MOBILE APP FOR FARMERS: MAIN ADVANTAGES OF A SPECIALIZED DIGITAL SERVICE

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Annotation

The article discusses the design of a mobile application for farmers and its main advantages as a specialized digital service. The target audience of the mobile application and distribution channels are described.

Typical solutions in the field of creating specialized mobile applications for farmers are considered. Based on the analysis of competitors, the standard business model characteristic of most variants of this service is described. Using the Business Model Canvas tool proposed by A. Osterwalder describes the business model of a digital service for farms. The article also discusses the main functionality of the application and the monetization model of the service.

Key words: mobile application, farmers, specialized equipment, sale, leasing, business model.

The target audience of the developed application are farms related to small businesses. A farmer is an entrepreneur who owns or leases land and works on it.

According to Rosstat, the preliminary results of the census show serious quantitative changes, both in agricultural organizations and in farms. In 2021, compared to 2016, the number of agricultural organizations decreased by 13.6% (from 36 thousand to 31.1 thousand organizations), the number of farms and individual entrepreneurs - by a third (from 174.8 thousand to 118.3 thousand) [1]. The state is developing various formats for promoting the development of agricultural enterprises, but in many cases, the creation of infrastructure for more efficient operation of existing capacities is no less important support option than financial assistance.

The user value of the developed application is based on supporting the development of small farms by increasing the return on agricultural equipment at the disposal of farms using a specialized digital solution. One of the target groups of the application is novice farmers who do not have the financial ability to immediately purchase all the necessary equipment or new spare parts.

The relevance of the value proposition of the mobile application lies in the fact that individuals can not only sell/buy agricultural equipment, but also purchase/rent it. It will also be possible to sell or lease individual spare parts for agricultural machines. Small farms that have been on the market for a long time will benefit from exchanging idle equipment and extracting additional income from existing equipment.

For any business activity, including those related to the provision of a digital service, it is important to clearly formulate a business model, work out the main development strategies and company policies, and methods for distributing a digital product.

Consider several popular services for renting special equipment in order to get a visual representation of this type of activity. For comparison, let's take successful competitors and analyze the popular business models in this area.

«Perevozka 24» is a service for renting various types of special equipment. It offers hourly and

daily rentals. In addition to renting on the service website, you can rent your equipment for use. This service operates throughout Russia.

Types of monetization in the service "Transportation 24":

− Paid declarations on the site.

− Paid declaration promotion.

− In addition, the site hosts posts by third-party advertisers.

The main elements of the unique value proposition of the platform:

− The only site in Russia for the rental of special equipment, operating throughout the country.

− You can also rent construction equipment and buy construction materials with delivery.

The advantages of the platform include the following options:

− Works in all major cities.

− A large number of users.

− Convenient and intuitive use of the site.

The disadvantage of the platform is its low popularity on the Internet, which is a certain miscalculation in the company's marketing activities.

Another option chosen for consideration is leasing from banks. Sberbank, Alfa-Bank and other commercial banks offer to purchase equipment on lease.

Possibilities of this solution to the problem:

− Acquisition of the right equipment at the right time.

− Equipment insurance, as it is pledged in the bank.

− Purchase of not only new, but also used equipment.

Monetization is associated with interest from leasing and profit from insurance.

Among the typical monetization options for a digital service related to the provision of equipment for use, one can distinguish:

− advertising;

− paid rates for ads on the site;

− affiliate marketing;

− percentage of the lease.

Demonstration ads to users is a common monetization model for digital services. There are two types of implementation:

− Conclusion of an agreement with other digital services that have a similar theme, but provide a different range of services to their customers.

− Broadcasting advertising using advertising networks.

The main functionality of an application with an advertising monetization model is usually free. But there are paid options (tariffs) for faster achievement of the target result by the user. The offer to buy rates for the publication of paid ads is the most profitable part of all, if considered in the long term. Thanks to a paid subscription, ads will always be in the first positions of the application.

The effectiveness of such ads is much higher than that of free ads. Since a potential buyer will immediately see them.

Affiliate marketing is promotion through intermediaries for mutual benefit. It is needed in order to reach new audiences and get new customers with the help of partner resources.

Since the digital service for farmers not only provides services for the sale and exchange of equipment by individuals, but also makes it possible to lease it, the service takes a percentage of the lease [4].

Based on the combination of these features, it is quite possible to compile an average business model of a mobile application for farmers (Fig. 1-2).

Key partners	Core activity	Value propositions	Relationships with customers.	Consumer segment
Manufacturer - Agricultural machinery - Construction engineering - Car sales websites	- Sale of technique - Rent of technique - Advertising **Key Resources** - Software developers - Own content	- Loyalty program - Trial free announcement for new users - Articles and videos on agricultural machinery - Evaluation of the technique used by users	- Online chat with clients - Phone consultation - Periodic draws **Channels** - Application - Site - Social networks	- Men (predominantly) age 24 - Women

Fig. 1. The main elements of the business model of a mobile application for farmers

Cost structure	Income streams
- Cost of recommendations, R&D - Development of software and security systems for the site and application - Feedback	- Paid announcement placement - Paid announcement promotion - Third-party advertising revenue

Fig. 2. Cost Structure and Revenue Streams

We also highlight the main components of a mobile application for farmers.

− Different categories of ads: take on lease, to lease out, buy, buy for rent.

− Separation of technique by type of application.

− Mark the market price.

− Mark user reviews.

− Top agricultural news.

− Overview of technique.

− Schemes of connection and use of selected equipment.

− Novelties of agricultural machinery.

− Personal account of the user, available on all devices.

− Information about the seller and his contacts.

− Referral program: invite a friend and get bonus points with which you can pay for an ad or its promotion.

− Online chat 24/7 with the ability to discuss any issues;

− Reviews tab. Each client can write a review, as well as post their photos / videos about the purchase.

The main task in designing the structure of an application is a logically understandable interface.

In the mobile application for farmers, the main menu will consist of sections, categories, subcategories and an icon with the name of the application. The main sections in the main menu will be selling, renting, exchanging, chat and personal account. If an unregistered user wants to go to the

"Chat" section, he will receive a warning that only authorized users can view the chat.

For example, let's take the "Sale" section. In this section, all products offered by individuals for sale. In the left part of the application window there is a filter for records: type of equipment, price, city, seller rating (decreasing, increasing). If you immediately select the category "Equipment" and the subcategory "Types of equipment" in the main menu in the "Sale" section, then the changes will automatically appear in the filter.

When clicking on the ad, the user can view photos of the product, its characteristics and its price. Also, the user can find out the last name and first name of the seller. You can contact the seller via a replacement phone (free number protection) or via chat. At the bottom of the application form, there will be recommended ads based on the interests of the authorized user. Other sections, such as rent and exchange, work on the same principle as described above.

In order to place your ad or purchase a product in this application, you need to be registered in the system. The "Personal Account" section consists of the "Login" and "Registration" categories. If the user is already registered, then he enters a phone number or email. After entering the data on the phone, the client receives a temporary code to enter the system.

In order to register, you need to enter your phone or email. Within two minutes, a temporary confirmation code is sent to the phone for confirmation, so that the system makes sure that the phone number or email is really active. After confirmation, the user enters his personal data, such as: last name, first name, patronymic (if any), city. After the user agrees to the processing of his personal data, he will be redirected to his personal account. The "Personal Account" category includes: "Photo", "Name", "Favorites", "My Announcement", "Account Settings", "Exit from Personal Account" [3].

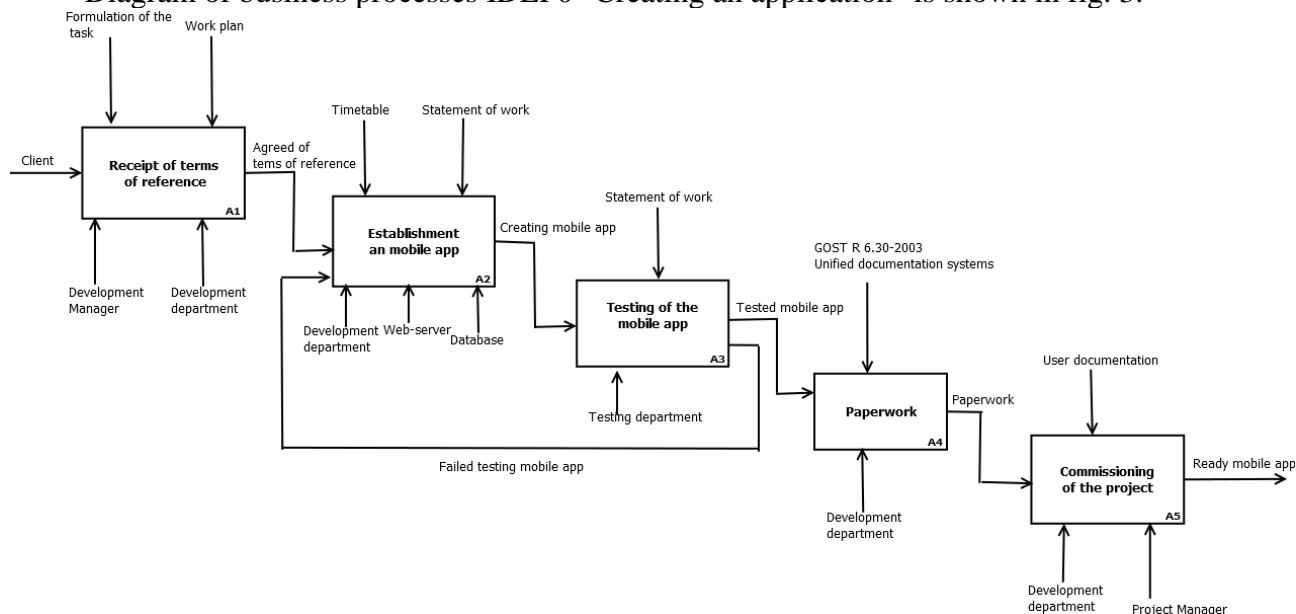Diagram of business processes IDEF0 "Creating an application" is shown in fig. 3.

Fig. 3. IDEF0 notation

In conclusion, we note that the considered mobile application for farmers has great potential precisely because of its focus on a narrow audience, since it is a specialized digital solution that will form a community united by common professional interests. And belonging to this community will allow new partnerships to appear, mutually beneficial cooperation not only in the direction for which the application is being created, but also in other types of activities in farms.

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