

## **Agriculture Product Checking Mobile Application for Farmers Using Android**

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**ABSTRACT:** Mobile devices these days have gradually become more powerful and distributive, influencing our daily lives on a larger scale. Android, which has proven to be one among the best mobile-based application development platform, provides the developers with many APIs and tools for the development of mobile applications. This application aims at providing a simple solution for providing product of farmers to the agricultural produce market committee (APMC). It is simple mobile point of sale for farmers. It is also helps them to market their product online. For farmers it offers better price discovery. They can search nearby Agricultural produce market committee from their locations.

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### **I. Introduction**

A user's social interaction on a digital platform such as is equally important in evaluating the user as social interaction is in real life. Generally the Farmers have to face a lot of problems in selling their product at APCM's. This all is done manually. Hence need to develop an application that can solve the mentioned problem. This application is come with just that solution.

Comparing to existing computerized system, it performs at a faster pace. It saves so much time. It is also helps them to market their product online. Accurate information is available. Chances of errors are much low. It provides the security to the system & software. Forms are very user friendly. Track nearby markets. Check quality of product. Notification pings up to farmers whenever there is product requirement update made by buyer. It gives instant alerts. It is an attempt to give independence an access to all farmers.

### **II. Related Work**

Applications aims at creating of knowledge base to be used by the farmers along with the dissemination of market information and market intelligence. It is proposed to create new alternative channels for marketing of agriculture produce like formation of Common Service Centers, Rural development, establishing e-trading platforms and linkage with spot exchange. Besides this with the help of additional knowledge, the farmer would sell his agricultural produce in the existing markets as well as in the proposed alternative markets. Therefore the existing markets viz. Agriculture Produce Market Committees (APMCs) are proposed to be modernized for this purpose. The objective of the project are to develop more competitive marketing systems, improve market access for farmers, increase private sector participation in agriculture and allied sectors, improve competitiveness of farmers by capacity building measures, establish and strengthen backward and forward linkages.

The project would be implemented with the participation of 3 line departments namely Farmer, APMC's and Agricultural Marketing and Besides these line departments, various autonomous bodies involved under the project are behavioral approaches that utilize the behavior of fake users For the component Modernizing of Wholesale Markets, the existing Wholesale Markets of the Agriculture Produce Market Committees (APMCs) are to be revamped by upgrading the basic and productive infrastructure. While the Modernizing of Wholesale Markets, for both B & C type APMCs. Agricultural marketing in India is quite complex due to large number of small scale producers and involvement of intermediaries like aggregators, commission agents and wholesalers as well as associated risks like perish ability, seasonality and availability of

produce. All these factors along with demand and supply gap are interwoven in the system, which ultimately impact the pricing of the produce, thus making the role of agricultural marketing more crucial.

The Application has greatly enhanced the way people where buy and purchase the certain activities (e.g. farmer good product), find information, and interacts with others. Today many people read/write reviews on after they purchase products or services. Examples include APMC’s reviews on Such user-generated content contains rich information about user experiences and opinions, which allow future potential farmers to make better decisions about spending their money, and also help merchants improve their products, services, and marketing.

The review network successfully captures the correlations of labels among users and products, e.g. fraudsters are mostly linked to good (bad) products with negative (positive) fake reviews, and vice versa for honest users. As such, the network edges are signed by sentiment. We build a compression methods that compress the network structure and the long-range correlations to infer the class labels of users, products, and reviews. A second step involves Analysis and summarization of results. For generality, we do not use review text information, but only the positive or negative sentiment of the reviews. As such, our method can be applied to any type of review data and is complementary to existing approaches. We summarize our main contributions as follows.

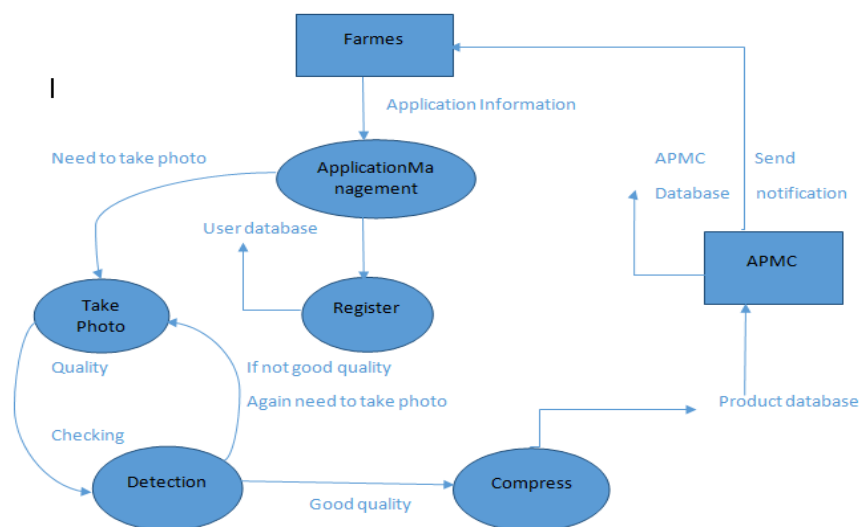
- We formulate the opinion of image detection problem as a network classification task on signed networks.
- We propose a novel framework that
  - (1) Employs a compression based method that exploits the network effect on image.
  - (2) Provides a summary and analysis of results

We evaluate our method compared to alternative methods on synthetic and real online app review data, where we successfully added as well as quality of product ratings. The rest of the paper is organized as follows: survey, proposed framework, competitors, evaluation, and conclusion.

### III. Our Contribution

Neural networks are widely used for image detecting applications such as size and color detection. They’re also used for providing market-led extension services to farmers. The popularity of neural networks is due to the fact that they converge on a varied set of problems, also the fact that they’re an imitation of how our brain learns new skills, retains that information for future use and applies it when necessary. Such qualities of a neural network certainly make it an alluring target when it comes to opinion spam detection, which is a crucial problem now days. Publicizing data on arrivals and rates of agricultural produce brought into the market area for sale and setup and promote public private partnership in the management of agricultural markets.

A detailed approach which explains the frequent item set mining used to detect fake review groups and all the input expenses for labor, materials and capital are rewarded at this stage, which shall include some incentive over and above inputs. Agricultural products, in a developing country remain in uniform demand throughout year, while production of most of them is concentrated in some part of the year. This results in fluctuation in prices which can change equations of profit for the farmer. Apart from this, in a federal and diverse country, every state or region has diverse resources, consumption patterns and rules regarding taxation, levies, sale etc., which makes numerous hurdles in interstate trade. Integration of all the regional markets into national market is desirable in interest of both farmers and consumers.



### Figure 3.1 System architecture

System architecture conveys the informational content of the elements comprising a system, the relationships among those elements, and the rules governing those relationships. The architectural components and set of relationships between these components that an architecture description may consist of hardware, software, documentation, facilities, manual procedures, or roles played by organizations or people. There are two users one is farmer and other one is APMC. Compression and Detection are the two important modules. Compression does reduction of size of image while sending to APMC. And Detection is used to checking the quality of farmer product as per the given parameter such as color.

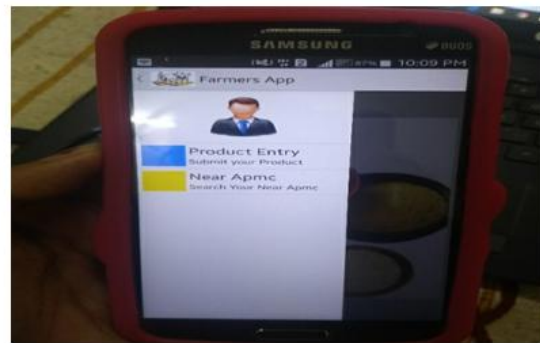
### IV. Data Collection

System analysis is the process of gathering and interpreting facts, diagnosing problems and using the facts to improve the system. System specifies what system should do. A system is a set of components that interact to accomplish some purpose such as identifying the drawback of the existing system, identify the need for conversion, to perform feasibility study. The data that has been collected from the application is not consistent in all cases; there are missing values for particular fields. Especially when a user has deactivated the account on Own application or the user has been removed from the applications for violating the code of conduct, the reviews written by such users still exist on the agricultural page and while computing we add null values to take care of such reviews.

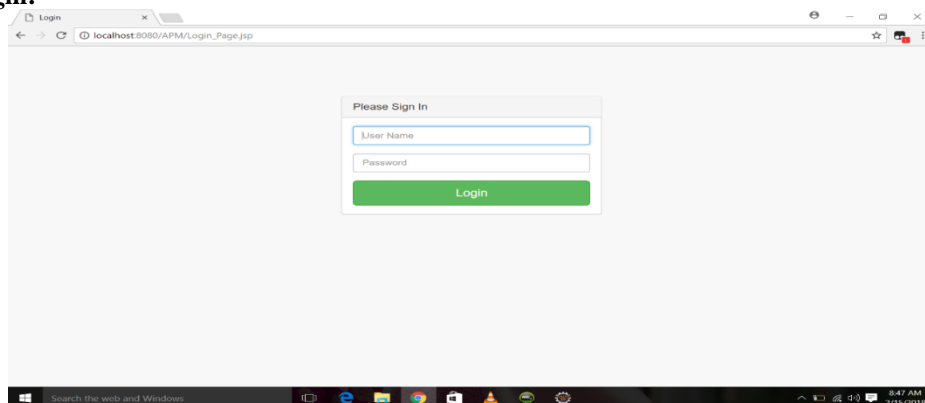
### V. Results And Discussion

For obtaining importance of every single feature that we consider in our experiment, we evaluated the entire feature set with a bag of decision trees and gathered the error in prediction with respect to the overall performance of the classifier. From the results we obtain the following order for feature importance: Track nearby markets > Check quality of product > Notification pings up to farmers whenever there is product requirement update made by buyer >It gives instant alerts. >It is an attempt to give independence an access to all farmers.

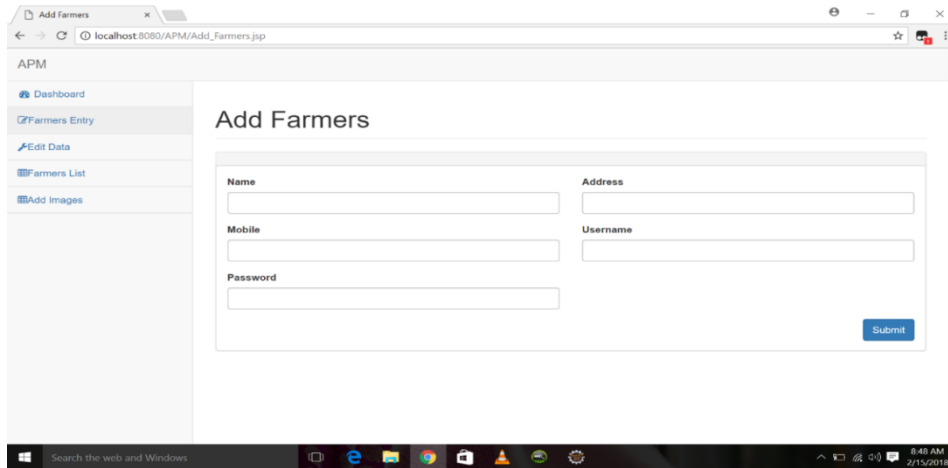
Home Farmer App: This is homepage of Farmer app. This page include product entry and near apmc modules. In product entry module we just give name to specific product and take photo of that product and send it to apmc. In background application will check the quality of product. Actual product is taken here and on click event of send button it automatically detects the quality and send to apmc by doing compression.



### APMC Login:

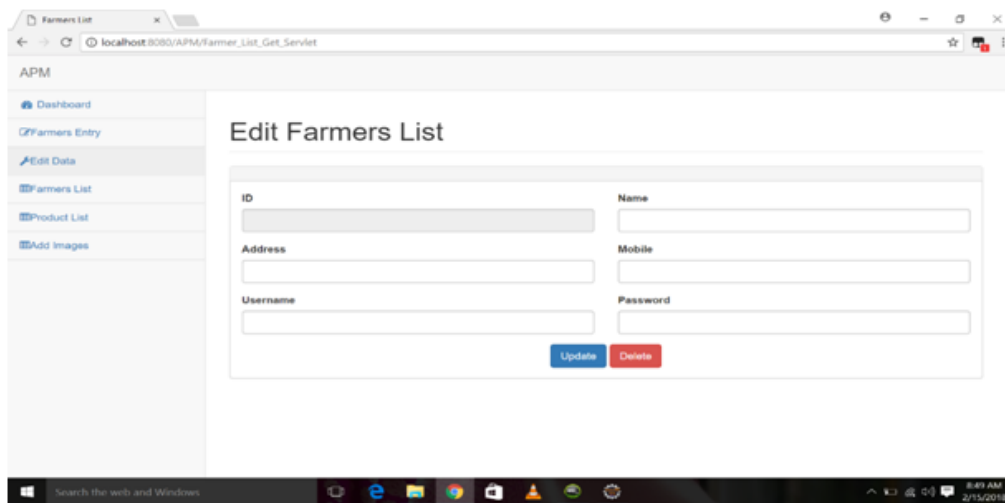


### Add Farmer List:



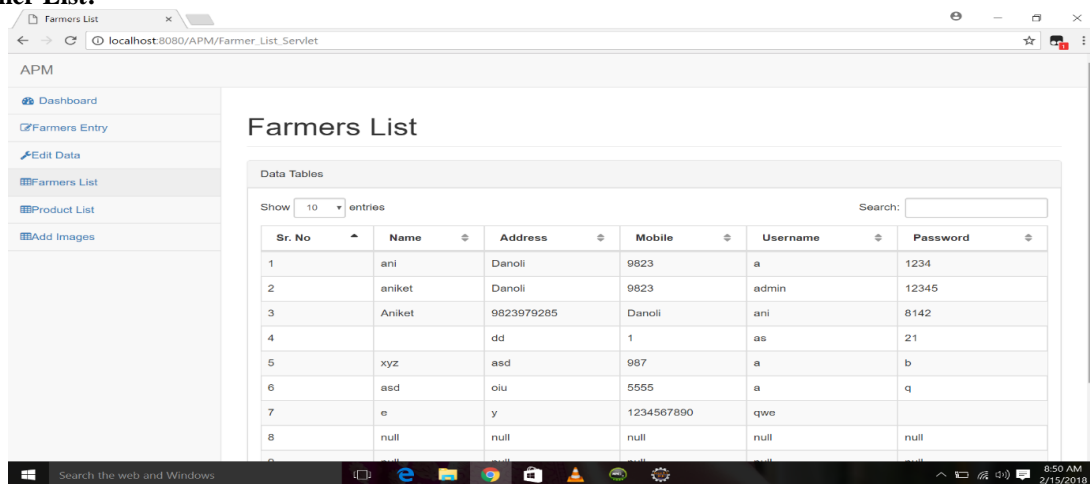
This is farmer entry page. In this page apmc has to add information of farmer like name, mobile number, address, username and password etc. for making entry of farmer in database.

**Edit Farmers List:**



If apmc want to modify any farmers information then that can be done in this edit farmer list page.

**Farmer List:**



If apmc want to check the information of farmer and how many farmer's are enrolled that can be entered in this page.

## VI. Conclusions

A user's social interaction on a digital platform such as is equally important in evaluating the user as social interaction is in real life. Generally the Farmers have to face a lot of problems in selling their product at APCM's. This all is done manually. Hence need to develop an application that can solve the mentioned problem. This application is come with just that solution.

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