



INTERNATIONAL JOURNAL OF PURE AND APPLIED RESEARCH IN ENGINEERING AND TECHNOLOGY

A PATH FOR HORIZING YOUR INNOVATIVE WORK

A SURVEY OF E-GOVERNMENT AND PDS SYSTEM IN INDIA

MR. MOHIT K. POPAT, PROF. S. S. ASOLE*

1. ME Student, Department of Computer Sc. & Engg., Babasaheb Naik College of Engg., Pusad.
2. Associate Professor, Department of Computer Sc. & Engg., Babasaheb Naik College of Engg., Pusad.

Accepted Date: 15/02/2014 ; Published Date: 01/04/2014

Abstract: As we know India has an expanding population of more than one billion. So the requirement of food is directly proportional to the increasing population in India this paper describes the close linkages existing between food securities, Food distribution, Public Distribution system (PDS), E-Government. This paper reviews status of public distribution system and its relationship with the development of E-Government food distribution system in the various states initiatives of India. Along with this paper critically analyses the organizational structure and their loopholes in the functioning of agencies like FCI & CWC engaged in the procurements, transportation, storage and distribution. And suggests remedial measures to make the PDS transparent, efficient and effective without which the vision of food for all cannot be attained in India.

Keywords: PDS System, E-Government, FCI, CWC

Corresponding Author: Mr. MOHIT K. POPAT



PAPER-QR CODE

Access Online On:

www.ijpret.com

How to Cite This Article:

Mohit Popat, IJPRET, 2014; Volume 2 (8): 259-269

INTRODUCTION

A. What is Government?

Government is defined as administrative organisation with authority to govern [1]. Govern means steer or control and Governance means power of steering social system, controlling government systems and processes related with it

i) Problems in conventional government system

Some types of problems in conventional government system are given below.

1. No Transparency in work of government system, it encourages to malpractices or make corruptions in system [3].
2. No Accountability- Lack of responsibility in government servants about their work. Government system is not able to trace progress or performance in their work at apex level.
3. Unresponsiveness in service delivery from government to citizens- Government agencies or organizations take more time to provide services with quality of services to citizens or to businesses. Because still more departmental work is being done by manually today also.
4. Political intervention or pressure on work of organization of government leads to decrease the growth or performance of organization.
5. Complexity in rules and processes of getting services it creates complex environment for citizens or businesses for applying to get that service. So it encourages people involved in that processes to make corruptions in system.

B. What is e-Government?

e-Government means process of transformation of relationship between different government organizations, processes of government organizations through the use of Information and Communication Technology (ICT), to bring Transparency, Efficiency, Ac-accountability in process and responsiveness in getting services to citizens.[2] In short e-Governance is application of ICT to bring Accountability, Efficiency and Transparency in processes or operations of government and provide different types of services to citizens at affordable cost. Here Transformation means change the form i.e. moves from old form to new form. Aim of Transformation is exploit the power of technologies in redefining government processes in innovative manner i.e. bring innovative change to old process from the point of view Effectiveness, Responsiveness. (i.e. Process Reform is done by Transformation) Lets take example of service of providing loan information to its customer in banking sector. In Conventional process, customer needs to visit bank, check his eligibility for loan, ask

information to Loan officer and get information. It is very time consuming process and no guaranty about customer satisfaction after getting information from bank. But after Transformation by using ICT tools, this service is provided online on bank website. So customer dont need to visit bank, he can browse banks website anywhere anytime get and get loan information by checking eligibility with the help of automated tools and customer will get beneficial plan for Loan application easily. This is not time consuming process as compared to previous.

C. What is PDS?

PDS is a system whereby accessibility of vital supplies is assured within easy reach of the consumers in every corner and bend of the country. This is a transaction system where food grain, sugar, and other necessary items like kerosene oil and edible oil etc. are made available to the people of the state at reasonable price to meet their minimum needs. Regular and timely availability of supplies is assured through close monitoring system to make PDS an effective instrument against various forces in the open market and to keep under check the inflator tendencies. Certain supply on fixed and reasonable prices also keeps in control the changeable trends of market due to vagaries of whether and subsequent changing prospects of crops. PDS serves as a steady stable check on market forces and work as an effective stabilizing factor. PDS also serves as an effective tool of social welfare and directly contributes to the development of rural population at large and the poorest of the poor in particular who can not afford to buy necessary and essential items from open market. PDS also serves as an instrument of rural development especially in far-flung and inaccessible areas.

D. Concepts of PDS

PDS can be distinguished from private distribution in terms of control exercised by public authority and the motive predominantly being social welfare in contrast to private gain. Broadly, the system includes all the agencies that are involved from procurement stage to the final delivery of goods to the consumer. The agency that is involved in the process of procurement, transportation, storage and distribution are Food Corporation of India (FCI). At the state level it is the civil supply Departments /corporations and fair price shops, which are the agencies, involved in provision of PDS. The fair price shops (EPS) are the last link in this process, which are mostly owned by private individuals. Hence, the most important aspect that distinguishes PDS is the involvement of government agencies and government control over the entire

Distribution system in its narrow connotation, PDS is identified with fair price shops. According to Dholakia and Khurana, PDS is "a retailing system supervised and guided by the State".

Progress Evaluation Organisation (Government of India 1985) defined PDS as a "set up under which specified commodities of everyday use are procured and made available to consumers through a network of FPS in urban as well as in rural areas". Procurement of cereals is undertaken by FC1 on behalf of central government. Some state government agencies also procure grain for the central pool as well as for their own account. Allocation to definite states is made by the central government. The State level civil supply organisations undertake the responsibility of allotment to FPS and supervising the functioning of FPS. FPS is subject to government control. FPS's are not allowed to sell other than government supplied essential commodities. Specified quantities are allotted to each FPS depending upon the number of ration cards attached to the FPS. The prices of these commodities are fixed by the government. The FPS dealer has to procure a license to operate a shop and required to maintain proper records, accounting to the stocks lifted by the dealer.

E. Features of the PDS

Thus what started as a programme of food supplies to the famine and drought victims in 1939, PDS has increased its scope of work to include a larger gamut of operations for procurement, and distribution of food grains and other civil supplies, pricing policies and so on. The essential features of the PDS can be summarised as follows:15

- 1) It is a system of distribution of selected essential goods through the fair price shops (commonly known as ration shops' or co-operatives (owned by the government) which are operated by private dealers under the government's control and direction.
- 2) Rice, wheat and sugar have continued to occupy a predominant position throughout the period. The other important items are kerosene, edible oil etc.,
- 3) The working of the PDS did not in any way hinder the functioning of the free market mechanism except in the limited statutory rationing areas but works along

II. Review of Literature

Numbers of studies have been done on e-government and PDS in India. The past studies were required to understanding the research problem and in carrying out the formulated work. Hence various research studies related to the E-government and Public distribution system are as following:

Mr. Singh [5] observed in his study "Public Distribution Sys-tem" that the Public Distribution System in India has become a regular and essential feature of food management. Theso-cial objective can be achieved only if the Central and State Governments assumes the responsibility

for assuring availability of essential commodities and articles of mass consumption to common man at reasonable prices.

Mr. Jaijit Bhattacharya [7] attempts to introduce the concept of middleware and technology standards as a tool to develop integrable, scalable and robust e-governance solutions, while employing multiple solution providers. Governments all over the world are trying to utilize IT for various purposes. The initial motivation usually comes from the need to improve efficiency of processes in the government. This may be concurred or followed by the second step comprising re-engineering of the processes. Another set of motivation may come from the need to provide various social services to citizens for improving the quality of life of the citizens. A third set of motivation may be to strengthen the democratic foundations of governance (opinion polls, voting etc.). These social services and democratic enablement's correspond to the new activities that become economically viable due to the altered cost structure due to use of information technology. Such complex requirements of electronic governance (Bansal and Bhattacharya 2000) pose two big challenges to the field of computer science. The first challenge is of managing the development of the solutions on a continual basis and then managing the large number of applications that need to interact with each other while maintaining security and privacy of the data. This needs to be accomplished in such a manner that change requirement in a single application should not trigger changes in other applications. Also, these applications may need to be developed in a massively parallel way unlike conventional development processes.

Dr. A. Padmapriya [6] discuss about the paperless administration in India. Governments form the backbone of a country. Public welfare is the key agenda of any government. It has to ensure that the benefits reach the needy. However much this sounds simple, it surely isn't. The state needs to run its affairs in a transparent and efficient way to reach and be reachable to its citizens. E-governance has the ability to lend the required efficiency and transparency. India, the world's largest democracy and one of the fastest growing economies of the world has recently embarked on the e-governance journey. India faces several challenges with ever-growing multilingual population, unique socio-political setup, infrastructure inadequacy and low literary that might put e-governance off the track. But accepting the challenge to prove the world wrong, Indian government has launched an ambitious e-governance initiative. This paper focuses on the initiatives taken by India, ways to build and deliver electronic government services, ways to develop and ensure interdepartmental collaboration and service delivery and critical factors required for successful implementation of e-governance.

III. Computerisation Initiatives

Current status of Computerisation in States

The computerization in PDS in States is at varying degrees of evolution. While a few states have extensively used IT to reform the PDS delivery mechanism to make it more transparent and effective, many states have not undertaken significant interventions in using technology to reform their PDS. The effort of the Task Force is to understand the best practices undertaken by the States in order to utilize the min framing a national strategy of IT for PDS.

Detailed presentations were made to the Task Force by many states that have undertaken computerization in PDS. While many states are on the path of computerization, a representative Summary of the efforts undertaken by some States is detailed below:

Andhra Pradesh

The State has taken initiatives for computerization of the ration card household data. A household survey was carried out for a large number of parameters of which ration card details were a subset. For this Ration Card Designated Photography Location (DPL) centers were setup to collect/ verify the declaration forms and to enter beneficiary data in the computer. Iris scanning for each member of the family was also done. The Ration card household application is a client-server based application. The data at present is not centralized and hence beneficiary verification across districts is not taking place. Bar-coded coupons were also introduced in the State. The coupons were given after manual verification of the beneficiary's details. This was a difficult process and hence personalized bar-coded coupons were introduced as a pilot for kerosene and rice. These coupons were delivered at the doorstep of the card holder. However no mechanism has been set up for scanning of these coupons for verifying the actual distribution. Aadhaar enrolment is currently in progress in seven districts. The State Civil Supplies Department is implementing a smart-card based Point of Sales (PoS) solution in all FPSs covering the entire State in a phased manner. As part of a pilot in Maheswaram Mandal of Rangareddy District, Smart Cards have been issued to the beneficiaries covering all the 36 FPSs and these FPSs are also equipped with PoS terminals for the purpose of authenticating/verifying beneficiaries before commodity distribution. A grievance redressal module was developed and put in place to log calls from beneficiaries. A pilot has been initiated in Krishna and Nellore districts for monitoring the transportation of essential commodities by using GPS from the MLS point to the FPS. After the pilot is completed, the same will be extended to other districts.

Chhattisgarh

Efforts of Chhattisgarh for PDS computerisation are relatively more mature than other States/UTs. Chhattisgarh has created a unified ration card database and bar-coded ration cards are issued. The maintenance of the ration cards database in the State is done through a web based application module. Similarly, web based application is used for automated allotment to FPSs and 108 warehouses of 120 distribution centers are computerised where PDS stocks and sales figures of the previous month of all the FPSs are entered into the computerised system for generating stock position at any point. Various reports like ration card holder details, FPS details, FPS wise allotment and lifting details, rice procurement details and complaints lodged and their status are generated by computer system on web, which are accessible to the public as well. Similarly, whenever PDS commodities are dispatched to a FPS from the warehouse, an e-mail / SMS is sent to all the e-mail IDs /mobile numbers registered for that FPS. A call-centre with a toll free number is in place since 2008 to get necessary information about the Department of Food and lodging of complaints. Complaints are monitored at all levels through the system. This web-based software also provides a method of beneficiary participation in monitoring of PDS where they can register their mobile number or e-mail address and can participate in the monitoring of PDS. A Centralised Online Real time Electronic PDS (COREPDS) scheme is being considered by State Government to be launched in 175 FPSs in Raipur city which would allow a beneficiary to obtain ration from any of these FPSs.

Delhi

In NCT of Delhi, a database containing a total of 13, 67,154 ration cards have been cleansed and migrated to the NIC system. Allocation and ration card management application modules have been customized for the Delhi Government by NIC. The Ration Card survey data has been digitized and laminated cards have been issued.

Gujarat

In Gujarat, a comprehensive application form has been prescribed for issuance of bar coded Ration Cards in lieu of existing ones. Initially, photograph and biometric details of at least one family member of the card holder are being captured at the time of issuance of bar-coded Ration Cards. The State Food and Civil Supplies Corporation supplies grain to the FPSs through 192 distribution centers. Ration Card computerization has been done across the State. Bar Coded ration card and biometric based bar-coded coupon system is being introduced. Bar-coded Ration Cards are presented to eGram (kiosk operator in rural area working under the e Governance program), who in turn issue printed coupon to the beneficiary subject to online verification based on biometric data. The type and the quantity of the commodities are entered

in the coupons as per the choice of the beneficiary. Over 89, 000 bar coded Ration Cards have been issued in 25 districts. This software has been developed and implemented by the State NIC unit. Issuance of more than 1 crore bar-coded Ration Cards in all 16,000 FPS is to be completed by March 2012.

Research Methodology and findings

Public distribution system (PDS) is one of the instruments for ensuring household level food security. Here we will confine the discussion to access of households to PDS and discuss the issues and reforms required in PDS in this section. National Sample Survey Organization (NSSO) has been collecting information on purchases of rice, wheat, sugar, and kerosene from fair price shops. These data have been analysed to examine utilization of PDS Share of PDS purchases in Consumption. The report has stated that the percentage of households consuming PDS rice has risen in rural India from 24.4% in 2004-05 to 39% in 2009-10, while households in urban India consuming PDS rice has risen from 13% in 2004-05 to 20.5% in 2009-10. Consumption of PDS wheat by households in rural India has risen from 11% to 27.6% between the two surveys, and in rural India the corresponding rise has been from 5.8% to 17.6% between the two surveys.

PDS Allocation and off take

The Government has used the below poverty line (BPL) and above poverty line (APL) as the cut-off points for providing subsidized PDS food grains. Considering an average family of 5 persons, families earning approximately Rs. 1,500 per month in the rural areas and Rs. 2,000 in the urban areas fall below the poverty line. Weak commitment to PDS was noticed in poor states, namely Bihar, Orissa, Uttar Pradesh and Madhya Pradesh as well as in rich states like Punjab and Haryana.

i) Procurement: The procurement of rice as on December, 2011-12 is 113.72 lakh tones and on 2012-13 is 349.24 lakh tones. In respect of wheat, the procurement 2011-12 is 283.3 lakh tonnes and on 2012-13 is 381.48 lakh tonnes.

ii) Stock: The total stocks of rice and wheat held by FCI and State agencies as on December, 2011-12 was 695.29 lakh tones comprising 289.54 lakh tonnes of rice and 405.75 lakh tones of wheat.

iii) Offtake: The offtake of rice in all schemes during the month of November, 2011 has been 25.84 lakh tones and during 2012 have been 28.20 lakh tones. This comprises 19.85 lakh tones under TPDS and 8.40 lakh tones under other schemes during November, 2012. In respect of wheat, the total offtake has been 30.70 lakh tones comprising of 14.95 lakh tones under TPDS and 16.96 lakh tones under other schemes.

iv) Allotment and Offtake under BPL, APL and AAY: The Total allotment of rice during sep, 2012 under TPDS including BPL, APL & AAY was 22.10 lakh tones against which the total offtake was 19.80 lakh tones representing an overall percentage offtake of 89.6%. The BPL allotment of rice was 9.68 lakh tones representing percentage off take of 95.8%. In respect of AAY the allotment was 5.75 lakh tones, which represents 94.4% offtake. The total allotment of wheat under TPDS including BPL, APL and AAY during November, 2012 was 19.55 lakh tones against which the total offtake was 13.78 lakh tones representing an overall percentage offtake of 70.55. The BPL allotment of wheat was 4.85 lakh tones representing an offtake of 83.6% . In respect of AAY the allotment was 2.79 lakh tones which represent 97.5% offtake.

Problems: There are basically four problems in the present TPDS: (i) high exclusion errors; (ii) non-viability of fair price shops; (iii) not fulfilling the price stabilization objective; and (iv) leakages. The leakages vary enormously between states. In Punjab and Bihar, the total leakage exceeds 75 per cent while in Haryana and Uttar Pradesh it is between 50 and 75 per cent. Some other problems are: low quality of foodgrains, infrequent supply of foodgrains, inefficiency of Food Corporation of India(FCI), corruption, political interference, no system of inspection of entitlements and viability of Fair Price Shops (low margins) etc.

Suggestions: There is need for certain reforms in procurement and distribution for better functioning of TPDS. These are: (i) decentralization of procurement and distribution; (ii) involving panchay-ats (elected village representatives) in PDS; (iii) streamlining FCI and involvement of private sector farmers' cooperatives, SHGs, etc. in procurement and distribution; (iv) viability of FPSs, giving them higher margin, making monitoring compulsory; (v) punishment system for the defaulters.

IV. Conclusion

To sum up, technical and policy reforms should be sure. Banking and Information technologies have superior rapidly and should permit governments to bring transparency, accountability, responsiveness and pace in all applications without extra expenses. In addition, computerization can help in modernizing the PDS. A number of states are already innovating in PDS execution, and improved performance can be seen in some cases. Although the introduction of modern tools such as smart cards may not be a panacea for all the evils, it can solve many of the problems particularly that of pilferage and spurious beneficiaries. They are like low hanging fruits which can be picked up easily.

Acknowledgement

The authors proactive guide **Prof. S. S. Asole** Assistant Professor of Computer Science & Engineering department because without his valuable guidance this paper could not have been completed.

REFERENCES

1. "Oxford English Dictionary". Oxford University Press. November 2010.
2. J. Satyanarayana E-government: the science of the possible Edition-reprint, Publisher-PHI Learning Pvt. Ltd., 2004
3. Rumi Aijaz Challenges for Urban Local Governments in India Asia Research Centre Working Paper19 in 2006
4. Report on Reforms in Examinations System in Universities of maharashtra through use of Technology 2012
5. Pathania, Kulwant Singh. (2005). Public Distribution System, Status, Challenges and Remedial strategies, New Delhi: Kanishka Publishers. | U.K.Singh (1991),
6. Dr. A. Padmapriya, E -Governance : "A move towards paperless Administration in India. "in International Journal of Computer Trends and Technology- volume4Issue3- 2013
7. Jaijit Bhattachary, "Middleware and technology standards for E-Governance"
8. Prof. [Aijazuddin Ahmad](#) and Prof. [Anjani K. Singh](#)] "[Public food distribution systems in Indian cities](#)"
9. Dre` ze, J. and Khera, R. (2005) Diversion of grain from the PDS, unpublished calculations, Mimeo, Centre\for Development Economics, Delhi School of Economics.
10. (2005a): "Programme Evaluation of Targeted Public Distribution System" (New Delhi: Planning Commission)
11. (2007): "Public Distribution System and Othe Sources of Household Consumption, 2004-05", Volume 1, Report No 510, NSS 61st round (July 2004 to June 2005), National Sample Survey Organisation(New Delhi: Ministry of Statistics and Programme Implementation).
12. (2011): "India's Public Distribution System: Utilisation and Impact", *Journal of Development Studies*, Vol 47, No 3, pp 1-23.
13. (2011a): "Diversion of PDS Grain", CDE Working Paper No 198.

14. Ms. Gurdeep kaur Ghumaan Research scholar, Dept. of Management & Humanities, Sant Longowal Institute of Engineering & Technology, Longowal.

Link Refer:

- 1 <http://mahafood.gov.in/website/english/PDS10.aspx>
- 2 <http://dfpd.nic.in/?q=node/101>
- 3 <http://www.food-chain.com.au/>
- 4 <http://www.incose.org/>
- 5 <http://www.indiainfoline.com/Markets/News/Addressing-overnutrition-in-India-Sustainable-solutions-lie-outside-health-sector/5229705866>
- 6 <http://maharashtra.nic.in/Projects.aspx>
- 7 <http://en.wikipedia.org/wiki/Governance>
- 8 <http://en.wikipedia.org/wiki/M-government>