Smart Ration Shop for Public Distributed System

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Abstract—*In this paper to implement smart ration shop improvised technique is proposed. The main objective of smart ration shop reasonable (subsidized) prices for food and other essentials to the weaker sections of society are provided and which is currently the main disadvantage of the target beneficiaries for the elimination of subsidies and the resulting inability to leak PDS (public distribution system) [2]. The objectives of the residents of India can be achieved by creating a unique database for this purpose would put together the best techniques and processes. Illegal and fraudulent claims and fraud in the distribution of the ration would help to avoid duplicate entries and without ghost cards will lead to a database.*

Keywords:—*Biometric, indulging, PDS, ration card.*

1. INTRODUCTION

Public Distribution System (PDS) is an Indian food security system. This organization is owned by the Government of India under Ministry of Consumer Affairs, Food, and Public Distribution and managed jointly with state governments in India. The main working of PDS is to distribute grocery items to India's poor who are valid ration card holders. State governments monitored the validity and the allocation of the ration cards. A ration card holder should be given 35 kg of food grain as per the norms of PDS. However, there are concerns about the efficiency of the distribution process. In order to make it efficient and improve the current system of PDS we are implementing **Smart Ration Shop**. Some states like Gujarat and Kerala had already implemented this, but it has a tedious process which is overcome here. Here we are going to use a card similar to the swipe card or the credit card used for our shopping purpose. Using this card the card holder can get his/her grocery items from the Fair Price Shop's (FPS). The main reason for using this swipe card and making this process computerized is to remove the drawbacks of the present way of issuing products based on ration card. The main drawback in the current system is that the PDS has been for its urban bias and its failure to serve the poorer sections of the population effectively **Smart Ration Shop** is web site which provide the fair quantity of items with fair prices. In this

software Biometric finger prints are being used for the identification of card holder and to avoid corruption in food items. All the details of quantity of items that they purchased by users are filled by users itself. **Smart Ration Shop** scheme is designed Public Distribution System (PDS) is an Indian food security system. This organization is owned by the Government of India under Ministry of Consumer Affairs, Food, and Public Distribution and managed jointly with state governments in India. The main working of PDS is to distribute grocery items to India's poor who are valid ration card holders. State governments monitored the validity and the allocation of the ration cards. A ration card holder should be given 35 kg of food grain as per the norms of PDS. However, there are concerns about the efficiency of the distribution process. In order to make it efficient and improve the current system of PDS we are implementing **Smart Ration Shop**. Some states like Gujarat and Kerala had already implemented this, but it has a tedious process which is overcome here. Here we are going to use a card similar to the swipe card or the credit card used for our shopping purpose. Using this card the card holder can get his/her grocery items from the Fair Price Shop's (FPS). The main reason for using this swipe card and making this process computerized is to remove the drawbacks of the present way of issuing products based on ration card. The main drawback in the current system is that the PDS has been for its urban bias and its failure to serve the poorer sections of the population effectively **Smart Ration Shop** is web site which provide the fair quantity of items with fair prices. In this software Biometric finger prints are being used for the identification of card holder and to avoid corruption in food items. All the details of quantity of items that they

purchased by users are filled by users itself. **Smart Ration Shop** scheme is designed exclusively to ensure that the right beneficiary avails the desired amount of food grains and other benefits through PDS[1]. The scope of the solution is to computerize the entire ration distribution system and introduce new technology in order to stop pilferage in the system, so that the subsidized item with right quantity reaches the needy.

Ration shops do not open every day. Nor do they keep regular hours. The main motive is to limit access to people and divert grain and other product to the open market. **Smart Ration shop** not only maintains the quantity of foods items provided to users but also the national food security bill passed by parliament of country[1].

A. Salient features of web site

- Children 6 month to 14 years of age are receive free hot meals or "take home ration" or not.[1]
- It also maintain the record of funds provided by central government in case of short supplies of food gains
- Timing this is a common practice adopted by most people that run ration shops. They charge people more than the mentioned rates, and they often under-weigh the commodities.[3]
- Restricted Overcharge and under supply.

B. Limitations of currently available services:

- Corruption in India's Public Distribution System covered 4,405 respondents over 20 states and found that the chain of ration shops provide supplies to only 10% of the country's population. However, the government claims it supplies goods to 16% of the people.
- High level of buffer stocks often leads to wastage of food grains and deterioration in quality [2].

- 50% of them paid bribe for obtaining a new and legitimate ration card.
- The study on corruption in India's Public Distribution System covered 4,405 respondents over 20 states and found that the chain of ration shops provide supplies to only 10% of the country's population. However, the government claims it supplies goods to 16% of the people.

C. Solution to these problems

- To introduce e-mail and SMS alert.
- Replacement of existing paper based record of ration.
- The user can also give their feedback.
- Users also get all information regarded with their rights.
- Timing this is a common practice adopted by most people that run ration shops. They charge people more than the mandated rates, and they often under-weigh the commodities.
- People are harassed and have not to make multiple visits.
- People can give their feedback in any language.
- People don't have to pay bribes for small things
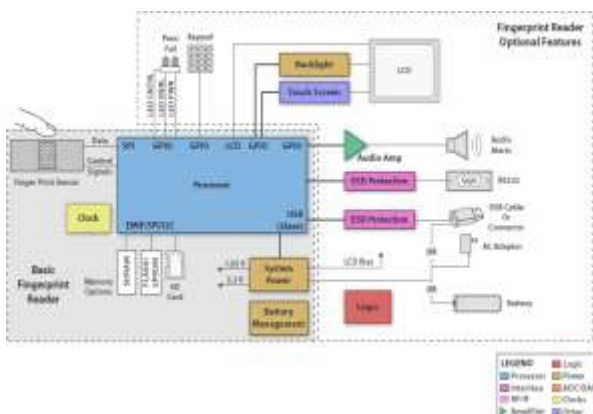
2. TECHNOLOGY USED

Figure 1: Biometric System

A. Fingerprint

At a high level, a fingerprint-based identification system works in the following manner:

Enrollment

Users are not required to carry any cards. On enrollment, a user places his or her finger on the scanner, which captures a fingerprint image. The image is sent to a PC ("client"). If the image quality is acceptable, fingerprint minutiae information is extracted, and the image is then discarded. The minutiae information is sent via a secure line to the biometric server, usually located in a secure room. This information is stored in a database on the biometric server. The system may enroll one or up to all ten fingers. Modern one-to-many systems are capable of searching as many as 20,000 templates, even more at times, in real time, within a few seconds.[2]

At this point we propose a Biometric Enabled Smart ration shop which will have the following features:

- Fitted with biometric sensors to identify the right person.
- Will have predefined list of dependents of the ration card holder.
- Will have prior information about the amount of ration to be disbursed.
- Will display the current rates.
- Will have automatic disbursing mechanism etc.
- Will monitor the 'stock taken IN' and the 'current stock' status.[6]

Pros

- Maintain record of free meals provided to pregnant women, lactating mothers are entitled to nutritious "take home ration" of 600 calories and a maternity benefit of at least Rs 6000 for six months.
- Children 6 month to 14 years of age are receive free hot meals or "take

home ration" or not.

- It also maintain the record of funds provided by central government in case of short supplies of food gains

Cons

- The users should have the proper knowledge of software.
- This software is used only by registered people.

3. FUTURE SCOPE

This paper is used by the government in ration shop. The new arrangement would cut down the delays in preparation and delivery to the beneficiaries to the people below poverty line.

4. CONCLUSIONS

A public distribution shop, also known as fair price shop (FPS). but the people not gets the fair food items with fair prices. The aim of over project is to provide item to users with right quantity. The computerized PDS is simple to implement and required much less hard work when compared to the other system. so implementing this will be really helpful to the people below poverty line.

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