

# E-COMMERCE APPLICATION FOR AGRICULTURAL PRODUCTS

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## ABSTRACT

*Electronic commerce (EC) is a term for any type of business, or commercial transaction that involves the transfer of information across an electronic network, primarily the Internet. EC has expanded rapidly over the past decade and is predicted to continue at this rate, or even accelerate because it allows consumers to exchange goods and services with no barriers of time or distance and it is often faster, cheaper and more convenient than the traditional methods of commerce. It is clear to see that EC is an area of importance in the field of business research, but there have been only few literature review on this area, and hardly any of them are recent study. In this paper, an updated literature review and classification framework for EC research is presented. The study is based on the analysis of a large number of publications (especially journal articles) related to EC using various electronic journal databases and printed journals. All of the papers in the review are classified according to proposed classification framework which consists of main and sub-categories based on their main focus and results of these are presented. The results of this study demonstrate that an increasing quantity of EC research has been conducted for a wide range of areas. It is to be hoped that this study will be helpful for anyone interested in EC as a source and arouse more interest.*

**KEYWORDS :** E-Commerce, Business, Consumer, Agricultural Marketing, Rural Development, Mobile Application, Web-based Application, Farmer.

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## INTRODUCTION

The rapid developments in the communication technologies result in crucial transformations in human life. One of these transformations is related to the changes in shopping styles. Along with the improvements in the internet, online shopping has been more popular among users. Consumers can shop from online stores that allow them to shop without physically going into shops. Nowadays, the internet has been an essential business platform for the product trade of products between organizations and consumers and even between consumers themselves.

With EC, companies can have a competitive advantage by accomplishing just in time production and distribution. EC can be basically defined as the production, promotion, selling and distribution of products and services in an online environment. Besides, EC can also be defined from several different aspects as follows: Communication aspect:

EC is the distribution of products, services, information or payments via computer networks or any other electronic environment. Business process aspect: EC is the usage of the technology by the automation of process and work-flows of companies. Service aspect: EC is a tool helping companies, consumers or managements to decrease their costs while increasing the speed and quality of a service.

Online aspect: EC is the buying and selling of products or information with the help of the internet or other online services. Considering the characteristics of its business operations, EC can be classified under five categories Business-to business (B2B): B2B EC, also known as inter enterprise commerce, consists of the trade between companies by using the internet or computer networks.

Business-to consumer (B2C): B2C EC is defined as the selling of the businesses into the general public

which is the most attractive trade through the internet. Online insurance and banking can be counted under this category.

Consumer-to-consumer (C2C): C2C EC which is defined as the electronic trade between consumers is very similar to the retail market. This kind of EC consists of the trade of the second-hand products. Sahibinden.com is one of the examples for this category.

Consumer-to-business (C2B): C2B EC consists of a bidding process in which consumers announce a project and the budget while companies make their bids for that project. After that, a company is selected by the consumer after examining the bids.

Business to government (B2G): In B2G EC, businesses sell their products and information to governments or government bodies through the usage of online transactions. An example of B2G is the applications and follow-up of government auctions through the internet. The interest through EC has been increasing day by day because it allows an unlimited freedom to choose the products and shopping style as well as a 24 hour e-trade environment. Additionally, it provides products and services quickly and informs from the newest products and services, etc.

## RESEARCH METHODOLOGY

Considering various research interests in EC such as application areas, technological infrastructure, and public policy, it is clear that EC research cannot be classified in a narrow scope. Today, EV studies are published in various journals by researchers from different disciplines. For instance, while researchers from engineering disciplines are interested in EC's technological infrastructure, researches from social disciplines dealing with public policy subjects of EC such as loyalty and trust. This survey was performed using "electronic commerce", "e-commerce", "electronic business", "e-business" and "internet commerce" keywords.

## LITERATURE SURVEY

A considerable amount of research has been done on the working performance of agricultural marketing in India, by the academicians & researchers. The literature obtained by the investigator, in the form of report and research studies, is briefly reviewed in this part.

Hoff et al. (1993) in their research paper documented that in response to the deinstitutionalization of rural areas that followed state compression, the reconstruction of new agrarian institutions. A considerable amount of research has been done complementary to the market and the state is thus a fundamental element of rural development. This has taken the form of either private or cooperative organizations.

Grosh (1994) believed that since the turn of the millennium, attention has shifted toward more micro level and institutional policies. In particular, contractual arrangements with downstream processors, agro exporters and retailers, often or chest rated through farmer groups, are increasingly seen as a means of overcoming the market imperfections that led to the failure of macroeconomic and sectoral adjustment policies.

Reardon and Barret (2000) in their study suggest that when market reforms the commodity prices rise, stimulating an increase in production, especially of the export crops. The rise in price facilitates the establishment of supermarket chains, cooperatives, export oriented schemes, processing zones and general stimulation of agro industrialization in developing countries.

Sivanappan (2000) in his study stated that with modernization of existing post-harvest processing, establishment of suitable infrastructural facilities, huge amounts of the country's exchequer can be saved and further helps in feeding the teeming population in the country.

Hota et al. (2002) in their study viewed that cooperatives occupy an important part in India's economy in terms of their coverage of rural producers, business turnover and contribution to economic welfare of their members as well as to the rural economy of India.

Reardon et al. (2003) in their study documented that private firms now play a dominant role in countries such as China, India, South Africa in developing improved seed varieties producing and distributing inputs, post-harvest operations and retailing through super markets.

Royce (2004) reported, even though State agencies continue to be the main buyers of output and suppliers of input limiting cooperatives management authority within. There is much greater member participation and on-farm decision making.

Ramkishen (2004) in his research paper argued that because of the lack of food processing and storage, the grower is deprived of a good price for his produce during the peak marketing season while the consumer needlessly pays a higher price during lean season.

Godara (2006) in his study described that the positive trend of economic liberalization and associated opening up of Indian economy have significantly reduced the structural rigidities in the system; this trend should be the premise of India's future agricultural reform. Agricultural business has come under strong and direct influence from the international market. Indian farmers have to produce quality goods to meet the international standards.

Brithal et al. (2007) in their study suggested that by building an efficient and effective supply chain using state of the art techniques it is possible to serve the population with value added food, while simultaneously ensuring remunerative prices to farmers.

Tripathi and Prasad (2009) in their paper reported that Indian agriculture has progressed not out-put and yield terms but the structural changes have also contributed.

Pathak (2009) in his research paper stated that the contribution of agriculture in growth of a nation is constituted by the growth of the products within the sector itself as well as the agricultural development permits the other sectors to develop by the goods produced in the domestic and international market.

## **PROPOSED SYSTEM**

E-commerce is the activity of buying or selling of product and services online or over the internet. Organizations can expand their market to national and international markets with minimum capital investment. The target of the proposed system is to reduce the cost to create process, distribute, retrieve and manage the paper-based information by digitizing the information. The proposed project also intends to provide better customer services by simplifying the business processes and make them faster and efficient. The mobile application will provide users with more options and quicker delivery of products.

The proposed system also provides users with more options to compare and select the cheaper and better options. It provides readily available information by helping in reducing the cost of products, so less affluent people can also afford the products. Enabled rural areas to access services and products, which are otherwise not available to them. There is a great scope for e-commerce in agriculture, especially in horticulture and processed products. E-commerce helps to minimize inventory costs many times by adopting just in time systems. Under E-commerce the customers place orders immediately on the net and goods are delivered under normal way.

## **HARDWARE & SOFTWARE REQUIREMENTS**

### **1. Hardware Requirements**

#### **❖ 1 GB RAM**

Intel 1.66 GHz Processor Pentium 4  
200 GB HDD

#### **❖ Any Android Mobile Phone**

### **2. Software Requirements**

#### **❖ Integrated Development Environment:**

##### **i. Microsoft Visual Studio**

ii. Android Studio

❖ Database: Microsoft SQL Server

❖ Operating System:

- i. Windows
- ii. Android

❖ Web Browser: Google Chrome (recommended)

❖ Technology Stack:

- i. Asp.Net
- ii. HTML
- iii. CSS
- iv. C#
- v. Android Studio: Java

## ARCHITECTURE DIAGRAM

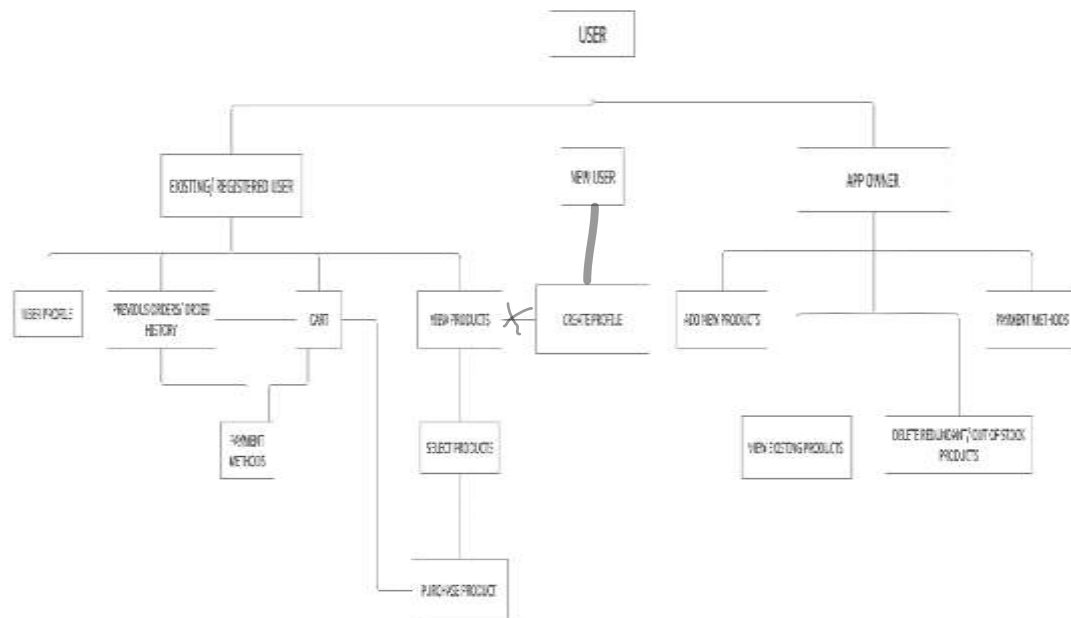


Figure 1. Architecture Diagram

## USER FLOW DIAGRAM

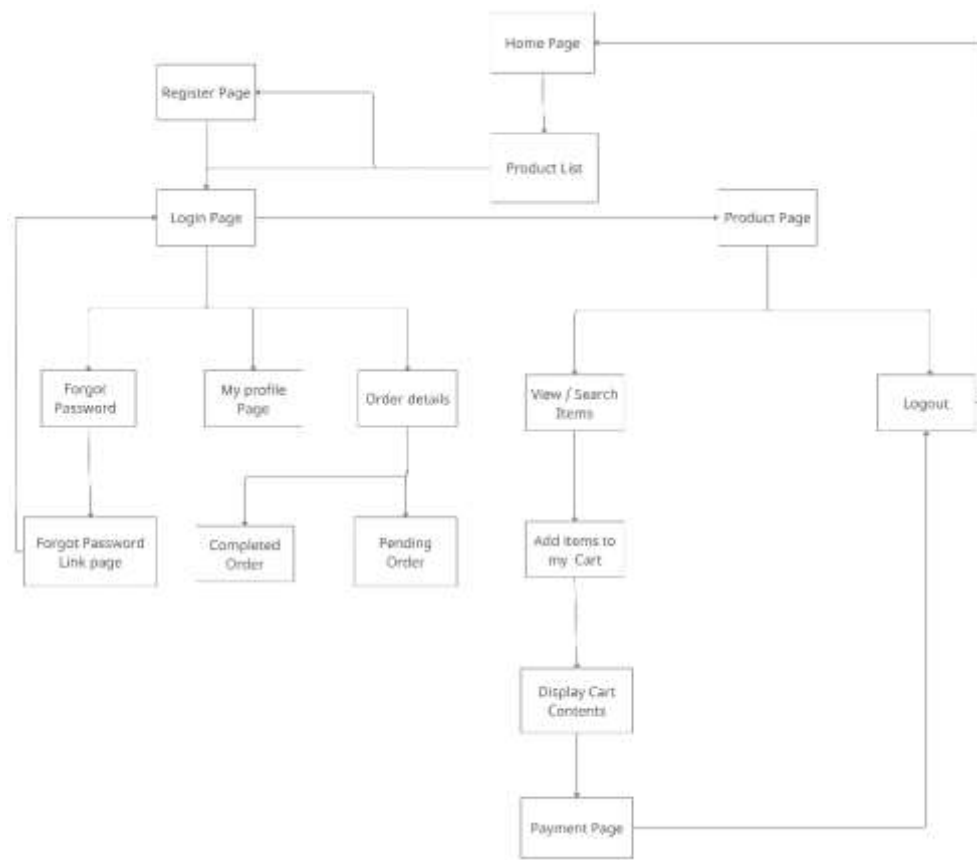


Figure 2. User Flow Diagram

## CONCLUSION

This paper provides a survey on various techniques of the e-commerce site to ensure the farmer to their exact profitability or to earn their products current rate of market. A few strategies between in this paper which are selected on the basis of implementation technology used. This paper supports understanding the essential needs for designing the site and detecting the lack of sites, & planning its implementation strategy. Agent based Agric-EC is a new system that promises to change the way farms and individuals purchase agricultural products by delegating tasks involved in buying and selling to intelligent mobile agents. Also this system promises to connect buyers and sellers in a way that ensures the integrity and visibility of valuable products to consumers, while trading partners can share a wide range of communiqué and data. In this study, price comparison was the major focus. An effective E-commerce site, buyers' experience must surpass the store experience such as price comparison (buyers want a fair price) and detailed product information. When implemented, the integrity, effectiveness and efficiency of trading in the agricultural industry is ensured. It stands a better chance of generating higher revenue for the government than E-commerce.

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