

Security Measures in Public Distribution Systems: The Consumers' Perception

Dr. Deepak Shivaji Dandwate

Associate Professor

Maratha Vidya Prasarak Samaj Institute of Management Research and Technology
Nasik, Maharashtra

Abstract:

Numerous facets of our everyday life are still being altered by the digital revolution. Specifically, the power of the business channel has been vertically integrated as a result of digital transformation. Additionally, the digital revolution is still changing public sector services and organizations. The shift to reputable public distribution systems using ICT is the next stage of the digital conversion process. One emerging technology that has grown significantly in the last year is digital or cashless transactions. Nowadays, income payments are a common practice in practically every industry. The following elements are considered in relation to the idea of "Effect of Security Measures on Use of Public Distribution Systems": two-stage verification, fingerprint password systems, OTP-based transactions, periodic password changes, early detection of unauthorized transactions, etc. ICT-enabled public distribution systems are the greatest way to solve any problem without spending money. To enhance your present distribution systems, it is preferable to employ public distribution systems. ICT-enabled public distribution systems have been shown to be the most effective means of distribution.

Keywords: Security Measures, Public Distribution Systems, Information Communication Technology (ICT).

INTRODUCTION

Electronic devices have become an essential component of daily life due to technological advancements. Electronic devices are utilized for social media, entertainment, communication, the internet, and money. Wallets that support mobile technology have made it possible for smartphone owners to conduct a variety of financial activities. Name, kind, and other keywords are examples of identification tools that enhance the security of all data in public distribution systems. This data is encrypted, and the backup option allows for the recovery of lost data. The Ministry of Consumer Affairs, Food, and Public Distribution of the Government of India established the Public Distribution System (PDS) as a food security system to provide food and non-food items to the underprivileged at reduced prices. Through a network of fair price stores, often called ration shops, set up in several states throughout the nation, major commodities are given, including staple food grains like wheat, rice, and sugar as well as necessary fuels like kerosene. The PDS is purchased and maintained by the government-owned Food Corporation of India. Apart from China, India has the world's greatest grain stock as of June 2022, and the government spends ₹750 billion on it. The Public Distribution System (PDS) in India receives food from the net food surplus states, primarily the smaller but wealthier states of Haryana and Punjab, which supply 70–90% of the wheat and 28–44% of the rice. This food is then redistributed to other net negative producer states that produce less than they consume. State governments oversee the distribution of food grains to the nation's impoverished. There were 505,879 fair pricing stores (FPS) in India as of 2011. A household above the poverty line is entitled to 15 kg of foodgrain each month, redeemable with a card, whereas every family below the poverty line is

eligible for 35 kg of rice or wheat per month under the PDS program. The effectiveness of the distribution mechanism is questioned, though. It is regarded as the most significant food security network in terms of reach and public spending. Nonetheless, the ration shops' supply of food grains is sufficient to meet the impoverished people's consumption needs. The PDS faced criticism in the 1980s and 1990s for its urban bias and ineffectiveness in helping the less fortunate segments of society. Prior to the early 2000s, there was a lot of corruption (i.e., people did not receive all of what they were entitled to) and the Targeted PDS is costly

REVIEW OF LITERATURE

Biometric Enabled Ration Card Security System for Public Distribution System by Laxman Kumarwad in International Advanced Research Journal in Science, Engineering and Technology; Vol. 4, Special Issue 4, January 2017; ISSN (Online) 2393-8021: The improvised method of implementing a smart ration card is suggested in this study. Ration cards are currently highly helpful to every household for a number of reasons, including obtaining family member information, obtaining subsidized food and non-food products, connecting to gas, and providing proof of address for various purposes. Everyone has a ration card that allows them to purchase various food goods from fair price stores, including sugar, rice, and wheat, as well as non-food items like kerosene and edible oils. However, there are a number of issues with our public distribution system, such as the fact that all client information is manually entered into the registers. This could lead to theft. Using electronic ration cards might lessen misuse and frauds because middlemen can copy the cards due to security concerns. In order to increase transparency in the public distribution system, this essay suggested a biometric fingerprint system that would include security features in ration cards. Utilizing biometric-enabled smart cards for beneficiary identification and a system that links UID with the PDS are two ways to address the problems. To create the system, a Public Private Partnership (PPP) is required. The government must also have private agencies verify the system's efficacy and efficiency.

Jadhav, Rahul. (2013). Public Distribution System of Essential Commodities as a Social Security(A Study of Satara District Maharashtra). 3. 10: This article looks at how public distribution affects social security and the fight against poverty in India. The Public Distribution System (PDS) has a poor record of reaching the poor and disadvantaged, according to our research. In order to provide the broader public in both rural and urban areas with access to requirements at lower costs, the program was subsequently renamed the Targeted Population Distribution System (TPDS). Nonetheless, PDS is regularly criticized for its ineffectiveness and inefficiency in achieving its objectives. Because of this, the current article talks about the goals of the PDS, its growth in India, and how fair pricing outlets operate in Satara district. Low-quality products, weight loss, PDS articles leaking to the open market, and commodity shortages are some of the PDS dangers identified in the current study. The research also offers suggestions for enhancing the present PDS system

OBJECTIVES OF THE STUDY:

1. To study the Usage status of Public Distribution Systems
2. To study Effect of Security Measures on Usage of Public Distribution Systems

HYPOTHESES OF THE STUDY:

H₀- There is no significant effect of security measures on usage of Public Distribution Systems

H₁- There is significant effect of security measures on usage of Public Distribution Systems

RESEARCH METHODOLOGY OF THE STUDY:

As far as perception for Effect of Security Measures on Usage of Public Distribution Systems is concerned, following factors are taken into consideration viz, OTP based transactions, two stage authentication, Periodically changing password systems, fingerprint enabled password systems, quick settlement of unauthorised transaction complaints etc

The methods used are

1. Observation: Naturalistic method of observation to enable the study of the participants in their environment.
2. Survey Method: In this method the participants answer questions administered through interviews and questionnaire.
3. The secondary data was collected from various articles, research papers from websites and journals and books.

RESEARCH AREA

Researchers selected customers using Public Distribution Systems from _____. Sample sizes of 100 person have been taken under study. Researcher collects data through Primary and Secondary sources. Researcher distributed 100 questionnaires among the respondents

DATA ANALYSIS

In research study theoretical framework has several variables of interest and one has to come to sample size by considering all the factors of the study. Researcher prepared the questionnaire for respondents and distributed it among them. After receiving the questionnaire researcher analyse the questionnaire.

Table No 1: Information of questionnaire

Sr. No	Questionnaire distributed	Questionnaire received	Questionnaire rejected (due to incomplete, wrongly filled etc)	Net Sample size for study
1	100	95	3	92

Testing of Hypothesis

H₀: There is no significant effect of security measures on usage of Public Distribution Systems

H₁: There is significant effect of security measures on usage of Public Distribution Systems

Mathematically

OBSERVED FREQUENCIES		Security Measures					
		OTP based transactions	Two stage authentication	Periodically changing password systems	Fingerprint enabled password systems	Quick settlement of unauthorised transaction complaints	TOTAL
Usage of PDS	Every Time	5	1	1	2	5	14
	Sometime	3	3	5	9	17	37

Uncertain	4	2	3	3	1	13
Often	2	3	4	1	2	12
Never	3	7	3	1	2	16
TOTAL	17	16	16	16	27	92

Sr No	H ₀	H ₁	χ_{cal}	χ_{table}	p_value	Decision
1	There is no significant effect of security measures on usage of Public Distribution Systems	There is significant effect of security measures on usage of Public Distribution Systems	29.17	26.30	2.14E-01	Reject H ₀ (i.e. There is significant effect of security measures on usage of Public Distribution Systems)

****Here level of significance is 0.05**

Thus, our null hypothesis There is no significant effect of security measures on usage of Public Distribution Systems is rejected. Alternatively, we accept our alternative hypothesis There is significant effect of security measures on usage of Public Distribution Systems

FINDINGS

1. The most vital factor among the respondents' perception is that, **'Fingerprint enabled password systems'**
2. The more important issue is come out from this analysis in which there is interesting results found is; the respondents are little bit confused about the point **'Quick settlement of unauthorised transaction complaints'** as they are not fully convinced about the issue even though there is good implementation of proper security measures

CONCLUSION

Food is a fundamental social and economic right, according to the Indian Constitution. Food instability and chronic hunger are widespread, which indicates a clear violation of human rights. For the most impacted populations during this period, the Indian government launched the Atmanirbhar Bharat Abhiyan in response to the loss of livelihood brought on by the pandemic-induced lockdowns. Relief for holders of ration cards was first announced through the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), which provided Priority HouseHolds (PHH) with a free supplementary supply of food grains, and the Pradhan Mantri Ujjwala Yojana, which provided free gas cylinders to women. The free ration provision was expanded to include non-ration card holders with valid Aadhaar cards in light of the migrant problem. The government of Maharashtra also enacted a Government Resolution (GR) at the start of the lockdown to give Above Poverty Line (APL) saffron card holders in the state subsidized rations for the months of May and June. The urban poor already had trouble getting their Public Distribution System (PDS) food-related benefits before the outbreak. Among these were: a) Requirements for eligibility to get a ration card, which frequently led to exclusion b) Difficulties and delays in the issuance of ration cards; c) Lack of knowledge about entitlements and access barriers among ration card holders; d) One Nation One Ration (ONOR) implementation delays and entitlements related to the place of origin, which prevent migrant workers with valid ration cards from accessing the PDS in the destination state. In light of the current crisis, when a significant portion of the urban poor still lack a source of income to purchase food, the PDS has become an

essential safety net that can help ease their ongoing suffering. This policy brief identifies the main obstacles preventing the urban poor from accessing food-related benefits and offers suggestions to guarantee the efficient and inclusive application of food security measures

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