An original design of fresh agricultural products e-commerce platform based on Mobile Internet

Hongmin Shen

1 Economics and Management Engineering, Chengdu College of University of Electronic Science And Technology of China, Chengdu, Sichuan, 611731, China

*Corresponding author e-mail: 1336172631@qq.com

Abstract. With the development of Mobile Internet, it provides a good technological environment for the development of agricultural e-commerce. The fresh agricultural products e-commerce is to design, planning and control of the information flow, the trade flow, the fund flow and the material flow of the fresh agricultural products with a view to strengthening competitiveness. Because of the previous view, the paper design the functions of the e-commerce platform suitable for fresh agricultural products. According to the function design, we design the app prototype of the fresh agricultural products e-commerce platform, which can more accurately express the functions of the e-commerce platform.

1. Introduction

Fresh agricultural products mainly include vegetables, fruits, flowers, meat, eggs, milk, aquatic products and other fresh primary production. The fresh degree of fresh agricultural products has a direct impact on our human health, so we should pay more attention to the business of fresh agricultural products. The fresh agricultural products e-commerce can improve the means of production and consumption of fresh agricultural products.

Mobile Internet is the integration of mobile communication and Internet. It refers to the combination and practice of Internet technology, platform, business model and application with mobile communication technology. Mobile Internet includes three levels: terminal, software and application. The terminal layer includes mobile phones, tablet pc, PDA, ebook reader, etc. The software includes operating system, middleware, database and security software. The application layer includes different applications and services such as leisure and entertainment, tools and media, business and finance, etc. The biggest advantage of the mobile Internet is that it can support large-scale, social and real-time division of labor and collaboration.

Mobile e-commerce is the use of Mobile Internet for B2B, B2C or C2C e-commerce. It combines the Internet, mobile communication technology, so that people can carry out all kinds of business activities at anytime and anywhere, such as trading activities, business activities, financial activities and related integrated services activities.

This paper will design the functions and prototype of e-commerce platform for online sale and purchase of fresh agricultural products. The prototype of fresh agricultural products e-commerce platform is the interface of the mobile phone app. With the prototype, theorists and practitioners can communicate quickly and efficiently around the prototype. Everyone involved in the research of agricultural e-commerce can explore, research and make decisions according to the prototype.
2. Function Design of E-commerce Platform for Fresh agricultural products

The fresh agricultural products e-commerce platform will realize the function of selling and purchasing fresh agricultural products through the Mobile Internet. Using the app of the fresh agricultural products e-commerce platform, the sellers (including farms, fresh markets, supermarkets, etc) of fresh agricultural products can publish and sell related fresh agricultural products on the platform, while the buyers (including families, eateries, hotels, etc) of fresh agricultural products can buy fresh agricultural products on the platform. The function of E-commerce platform for fresh agricultural products is shown in following Figure 1.

![Figure 1. Function of E-commerce Platform for Fresh agricultural products](image)

According the function design of e-commerce platform for fresh agricultural products, the advantages of the platform for the sellers of fresh agricultural products are as follows:

1. Reduce the cost of sales: Sellers can reduce selling costs by using the platform, for example they may not rent storefronts or rent smaller storefronts and may hire fewer salesmen.
2. Wide sales area: Sellers can sell fresh agricultural products to the whole city or even the whole province by using the platform.
3. All-weather business hours: Through the e-commerce platform's computers, sellers can provide customers with round-the-clock service.
4. New business model: Through the platform, sellers can easily realize the new business model based on e-commerce.
5. Fast entry into the market: Sellers can quickly enter the market by installing platform APP, and then registering an account to publish fresh agricultural products on the platform.
6. Efficient communications: Sellers can communicate with customers cheaply and efficiently through the platform.
7. Improve the relationship with the buyers: The sellers can get quick response for all kinds of demands from buyers by using the platform.
8. Improvement of supply chain: By using the platform, sellers can reduce the intermediate links to sell fresh agricultural products to consumers.
9. Preferred customers: Through the platform sellers can Choosing the best customers.

According the function design of e-commerce platform for fresh agricultural products, The advantages of the platform for agricultural buyers are as follows:

1. Convenience: Buyers only need to open the mobile phone APP to buy the required fresh agricultural products.
2. More products: More fresh agricultural products can be acquired and purchased on the platform.
3. Customized products: Buyers can obtain customized fresh agricultural products from the platform.
4. Cheap products: Buyers can buy more cheaper fresh agricultural products from the platform than traditional channels.
5. Accessibility of information: Buyers can get more information about fresh agricultural products more quickly and efficiently, such as price information, freshness information, product category information, etc.
6. Group purchase: Buyers will get a relatively lower price and higher quality of fresh products by group purchasing.

7. Electronic community: Through the platform's electronic community, buyers can exchange their shopping experience and other purchase information.

3. **App prototype design of fresh agricultural products e-commerce platform**

3.1. **Topic design of the fresh agricultural products e-commerce platform App**

The prototype of fresh agricultural products e-commerce platform app mainly includes the following topic plates: Categories, Markets, Farms, Search, City, Map and Info. The topics of the fresh agricultural products e-commerce platform are shown in figure 2.

![Figure 2. Topic design of the fresh agricultural products e-commerce platform](image_url)

3.2. **Prototype design of the fresh agricultural products e-commerce platform app**

We designed the home page prototype of the platform app, through the home page prototype, then we can know the overall functions of the fresh agricultural products e-commerce platform. The prototype design of the home page is shown in figure 3.

Interface descriptions of the home page prototype from top to bottom are as follows.

1. The top section mainly includes three parts: city selection box, search input box and GPS positioning button. Clicking on city selection box, the city selection menu will pop up. Clicking on the search input box, the fresh agricultural products information on the whole platform can be searched according to four kinds of keywords, such as fresh products name, fresh agricultural products categories, fresh market's names and farm's names. Clicking on the GPS positioning button, a map of fresh agricultural products near the buyer's geographical location will be displayed.

2. Below the top section is the categories navigation icons of the fresh agricultural products. There are have eight icons: vegetables, fruits, milk&tea, eggs&honey, seafood, fishes, meats and flowers.

3. Below the categories navigation icons section is the fresh agricultural information of the best sellers.

4. Below the best sellers information section is the hot fresh market's information.

5. Below the hot fresh market's information section is the hot farms's information.

6. The bottom section of the home page is the navigation icons of the APP. From left to right is the home page icon, the categories icon, the nearby markets icon, the nearby farms icon and the Info icon.
4. Conclusion

This paper introduces fresh agricultural products, mobile Internet and mobile e-commerce, designs the model of fresh agricultural products e-commerce platform, and designs the prototype of fresh agricultural products e-commerce platform app. Through e-commerce platform, we can realize personalized demand, intelligent production and socialized supply of fresh agricultural products. From the point of view of practical application, this paper designs the functions of e-commerce platform suitable for fresh agricultural products, and then designs the APP prototype of the e-commerce platform for fresh agricultural products. The app prototype design of fresh agricultural products e-commerce platform can let us really see the interface of e-commerce platform app. It makes the research have more practical utility.

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