

E-Ration Distribution System by Sending QR- Code

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Abstract: Public distribution system i.e. rationing distribution is one of the widely controversial issues that involves corruption and illegal smuggling of goods. All these happen because every job in the ration shop involves manual work and there are no specific high-tech technologies to automate the job. Because of intervention of manual work there are lots of illegal activity occurs like wrong entry in register of shop about the amount of products that given to the people, sometimes there is chance of distribution of low quality products than actual product provided by government for poor people, people do not have idea about how much quantity of good provided by government to them etc. In this project we propose the concept about to replace manual work in public distribution system (rationing distribution system) as E-government is increasingly used to improve transparency in the government sector and to combat against corruption.

Keywords: QR Code, Smart Ration Card, Short Message Service (SMS), customers.

1. Introduction

Observing citizen who have ration card but citizen don't get ration. And their ration taken by another people who take it by giving money. By this inappropriate system, we decide to develop a system in which each citizen will get ration, and if a person is not available to take ration then record will store and these record is given to government officers. If any complaint by citizen i.e. also kept as a record and seen by officers. And officers try to satisfy the citizen.

We get motivated by disadvantages of existing system. We propose the concept about to replace manual work in public distribution system (rationing distribution system) as E-government is increasingly used to improve transparency in the government sector and to combat against corruption. E-government is being implemented in more areas of government administration for both the local and national levels worldwide. E- Rationing system will reduce corruption in ration shops. In this project, online registration will done by user and user will fill his personal information and family information in system. Every time before ration collection, the authorized person needs to go through the verification phase. Once verification is done, quantity that he will collect also logged into the system.

2. Related work

In previous system, the work done was totally manual. There was no transparency in the system. The ration card holder was

unaware from the monthly ration allocated to that ration card holder. But this system is very time consuming. In this system there is lot of wastage of the paper. In this system there is lot of corruption to avoid this new system is proposed.

To replace manual work in public distribution system (rationing distribution system) as E-government is increasingly used to improve transparency in the government sector and to combat against corruption. E- Rationing system will reduce corruption in ration shops. To develop the Public Ration Distributed System by using authentication for avoiding the corruption and illegal uses. Improve the PDS.

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3. Proposed system

In proposed work is first of all we are going to make use of E-government technology that is being implemented in almost every area of government administration. Corruption and degradation of quality of goods would be using E-Rationing system. User would be registering online using personal credentials and information as registered. Also family information needs to be given as input while registering. Thus each time whenever the person gets notification about goods and services delivered, he needs to go through the verification process to prove he is the authorized person. Once verification is completed successfully, he can collect the quantity as logged into the system. Using QR code, it will be possible to uniquely build a module for each customer. As well as we are going to develop complaint portal where user can register the complaint against the Distributor if he is providing bad quality food.

A. Advantages of proposed system

- Transparency between government, consumer and distributors.
- Using QR code, consumers can view the quality and quantity of goods assigned to them.
- Consumers can register complain if found fraud by distributor.
- Gives more authority to consumer than distributor.

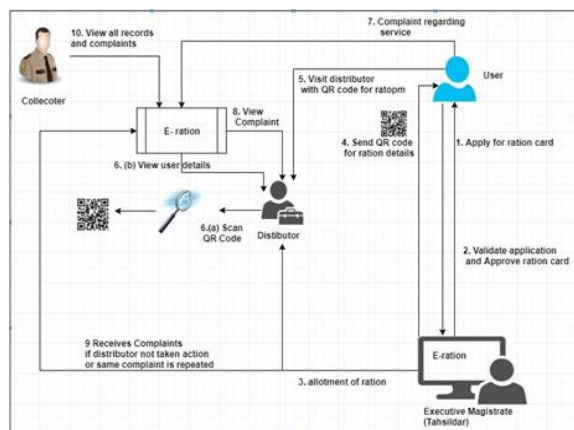


Fig. 1. System architecture

Collector have all rights to control the system. Collector allocate work to tahsil officer then tahsil officer have control on distributors. Citizens take their ration to their respective ration shop. If citizen have any issue to then citizen write his complain in complain box and which is read by collector and then collector work on complain. All the records by distributor is given back to tahsil officer and tahsil officer give report to collector.

4. Process

- Process: Step 1: User will register and login into our system.
- Step 2: Apply for Ration Card.
- Step 3: System will generate ration card as per his/her financial condition.
- Step 4: System will send monthly food distribution item with qty to particular User in the form of QR Code Code.
- Step 5: After this, distributor will scan QR code and verify all details if all details are correct then he will distribute the food.
- Step 6: If food quality is poor - user will register complaint against that particular distributor.

5. QR Code

This paper introduces the concept of QR images, an automatic method to embed QR Codes into color images with bounded probability of detection error. These embeddings are compatible with standard decoding applications can be applied to any color image with full area coverage. The QR information bits are encoded into the luminance values of the image, taking

advantage of the immunity of QR readers against local luminance disturbances. To mitigate the visual distortion of the QR image, the algorithm utilizes halftoning masks for the selection of modified pixels and nonlinear programming techniques to locally optimize luminance levels. A tractable model for the probability of error is developed and models of the human visual system are considered in the quality metric used to optimize the luminance levels of the QR image. To minimize the processing time, the optimization techniques proposed to consider the mechanics of a common binarization method and are designed to be amenable for parallel implementations. Experimental results show the graceful degradation of the decoding rate and the perceptual quality as a function the embedding parameters. A visual comparison between the proposed and existing methods is presented.

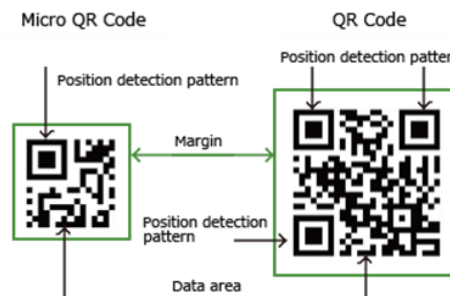


Fig. 2. QR code

6. Conclusion

In this paper, we have explained how the influence of distributor can be minimized and more power can be directly given to consumer. This project will provide safe and secure method for consumer and can directly access to the goods granted to them. Introduction to QR code technology makes this more transparent for government and distributor. Moreover, users can easily register complaints which are not possible in current scenario.

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