive their entitlements from any ration shops without being bound to a particular shop.

AUTOMATING THE RATION SHOPS

Computerization, digitization, and automation are often seen as silver bullets to fix the gaps in the system. But clearly, there is a problem with the way we are carrying on our digital journey. There are 535,000 FPS is nothing but ration shops. More popularly known as PDS outlet. This means our country has more than twice as many ration shops as the number of panchayats or village councils. Ideally, all villagers should have a ration shop where people can go and buy sharply subsidized monthly ration. As we know their shops are supposed to provide rice, wheat, sugar, salt and kerosene among other necessary items. They are supposed to serve about 400 million people below poverty line (BPL). In India with the debut of the food security law, FPS has become even more important.

PPS has been charged with corporation inefficiency and leakage ever since the beginning every BPL family is entitled to 35kg rice or wheat every month However food grain supplied very high share in the food grains distribution. Need for extending the PDS to rural areas was realized but not implemented. The operation of PDS was irregular and depended on imports of PL480 food grains with little internal procurement. In effect, imports constituted major proportions in the supplies for PDS during this period. Procurement price offered were not remunerative. In the 60s it was decided to look much beyond the management of scarce supplies in critical situations. Stoppage of PL480 imports forwards the government to produce grains internally. In effect, India took a quondam keep in the direction of providing food security. Ration shops are either not enough to meet demand or are of inferior quality. So far, there are only two states Chhattisgarh and Odisha that have shown extraordinary in making PDS work efficiently. It is hard to get into the details of why both have performed best on this count, but it is clear that digitization and automation with the appropriate intervention of information and communications technology and software applications have played a critical role in making FPS deliver the maximum number of eligible people.

EPOS

Electronic point of sale (EPOS) is a combination of hardware and software designed to help you to run your business more efficiently. Where traditional till systems record sales, Epos systems not only record this transaction information but can then generate defined reports in response to the input data. This allows owners and managers more insight into their business allowing them to make actionable changes to increase revenue.

The touch screen monitor and scanner are two important parts of an EPOS system, as they actively involved in the transaction is likely to occur faster and leave all parties happier. Of course, happy customers are more likely to return to generate more profits for the business. The information about sales is automatically stored. There is no longer need to panic over a misplaced document or paper.

The EPOS system can eliminate errors much quicker than a person, especially if an employee has made the error. The system can check counts, keeps pricing consistent and also allows you to change pricing based such as stock analysis special offers and deals.

When you have installed the EPOS system, you can use it to track your staff's activity, allowing you to see who did what and when. The system can also monitor the performance of staff at the checkout and also reduce wastage by making employees responsible for their own cash drawers. This means the business can recognize their top performing staff, identify weakness and also create a competitive environment.

CHAPTER – 3

DATA ANALYSIS AND INTERPRETATION

3.1 GENDER OF THE RESPONDENTS:

Table 3.1 Gender of respondents

Gender	Gender of respondents	Percentage
MALE	21	40.4%
FEMALE	31	59.6%
TOTAL	52	100

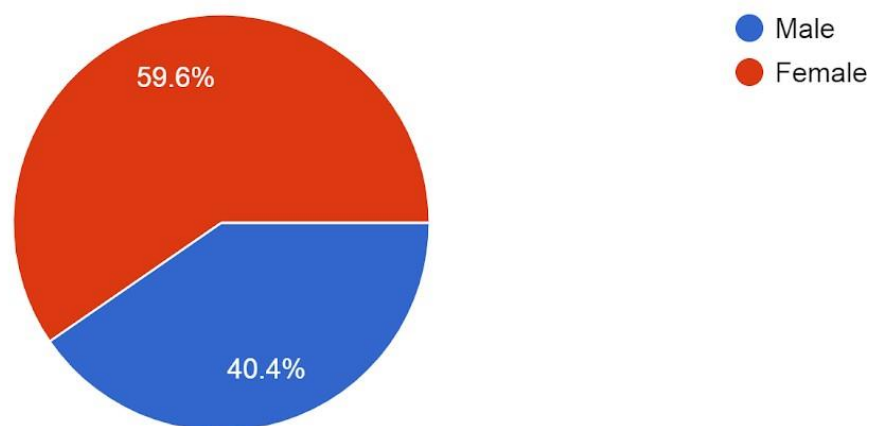
Source: Primary Data

Interpretation

Table 3.1 shows the gender-wise classification of the dealers. Out of 52 respondents, 31 dealers are females and 21 males i.e., there are more females compared to males.

Fig 3.1 Gender of respondents

52 responses



Source: Table 3.1

3.2 AGE OF THE RESPONDENT:

Table 3.2 Age-wise classification of respondents

Age	Age of respondents	Percentage
Below 30	6	11.5%
31-40	5	9.6%
41-50	18	34.6%
50 above	23	44.2%
TOTAL	51	100

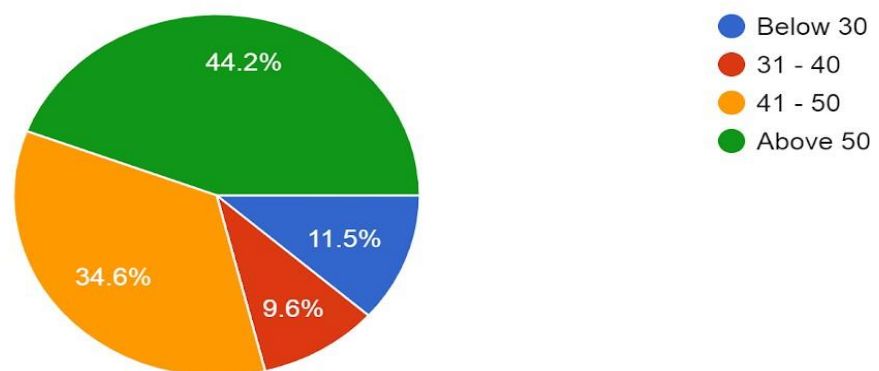
Source: Primary Data

Interpretation:

Table 3.2 shows the age group of respondents. It is found that majority of the respondents are above 50 years of age i.e. 44.2% percentage comes under this age groups.

Fig 3.2 Age-wise classification of respondents

52 responses



Source: Table 3.2

3.3 MONTHLY INCOME OF THE RESPONDENTS:

Table 3.3 Monthly income of respondents

Monthly income	No. of respondents	Percentage
Below 10000	11	21.2
10001- 30000	15	28.8
30001- 50000	19	36.5
Above 50000	7	13.5
TOTAL	52	100

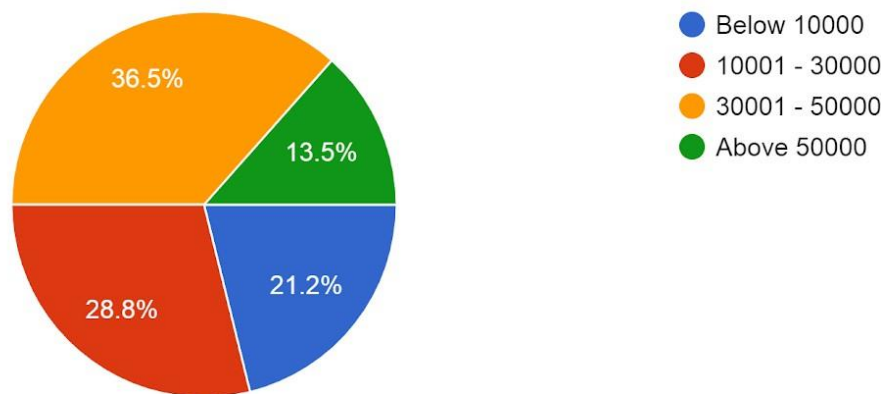
Source: Primary Data

Interpretation:

Table 3.3 shows the monthly income of respondents. It is found that almost half of the respondents who come to ration shops earn income below 50000.

Fig 3.3 Monthly income of respondents

52 responses



Source: Table 3.3

3.4 FREQUENCY OF VISITING RATION SHOPS:

Table 3.4 Frequency of visiting ration shops

Particulars	No. of respondents	Percentage
Weekly	7	13.5%
Monthly	32	61.5%
Based on availability of goods	13	25%
TOTAL	52	100

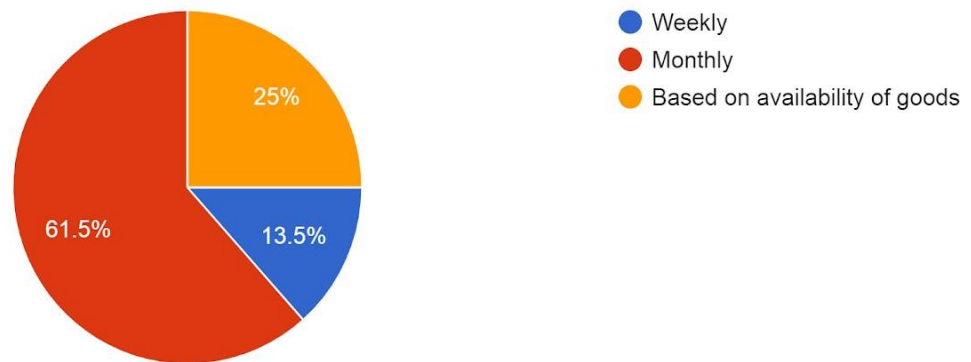
Source: Primary Data

Interpretation:

Table 3.4 shows that most people (61.5%) visit ration shops on a monthly basis and around 25% of the people visit based on the availability of goods.

Fig 3.4 Frequency of visiting ration shops

52 responses



Source: Table 3.4

3.5 TYPE OF RATION CARD HELD:

Table 3.5 Type of ration card held

Particulars	No. of respondents	Percentage
Non-priority	2	3.8%
APL	26	50%
BPL	19	36.5%
AAY	5	9.6%
TOTAL	52	100

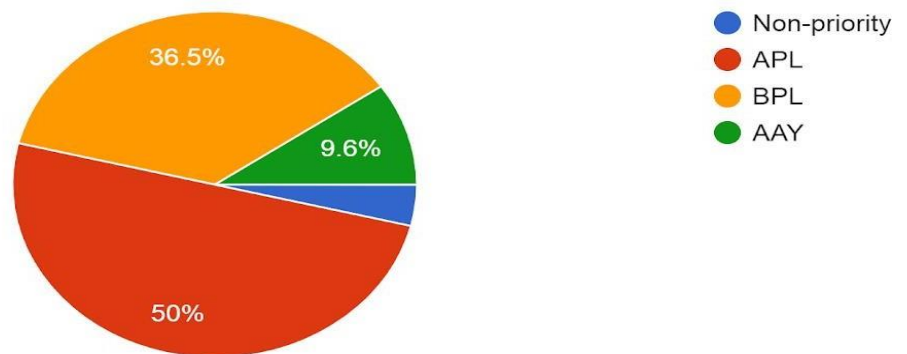
Source: Primary Data

Interpretation:

Table 3.5 shows that almost half of the people (50%) visiting ration shops are Above Poverty Line (APL).

Fig 3.5 Type of ration card held

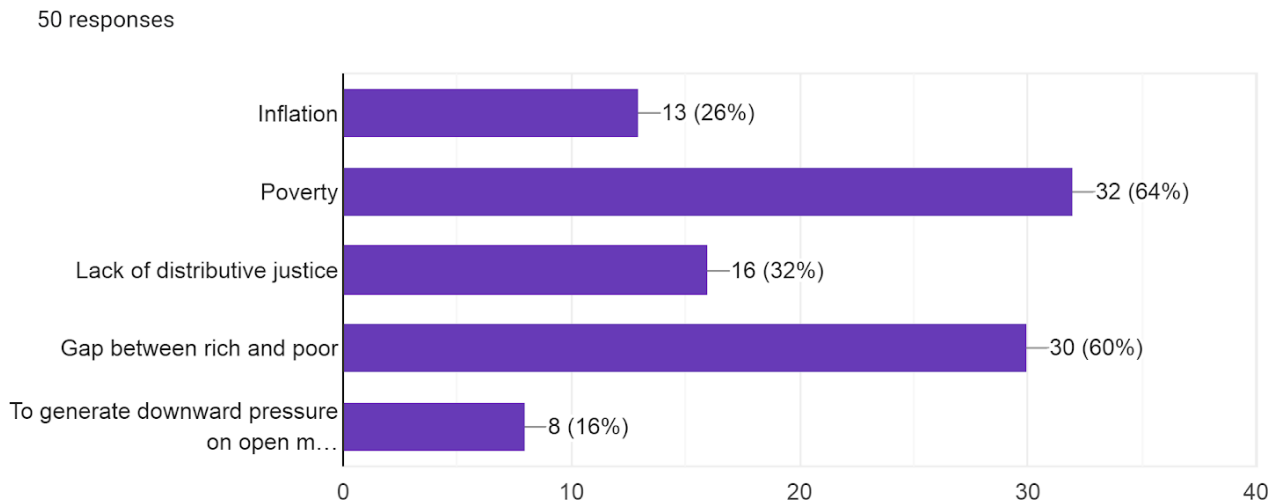
52 responses



Source: Table 3.5

3.6 OPINION ON REASONS FOR GOVERNMENT TAKING INITIATIVE TO IMPROVE RATION SHOPS:

Fig 3.6 Opinion of respondents on reasons for government taking initiative to improve ration shops

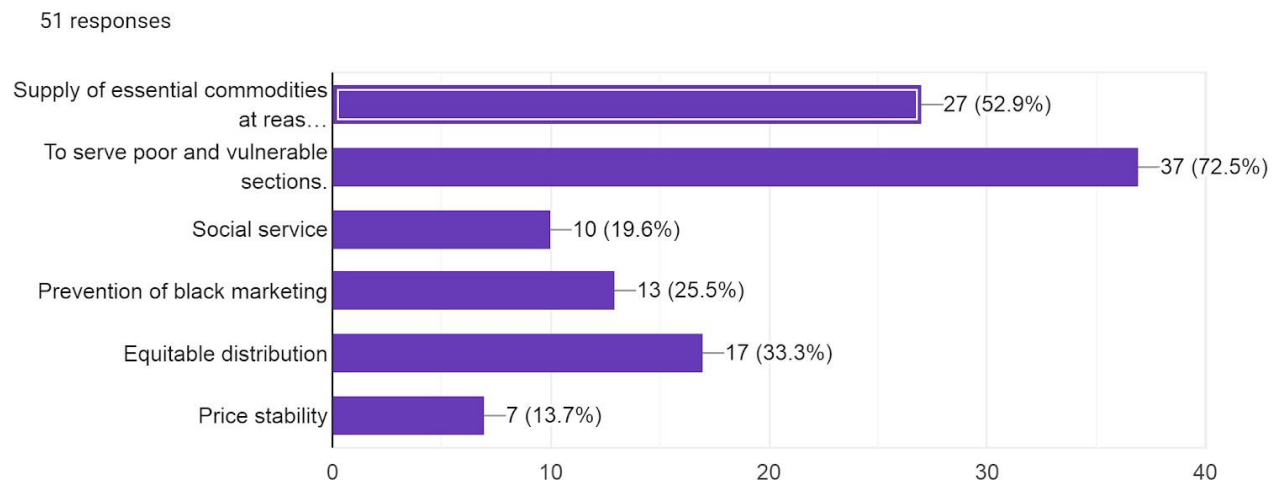


Interpretation:

64% of the people think that the government has taken this initiative to reduce poverty and many say it is to reduce the gap between the rich and the poor.

3.7 OPINION OF RESPONDENTS ON THE OBJECTIVES OF GOVERNMENT IN ESTABLISHING PDS:

Fig3.7 Opinion of respondents on the objectives of government in establishing PDS



Interpretation:

Over 70% of the people think that the main objective for government in establishing PDS is to serve the poor and vulnerable sections and over 50% think it is to supply essential commodities at reasonable prices.

3.8 OPINION ON REDUCTION IN WAITING TIME SPEND BY RESPONDENTS IN RATION SHOP:

Table 3.8 Opinion on reduced waiting time

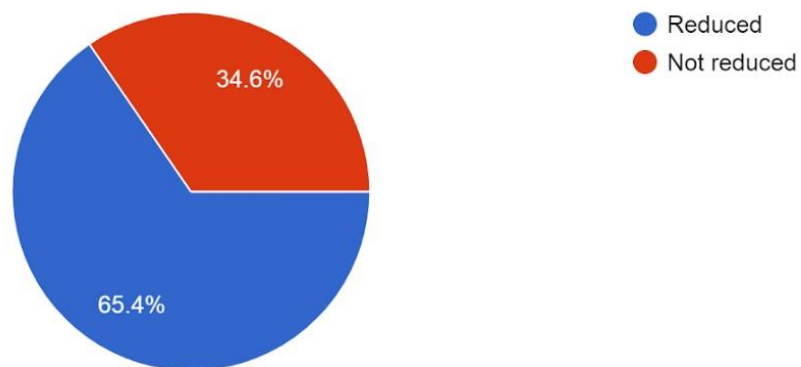
Particulars	No. of respondents	Percentage
Reduced	34	65.4%
Not Reduced	18	34.6%
TOTAL	52	100

Source: Primary Data

Interpretation:

Table 3.8 shows that more than half of the people (66%) visiting ration shops are of the opinion that waiting time spent in ration shops has reduced.

Fig 3.8 Opinion on reduced waiting time



Source: Table 3.8

3.9 SATISFACTION OF RESPONDENTS WITH THE NEW SYSTEM OF DIGITALISATION ADOPTED IN RATION SHOPS

Table 3.9 Satisfaction with the new PDS system

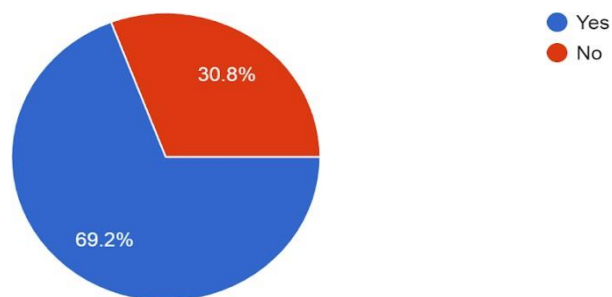
Particulars	No. of respondents	Percentage
Yes	34	69.2%
No	18	30.8%
TOTAL	52	100

Source: Primary Data

Interpretation:

Table 3.9 shows that more than half of the people (69.2%) visiting ration shops are satisfied with the new system of digitalization adopted in ration shops.

Fig 3.9 Satisfaction with the new PDS system



Source: Table 3.9

3.10 OPINION OF RESPONDENTS REGARDING SPEED OF WORKING OF RATION SHOPS WITH THE NEW SYSTEM:

Table 3.10 Opinion on change in working of ration shops

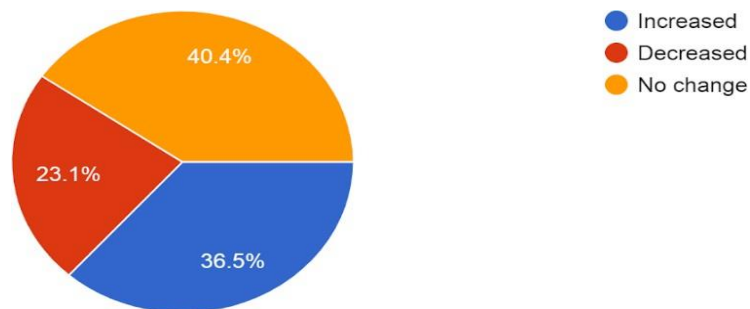
Particulars	No. of respondents	Percentage
Increased	19	36.5%
Decreased	12	23.1%
No change	21	40.4%
TOTAL	52	100

Source: Primary Data

Interpretation:

Table 3.10 shows that most of the people (40.4%) visiting ration shops think that the speed of working of ration shops has no change with the new system of digitalization.

Fig 3.10 Opinion on change in working of ration shops



Source: Table .3.10

3.11 OPINION ON THE WORKING OF ELECTRONIC POINT OF SALE MACHINE (EPOS):

Table 3.11 Opinion on the working of EPOS

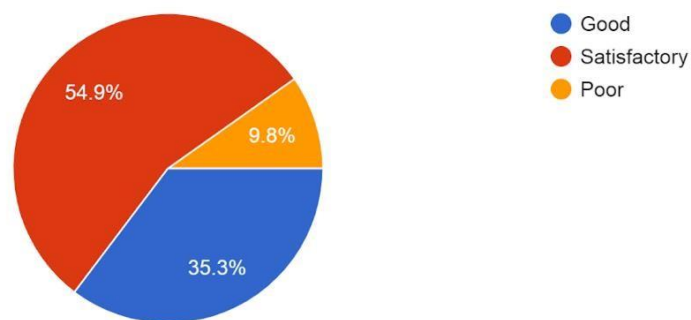
Particulars	No. of respondents	Percentage
Good	18	35.3%
Satisfactory	28	54.9%
Poor	5	9.8%
TOTAL	51	100

Source: Primary Data

Interpretation:

Table 3.11 shows that most of the people (54.9%) visiting ration shops think that the working of EPOS machine is only satisfactory. Around 9.8% of the people feel the working of EPOS machine is poor.

Fig. 3.11 Opinion on the working of EPOS



Source: Table 3.11

3.12 COMPARISON ON THE EFFICIENCY OF WORK AFTER INTRODUCTION OF EPOS MACHINE:

Table 3.12 Comparison on efficiency of work after introduction of EPOS

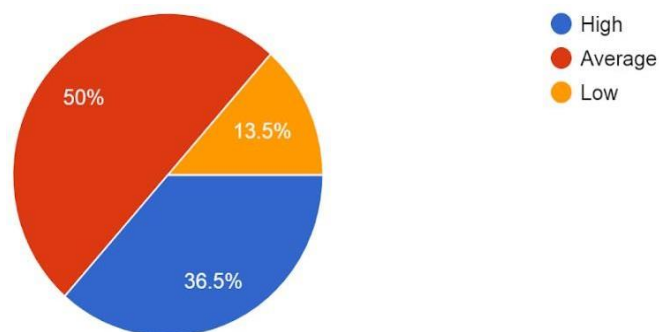
Particulars	No. of respondents	Percentage
High	19	36.5%
Average	26	50%
Low	7	13.5%
TOTAL	52	100

Source: Primary Data

Interpretation:

Table 3.12 shows that half of the people (50%) visiting ration shops think that the efficiency of work after introduction of EPOS machine is only average. However around 37% of the people feel that it is high.

Fig 3.12 Comparison on efficiency of work after introduction of EPOS



Source: Table 3.12

3.13 REDUCTION IN DOCUMENT HAANDLING ERRORS:

Table 3.13 Opinion regarding reduction in document handling errors

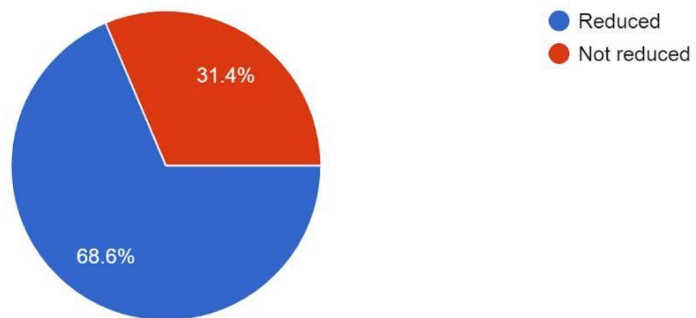
Particulars	No. of respondents	Percentage
Reduced	16	68.6%
Not Reduced	35	31.4%
TOTAL	51	100

Source: Primary Data

Interpretation:

Table 3.13 shows that over half of the people (69%) visiting ration shops think that document handling errors have been reduced. However around 31.4% of the people do not feel so.

Fig 3.13 Opinion regarding reduction in document handling errors



Source: Table 3.13

3.14 OPINION OF THE RESPONDENTS REGARDING ECONOMIC EFFICIENCY OF THE SYSTEM:

Table 3.14 Opinion regarding economic efficiency of the EPOS system

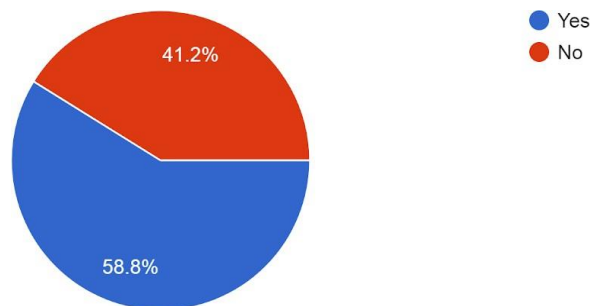
Particulars	No of respondents	Percentage
Yes	30	58.8
No	21	41.2
TOTAL	52	100

Source: Primary data

Interpretation:

Table 3.14 shows that over half of the people (59%) visiting ration shops feel that the system is economically efficient.

Fig 3.14 Opinion regarding economic efficiency of the EPOS system



Source: Table 3.14

3.15 OPINION OF THE RESPONDENTS REGARDING REDUCTION IN CORRUPTION:

Table 3.15 Opinion of the respondents regarding corruption

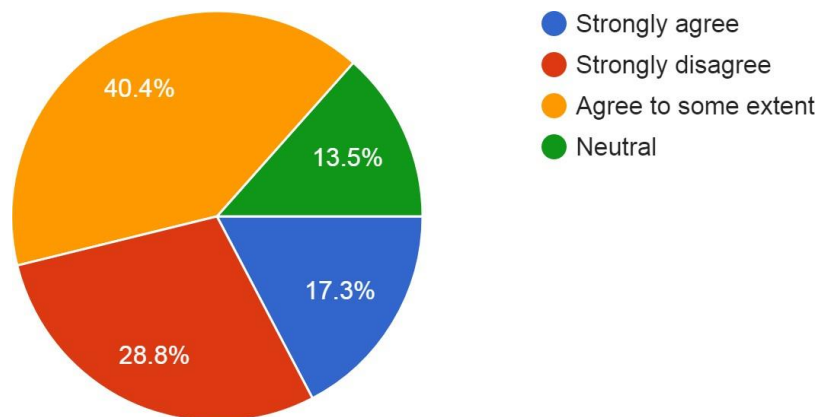
Particulars	No of respondents	Percentage
Strongly agree	9	17.3
Strongly disagree	15	28.8
Agree to some extent	21	40.4
Neutral	7	13.5
TOTAL	52	100

Source: Primary data

Interpretation:

Table 3.15 shows that around (40.4%) people visiting ration shops agree to some extent that corruption has been reduced.

Figure 3.15 Opinion of the respondents regarding corruption



Source: Table 3.15

3.16 OPINION REGARDING GETTING EXACT QUANTITY OF GOODS:

Table 3.16 Opinion regarding getting goods with enough quantity

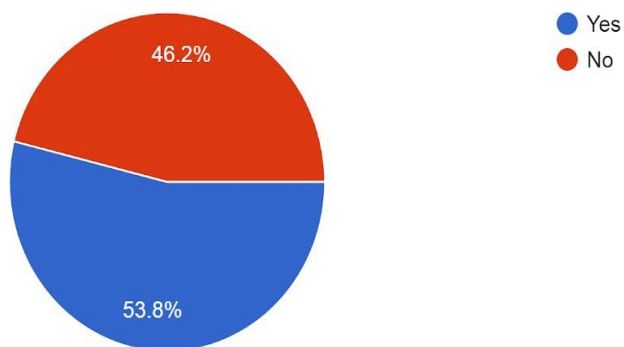
Particulars	No of respondents	Percentage
Yes	28	53.8%
No	24	46.2%
TOTAL	52	100

Source: Primary data

Interpretation:

Table 3.16 shows that over half of the people (54%) visiting ration shops agree that they get the exact quantity of goods.

Figure 3.16 Opinion regarding getting goods with enough quantity



Source: Table 3.16

3.17 OPINION OF THE RESPONDENTS REGARDING ADEQUACY OF SERVICES RENDERED BY RATION SHOPS

Table 3.17 Opinion regarding services rendered by ration shops

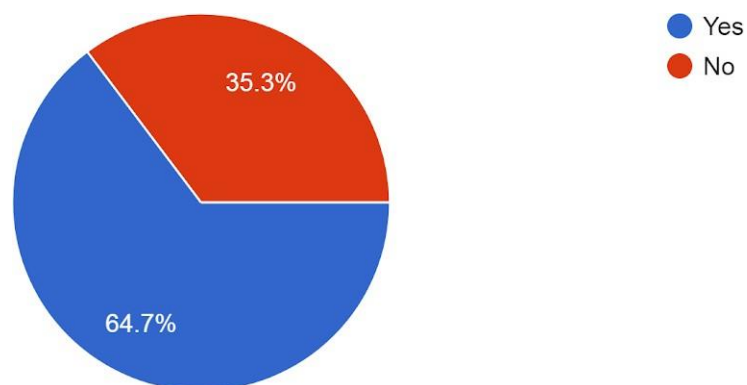
Particulars	No of respondents	Percentage
Yes	33	64.7%
No	18	35.3%
TOTAL	51	100

Source: Primary data

Interpretation:

Table 3.17 shows that over half of the people(65%) visiting ration shops are satisfied with the services rendered.

Figure 3.17 Opinion regarding services rendered by ration shops



Source: Table 3.17

3.18 SOURCES OF INFORMATION ON AVAILABILITY OF GOODS:

Table 3.18 Showing sources of information on availability of goods

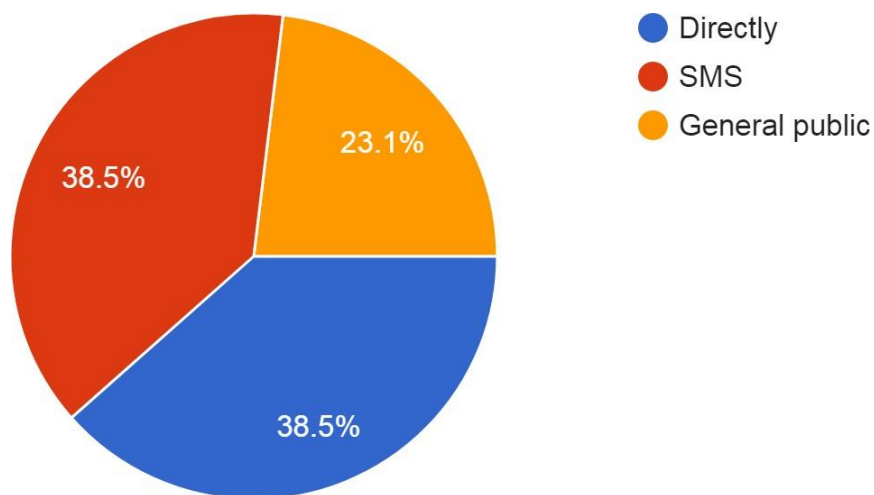
Particulars	No of respondents	Percentage
Directly	20	38.5
SMS	20	38.5
General public	12	23.1
TOTAL	52	100

Source: Primary data

Interpretation:

Table 3.18 shows that 38.5% of people get information about the availability of goods either directly from the shops or by SMS.

Figure 3.18 Sources of information on availability of goods



Source: Table 3.18

3.19 OPINION OF RESPONDENTS REGARDING QUALITY OF GOODS RECEIVED:

Table 3.19 Opinion on quality of goods received

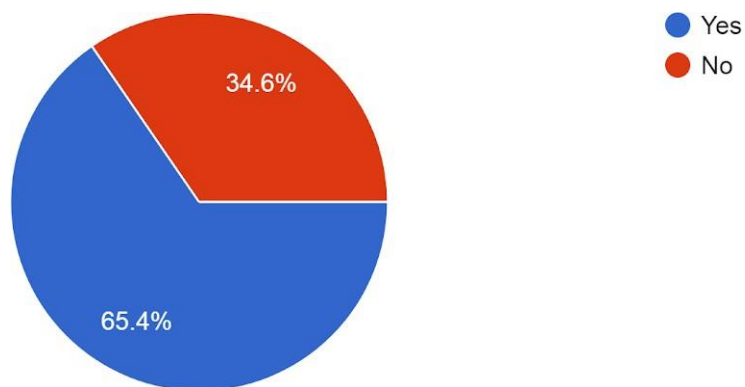
Particulars	No of respondents	Percentage
Yes	34	65.4
No	18	34.6
TOTAL	52	100

Source: Primary data

Interpretation:

Table 3.19 shows that over half of the people (65%) are satisfied with the quality of goods they get from ration shops.

Figure 3.19 Opinion on quality of goods received

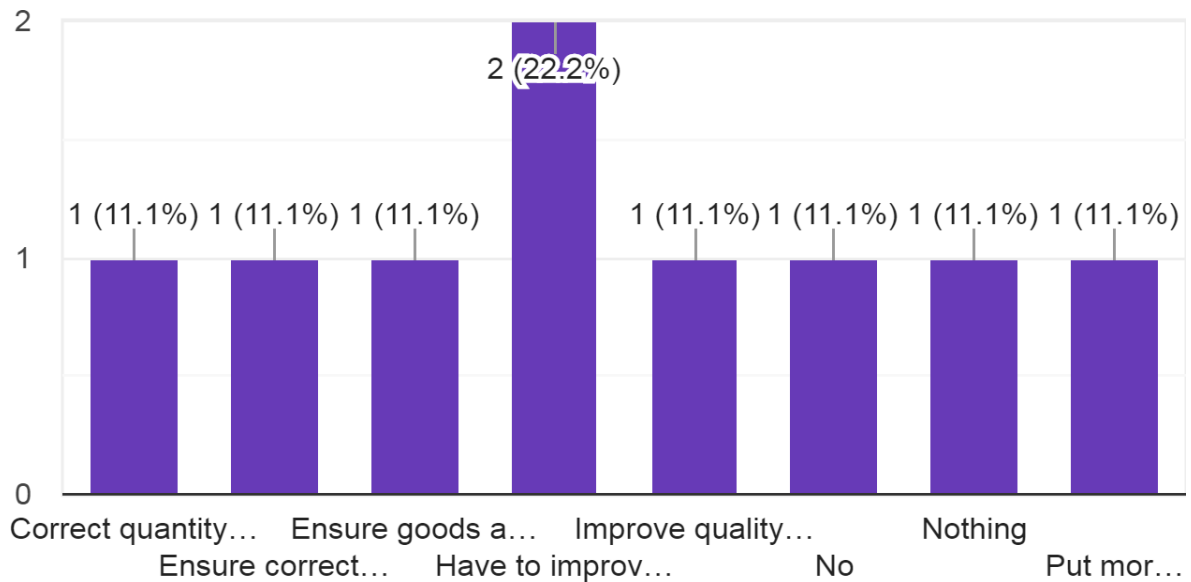


Source: Table 3.19

3.20 SUGGESTIONS OF RESPONDENTS TO IMPROVE PDS

WORKING:

Fig 3.20 showing suggestions to improve the working of PDS



Interpretation:

A few suggestions given by respondents are:-

- Correct quantity of goods
- Ensure correct weight
- Have to improve the working
- Ensure goods at right time
- Improve the quality of goods
- Put more funds to improve the working of PDS

CHAPTER- 4
FINDINGS, SUGGESTIONS AND
CONCLUSION

FINDINGS

Public Distribution System is a major food security system controlled by the government of Kerala. The system serves triple objectives namely protecting the poor, enhancing the nutritional status and generates a moderate influence on market prices.

It is intended to present a consolidated picture of the study through a connected review of all important findings, which are as follows:

- The study reveals that majority of the respondents are of the age group between 40 and 50 years of age.
- The study reveals that majority of the respondents are female since the ration cards are provided in the name of the elder female in the house.
- Most of the respondents are of the income group 'Rs 10000-Rs20000'.
- The majority of customers and dealers are APL Ration Card holders, ie, 40 percentage.
- Majority of the dealer's opinion is that the speeds of their work were decreased.
- 80 percent of the dealers were not satisfied in the working condition of the epos machine.
- The study reveals that the level of efficiency of work become low.
- 90 percent of the dealer's opinion was that the errors in keeping data's were reduced.
- The study reveals that the time spent by the customers in the ration shops were increased.
- Most of the customers i.e., 64 percent were using the benefit of purchasing from ration shops.
- 56 percentage of the customers have communicated the availability of the product through the general public.
- Majority of the customer's opinion about corruption and malpractices is that was reduced to a great extent.
- 52 percentage of the customers are not satisfied with the quantity of product provided in ration shops.
- Most of the customer's purchase products monthly.
- The study reveals that this system is more economical.
- Majority of the customers are satisfied with the quality.

SUGGESTIONS

On the basis of the above findings the following suggestions are made;

- ❖ The network connectivity should be made properly as to improve the time consumed and increase the speed of work.
- ❖ Increase the number of machines to reduce rush and waiting time.
- ❖ Do maintenance on the machine monthly so that the working condition can be improved.
- ❖ Enhance the customers to use the benefit of purchasing from any shops.
- ❖ Customers can make purchases on earlier days of the month and avoid everybody goes to the ration shops in the same days and time.

- ❖ Provide adequate guidance to improve the level of efficiency of work and improving transparency.

CONCLUSION

As a part of the evolution, the Public Distribution System (PDS) has changed to the new system of digitization. It allows the online entry, verification and storing of data, computerization etc. The system had made a wider change in the food system of our country.

Public distribution system in India has developed since many decades. In Indian scenario, there are numerous natural disasters occurring and it results in famines and droughts that cause acute scarcity conditions. Government of India took various measures to help the victims in which the food security system was initiated. Such effort was taken up for the first time in 1939 under the British regime when the Second World War started. The government thought of distributing the food grains to the poor of some selected cities in which there was scarcity and a situation where private, failed to provide commodities affordable by the poor. The basis of the analysis it can be concluded that this system is effective to the whole PDS system. There are also some technical issues like power supply, internet connectivity, working condition, etc which pull back the system. This drawback should be considered and rectified to ensure the full success of the digitization of the public distribution system. The government, dealers and the customers together are responsible for the betterment of the system.

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- https://www.academia.edu/378216/Public_Distribution_System_in_India
- <https://web.archive.org/web/20130418073521/http://pmindia.nic.in/cmp.pdf>
- <http://indiabudget.nic.in/es2000-01/chap53.pdf>
- http://planningcommission.nic.in/reports/wrkpapers/wp_pds.pdf

APPENDIX

1. Gender

- Male
- Female

2. Age

- Below 30
- 31-40
- 41-50
- Above 50

3. Monthly income

- Below 10000
- 10001-30000
- 30001-50000
- Above 50000

4. How often do you visit Ration shops?

- Weekly
- Monthly
- Based on availability of goods

5. Type of ration card held

1. Non-priority
2. APL
3. BPL
4. AAY

6. In your view, what are the main reasons for government taking his initiative to improve the working of ration shops?

- Inflation
- Poverty
- Lack of distributive justice
- Gap between rich and poor
- To generate downward pressure on open market price

7. What do you think are the objectives of government in establishing PDS?

- Supply of essential commodities at reasonable price
- To serve poor and vulnerable sections
- Social service
- Prevention of black marketing
- Equitable distribution
- Price stability

8. Has your waiting time spent in ration shops reduced?

- Reduced
- Not reduced

9. Are you satisfied with the system of digitalization adopted in ration shops?

- Yes
- No

10. Has the speed of working of ration shops changed with the new system?

- Increased
- Decreased
- No change

11. How is the working of Electronic Point of Sales (EPOS)?

- Good
- Satisfactory
- Poor

12. How would you compare the efficiency of work after the introduction of EPOS?

- High
- Average
- Low

13. Are document-handling errors reduced?

- Reduced
- Not reduced

14. Is the system economically efficient?

- Yes
- No

15. Do you agree that “corruption has been reduced”?

- Strongly agree
- Strongly disagree
- Agree to some extent
- Neutral

16. Do you get the exact quantity of goods?

- Yes
- No

17. Do you think that the services rendered by ration shops are adequate?

- Yes
- No

18. How do you get information about the availability of goods?

- Directly
- SMS
- General public

19. Do you get goods with enough quality?

Yes

No

20. What are your suggestions to improve the working of PDS?
