

Impact of Rural Transport on Agricultural Development

Anchal Jaiswal¹, Saumya Singh², Tushar sisodia³

^{1,2,3}*Computer science and engineering, Galgotias University, Delhi, India*

Abstract - Kheti-Baadi is an effective mobile telecommunications system to support the distribution of agricultural information and advice to a producers' federation. This is best served by a more efficient, advanced, transportation and marketing system where the costs of the transport and marketing unit are lower. If the boundary between what the farmer gets from selling his product and that the city buyer pays for his product is high then the practical need transferred to the farmer will be reduced accordingly. Similarly, if the cost of domestic travel is very high then the area of agricultural exports will also suffer compared to other more efficient countries.

When analyzing the transport of agricultural products, it is pointed out that the cost of travel plays a very important role in identifying the link between accessibility and agricultural development. A good transport system is essential for efficient agricultural marketing.

There are many problems and obstacles associated with the transportation of agricultural products. If transportation services are uncommon, cheap or expensive farmers will be in trouble when they try to sell their crops. Expensive service will usually result in lower prices for farm gates (the price a farmer earns by selling his product). Occasional blocked roads or slow and irregular transportation services, as well as poor storage, can lead to losses.

This ACTIVITY will help the Farmer to reduce the cost of travel in combination to get the best returns.

Index Terms - Rural Roads, Transport Services, Poor Access, Agricultural Production, Marketing System, Product prices, Market malpractice, Warehousing Corporations.

INTRODUCTION

Transportation is considered an important factor in improving agricultural development globally. The only way in which farm-produced food is delivered on the farm is delivered to different homes and markets. Transport creates agricultural commodity markets, promotes regional and economic retrenchment and opens up new areas of economic focus. In addition, agriculture is the most important human activity

including not only crop planting, but also annual renewal. According to Johnson, V.A. (1999), "all profit-making work is no better than agriculture, it is useless, no more enjoyable, you can no longer be a free man". Agriculture has always played a leading role in the lives of people all over the world especially in India, with about 65% of the total population engaged in agriculture. However, Ogunsanya (1981) noted that there are three types of routes in rural areas viz; forest roads, unpaved rural roads and rural roads. However, the forest path is very common but highly developed along all routes. Especially during the rainy season, tree paths connect villages with agricultural areas and are often closed, turned and sometimes full of weeds. In a study conducted by Filani (1993) in rural Nigeria, it was found that where there are sad roads most of them are unpaved, narrow, circular, and have low-level bridges. In many cases, they are full of holes or are separated by depression and loosening.

When analyzing the transport of agricultural products, it is shown that the cost of travel plays a very important role in identifying the link between accessibility and agricultural development. A good transport plan is essential for successful agricultural marketing. In the distribution of agricultural products, road transport plays an important role as it is a major means of transporting agricultural products from farms to markets and various urban communities. The only way to produce locally produced food is to separate homes and markets. Transport creates an agricultural product market, improves regional and economic connections and opens up new areas of economic focus. Describe the anxiety or challenges that go with it. Suggest what needs to be done to overcome it.

OBJECTIVE

1. Examine the effects of rural travel of road production on the farmer's farm income.
2. Determine the productivity level of farmers in respect of product delivery.

- Find different ways to travel agricultural product in the learning environment.

STUDY OF FARMERS FACING PROBLEMS IN INDIA



Figure 1

It is not possible that every farmer having knowledge how to operate the app for the betterment. It may be possible to know all the functionality of the app but if it is not there is a solution for the farmers for the betterment. Agricultural products are a lifeline and an important source of human survival.

Agro products include a variety of agricultural-related products such as immature and finished goods under the categories of plants, animals and other species. Agriculture benefits greatly from high and reliable high demand in cities, and abroad. The agricultural products produced must go through a series of activities such as harvesting, threshing, crossing, bagging, shipping, storage, processing and exchange before they reach the market, and as seen in several studies across the country. There is a significant loss in crop extraction in all these categories. This is best served by a more efficient, advanced, transportation and marketing system where the costs of the transport and marketing unit are lower.

If the boundary between what the farmer gets from selling his product and that the city buyer pays for his product is high then the practical need transferred to the farmer will be reduced accordingly. Similarly, if the cost of domestic travel is very high then the area of agricultural exports will also suffer compared to other more efficient countries.

When analyzing the transport of agricultural products, it is pointed out that the cost of travel plays a very important role in identifying the link between accessibility and agricultural development. A good transport system is essential for efficient agricultural marketing.

In the distribution of agricultural products, road transport plays an important role as it is a major means of transporting agricultural products from farms to markets and to various urban communities. The only way to produce locally produced food is to diversify homes and markets. Transport creates an agricultural product market, improves regional and economic connections and opens up new areas of economic focus.



Figure 2

However, in any development that takes place, transportation plays a very important role. According to Ajiboye and Afolayan (2009), road transport is a common and complex network. It is versatile, easy to use, flexible and often the most efficient and readily available means of transportation.

Many economists have pointed out that agricultural marketing is a system of time and space. There are many difficulties involved in agricultural marketing as agricultural production involves risks such as the potential for extinction and also depends on the type of product. If agricultural production happens as a season, it is also dangerous. Similarly, there are a number of risk factors involved in agricultural marketing. Product prices depend on factors such as the time of year and the potential for extinction and depend on demand and supply. And all of this combined and ultimately had a huge impact on agricultural marketing. With regard to India, agricultural marketing is by no means a commercial in a literal sense. It is a form of 'shared management' of agricultural production as there are a number of mediators involved in marketing the agricultural product.

However, with freedom, private trade and global trade the economic situation in India has changed dramatically and dramatically. As a result we have been aware of changes in 'distribution management' and have revitalized and emerged as agricultural marketing. This is largely due to the proliferation of

large retail markets that are large consumers in large quantities and who are always looking for products that are fragmented, segregated, of the same quality, processed and integrated rather than fragmented. They also look at the provision of quality and equity of agricultural stocks on a regular basis to overcome competition in the retail sector.

Various problems in the Indian agricultural marketing system are mentioned as follows:

Invalid storage areas

Farmers are forced to store the product in mud containers or katcha warehouses. This results in unsanctioned storage that can be wasted or discarded immediately. It is recommended that Rural Godowns and archives be established. To some extent, the establishment of Central Warehousing Corporation and State Warehousing Corporation has improved the situation.

Lack of grading and standard placement

A major problem in marketing agricultural products is that there are no appropriate grading and standardization strategies. This leads to the sale of Dhara (bulk) where all product attributes are sold in one place. An agricultural expert cannot find the right amount of a better product and this emphasizes that there are no incentives to use better farm inputs and produce better varieties. Therefore, a farmer who produces better quality is not guaranteed a better price. There is therefore no temptation to use better seeds to produce better varieties.

Insufficient transportation services

In India, it is also a matter of concern. There is limited transportation because only a handful of villages are joined by trains and pucca roads leading to the mandies. As a result, farmers took their produce to Mandi by oxcart or other such means. The product, which is perishable, should be discarded in the nearest market at very low market prices.

There is also a large network of agricultural commodities that significantly reduces the farmer's share. This series includes rural traders, Kutchadhtiyas, Pukka Adhtiyas, Brokers, wholesalers, retailers etc.

Market malpractice

The farm product market is largely uncontrolled when the business is controlled by traders and Adhtiyas. Many cases like Adhat (bond obligation) and Tulai (weight loss) have to be paid by farmers. Even now the number of unregulated markets in the country is very high.

With sufficient market information

Farmers do not have enough knowledge to sell their produce. If the relevant market information is not available to farmers, they accept any value from the sellers. Recently, however, the situation has changed dramatically under the influence of information technology. Insufficient Farm Credit: The farmer needs to sell the product immediately after the harvest, even though the prices at that time are very low. He could be saved from this "forced sale" if credit facilities were available at banks.

EXISTING APP

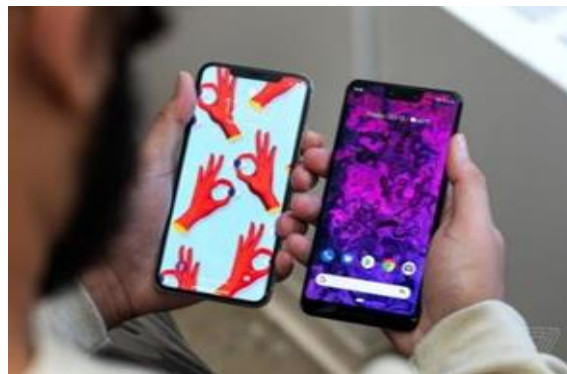


Figure 3

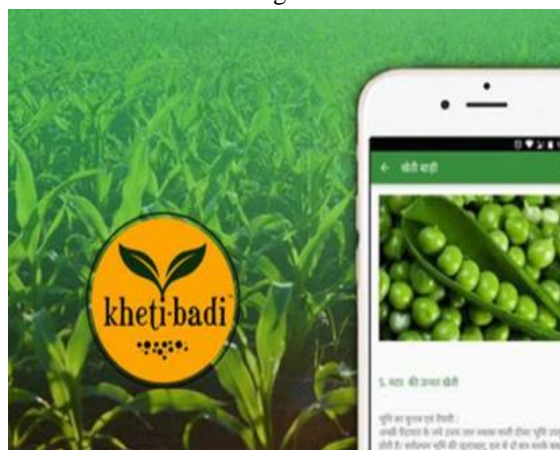
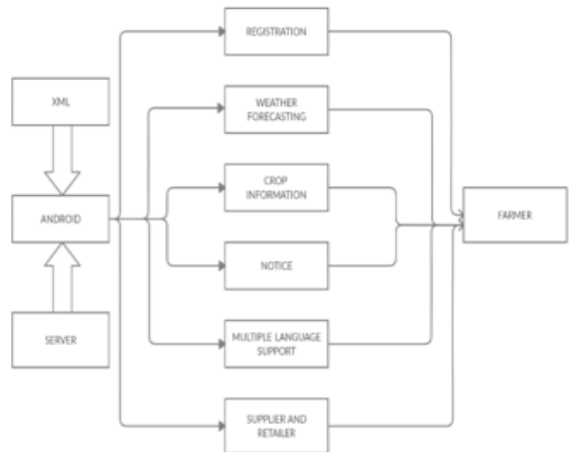


Figure 4



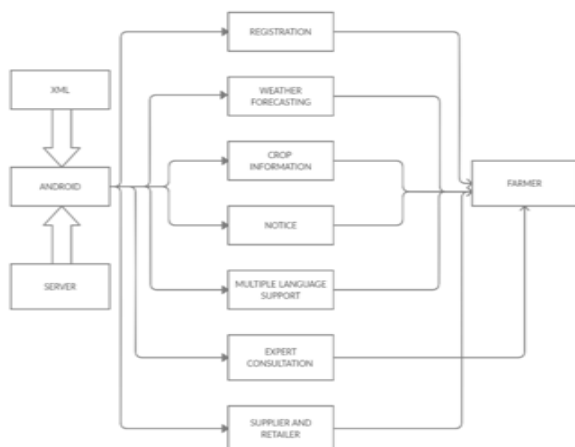
DEMERITS OF EXISTING APP



Figure 5

- 1.The smart agriculture needs availability of internet continuously. Rural part of most of the developing countries do not fulfil this requirement. Moreover internet connection is slower.
- 2.The smart farming based equipments require farmers to understand and learn the use of technology. This is major challenge in adopting smart agriculture farming at large scale across the countries.
- 3.There is lack of expert consultation.

PROPOSED APP



ADVANTAGE OF PROPOSED APP



Figure 6



Figure 7

- 1.It provides the expert consultation for the betterment of selling the crops at the reasonable price.
- 2.24x7 expert consultation available for the former for any queries.
- 3.It allows farmers to maximize yields using minimum resources such as water, fertilizers, seeds etc.
- 4.Solar powered and mobile operated pumps save cost of electricity.
- 5.It is cost effective method.
- 6.It delivers high quality crop production at reasonable cost.

RESEARCH METHOD

Primary and secondary data sources such as questionnaire, focus group discussion, texts, journals and Internet browsing for read. Two hundred respondents were selected 10 residential areas in the local government area usesystematic sampling method. In each chair, a total of 20 copies of the questionnaire were submittedon farm families. A list of questions is requireddetails on the social and economic aspects of respondents, farm income, travel expenses, type and production of agricultural product and the frequency of modes of transport used and the effects of transport on agricultural production.

Conversations and discussions with Transporters and farmers respectively to earn express their own opinion of the circumstances the roads to each residence are sampled. Descriptive figures such as wave tables as well percent used to analyze the data.

MAIN CONSTRAINTS IN THE AGRICULTURE PRODUCE

The Working Group of the Planning Commission has approved a number of restrictions on the agricultural marketing system. Formal marketing of agricultural products has been promoted in India through a system of regulated markets owned, operated, and managed by Agricultural Commodity Committees (APMCs). The main challenges in local agricultural marketing are the following:



Figure 8

Variations on Market Fees / Market Fees:

In accordance with the provisions of the APMC Act of States, all market committees are authorized to collect market fees from licensees (sellers) in the prescribed manner for the sale of informed agricultural products delivered by farmers or retailers at such market prices as prescribed by the State Government. The amount of goods delivered under a controlled state varies from state to state.

Ignorance of Rural Markets: There are more than 21000 temporary local markets left outside the development process. These markets establish the first points of communication between the manufacturer's supplier and the commercial circuits. Most of these markets do not have basic locations.

Lack of Common Commercial Language

The various standards / details of agricultural products are followed by various organizations in the country. Standards set out in the PFA Act by National

Standards. Apart from this, there are Agmark Standards, BIS Standards, Army Standards Standards, Standards modified by Warehousing Corporations and those by Food Corporation of India for purchasing purposes. Traders of various goods have found their trading levels in various parts of the country. Therefore, the lack of a common trading language is a major obstacle to developing a controversial agricultural marketing system in India.

Variations of Income Tax / Octroi and Sales Tax

Income taxes / octroi taxes and sales taxes levied on different agricultural assets vary from Government to State which increases the cost of agricultural production and gives inaccurate signals to farmers that hinders productivity growth, and which leads to illegal trade. This also creates irritation at the country's borders which causes significant delays in exports.

Regulations under the Essential Commodities Act

Although the central government has lifted all restrictions on the placement and distribution of assets, many national governments still use a number of regulatory orders promulgated under the EC Act. These regulatory requirements create demand for enforcement personnel at border checkpoints that form barriers to installation on the move and storage of agricultural property. There has never been any relevant information about the withdrawal of restrictions under the ECA. With the repetition of stock limits, the situation is complicated by the current situation.

MAIN CHALLENGES OF TRANSPORTATION ON FARMERS

In summary, the area of agricultural production has become one of the most important means of the Indian economy. The growing trend for agricultural production has brought many challenges in terms of finding a residual market in the market. There is also a need to address the challenges and opportunities in global markets. Transportation is considered an important factor in increasing agricultural productivity. It improves the quality of life of the people, creates an agricultural product market, facilitates inter-regional and economic linkages and opens up new areas of economic focus. There are two categories of transport space. Firstly the road network

provides communication between farms and the market and secondly,

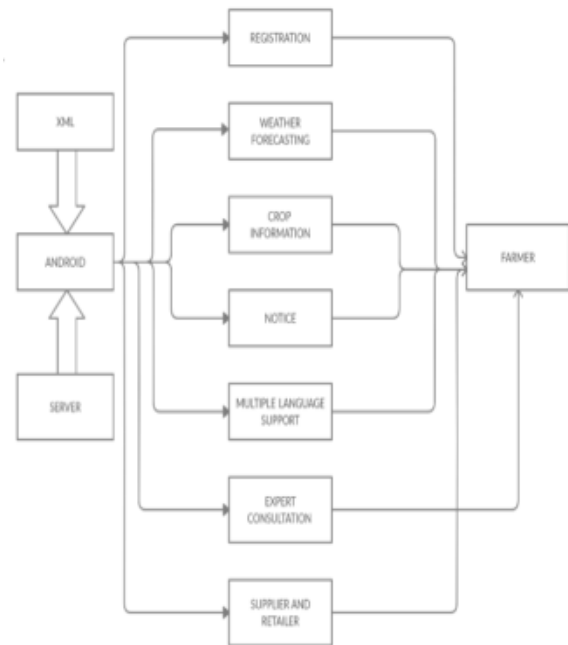


Figure 9

transport equipment carries agricultural products. The efficiency of road transport depends on the type of road provided. When evaluating roads are being built, only a cart can be driven which will interfere with the operation of agricultural transport (Ali Mohammad, 1979). In assessing the marketing of an agricultural product, it is assumed that agricultural marketing is mainly involved in the purchase and sale of agricultural products. In ancient times, when the local economy was self-sufficient, marketing of agricultural products did not make it difficult for a farmer to sell his produce to a consumer in exchange for money. Currently, agricultural marketing should transfer a series of exchanges or transfers from one person to another before it reaches the consumer.

Major changes in food security and subsistence farming are needed to adopt a holistic and integrated approach to ensuring integration in animal husbandry, fisheries, agriculture, smallholder forest and small-scale intermediate forest products. rainy areas. There is a need for urgent measures to build brooder houses on each block of unsuitable farmers, increase storage facilities, and improve food rationing. It has been pointed out that the current system of agricultural marketing in India is the result of many years of Government intervention. The system has undergone several changes over the past forty years due to the increased market value; rising urban living and wage rates and successive changes in the demand for marketing services; increased connections to distant and overseas markets; and changes in the nature and level of Government involvement.

COMPLETE WORKPLAN LAYOUT



Main Module

Registration

Registration form will take information of farmer. The information includes like farmers name, Residential Address, City, State, Mobile Number, Email Address. The location of farmer by zip code for providing daily weather forecast report of that location. Mobile number of farmer to give the daily updates by text message. If the user first not register then he/she must need to register first. Once the user registered the page then he/she can directly access the application by login.

Weather

In weather forecasting report application will provide weather forecasting report of particular location, and perfect location of farmer will be taken from zip code which is already registered on registration page. The application gives the weather forecasting by using url through the respective weather site. And the Weather forecasting is depends on the farmers entered location. According to location of farmer daily news will be provided on mobile phone which is already registered on registration page and also on application.

Supplier and Retailer

A Supplier relationship is one in which a reseller buys from a supplier for the purpose of reselling and making a profit In this field Retailers play a big role in maintaining the sustainability of consumption and

production who is supplying the crops. In this feature all information related to retailer and supplier are saved in database.

Crops Information

In this field farmer will get the information about different crops. Which crop should get in which season. Crop information will be displayed in many languages like Marathi, Hindi, English. On one click farmer can access the crops information in his/her own language.



Figure 11

Notice: Notice field is used to display the notice related to farming. In this application farmer will get notifications related to crops and crops price means total information about crops and he/she will get also information about weather forecasting information.

Voice Speech

This is application provide voice typing feature This feature makes farmer very easy to type what they want information. By continuously holding this button he/she will speech which information they want and he/she will get information about they entered.

Multiple language support

In multiple languages support application will provide all information in various languages according to regions, like application will provide all information in Marathi, English, and Hindi etc. All the information will be already stored in different languages, just user has to press button of particular language and information will be displayed in particular language.

Expert Consultation

Accurate advice for good farming practices and good support can be given. This could affect crop yield improvement and more accurate assessments for the condition of pastures.

Application will provide daily updates and changes in prices of crops in market. This all information will provide on mobile phones and also on applications home page. The market price button shows latest price of all crops traded in the market or registered agriculture market of the particular district a farmer belongs to. Additionally, he gets to see the maximum price in the district, state and the entire country on a particular day.

CONCLUSION

Finally, with the analysis of current farmers knowledge about modern farming techniques and actual development of modern techniques this application will more helpful them to get all kind of information only in one touch on anytime at any place. The study examined the impact of road transport with agricultural product in JalangiBlock Murshidabad. From the study, it was revealed that road transport has a huge impact allocation of agricultural product in the learning environment. It can therefore be concluded that road transport it needs to be improved in order to improve agricultural production is usually in the study area. This will generate revenue and improve the standard of living of farmers and residents of under-study communities. In addition, public participation should be promoted in road construction.



Figure 12

REFERENCES

- [1] Aderamo, A.J and Magaji, S.A. (2010) Rural Transportand Allocation of Public Lands in

- Nigeria: The Case of Edu's Home Area in Kwara Province. *Journal of Human Nature*, 29 (3): 171-179. Kamla Raj Publishers.
- [2] Tunde, A. M., and Adeniyi, E. E. (2012). Road Impact Transport in Agricultural Development: A Nigerian. For example: *Ethiopian journal of natural studies as well Management*, 5 (3).
- [3] http://www.iraj.in/journal/journal_file/journal_pdf/14-424-151685922016-19.pdf
- [4] Written O 1986. Rural Transport In: Falola, SA Olarewaju (Eds.): *Transport Plans in Nigeria*. Syracuse University, Maxwell School of Citizenship and Public News. Series XLII: 125-138.
- [5] <https://worldwidescience.org/topicpages/a/agriculture+case+study.html>
- [6] <https://naldc.nal.usda.gov/download/IND43893743/PDF>
- [7] <https://www.civilserviceindia.com/subject/General-Studies/notes/transport-and-marketing-of-agricultural-produce.html>
- [8] "Rural Transportation Problems: A Case Study of Tea roads in the southern tea growing region of meru-kenya" by-BUNDI, JEREMY MIRTI
- [9] "A Case Study on Status of Farm Mechanization Under Animal Farming in Chhattisgarh"-by AmitNamdeo, N K Dhruwe, V.M. Victor
- [10] https://www.academia.edu/3484842/The_impact_of_transportation_on_agricultural_production_in_a_developing_country_A_case_study_of_kolanut_production_in_Nigeria