SLOC MODEL BASED SERVICE DESIGN STRATEGIES AND PRACTICE ON ECOLOGICAL AGRICULTURE

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ABSTRACT

Based on the SLOC mode and the Wangjingbeishu Farm, this paper aims to explore the specific design strategies and practices of SLOC mode in guiding eco-agricultural enterprises represented by ecological farms to establish more sustainable service and business models. Through the research and the survey, three strategies of service design for the Wangjingbeishu Farm are putted forward: (1) creating the brand culture including brand images and brand stories; (2) building the Internet platform and the information management platform; (3) extending the service and continuing the experience through products. According to the strategies, the product service system is designed for the Wangjingbeishu Farm, including the system map, business model canvas, service blueprint, user journey and touch-points design that include the logo, packages, app image, app interfaces, webpage, planting box for customers and planting frame for cooperative farmers.

Keywords: SLOC mode, Service design, Ecological agriculture, Social innovation

1. INTRODUCTION

Food safety is an important social issue related to human survival and health. Agricultural safety is the premise and guarantee of food safety. In today's China, where food safety is a frequent problem, as an environment-friendly agriculture focusing on agricultural safety and sustainable development, more and more agricultural organizations or enterprises have been involved in ecological agriculture in different forms including ecological farms, organic restaurants, agricultural education and so on. Among them, ecological farms are more popular and representative in China at present. The concept "Sustainable Farming" advocated by ecological farms is easier to be accepted and recognized by the public through high quality agricultural products. However, in the process of promoting the concept and developing the model, it also faces some difficulties and dilemmas. How to make its own services and business models more sustainable while upholding the concept of sustainable development has become a challenge for many social innovative agricultural organizations or enterprises that are practicing ecological agriculture. SLOC mode may provide the guidance. SLOC mode is pioneered by Professor Ezio Manzini, a well-known Italian expert in design for sustainability and design for social innovation. It means a small, local, open and connected mode (Manzini, 2015) and it is an ideal reference for social innovation organizations to establish sustainable developing models. Wangjingbeishu Farm is the object of design research and practice in this paper. It is a small ecological farm that has been committed to ecological agriculture for 5 years in Wuxi, China.

2. SLOC MODE AND ECOLOGICAL AGRICULTURE SERVICES

2.1 SLOC mode

A small, local, open and connected mode means social innovation organizations should maintain a smaller scale to ensure the flexibility and the capability to resist the risk (Manzini, 2015); should have good local attributes to solve local problems relying on local environment and resources; should have enough openness, acceptance and inclusiveness to external resources; should be connected with other partners and stakeholders to form networks or systems of distributed production (Manzini, 2015).

2.2 Ecological agriculture services in SLOC mode

The current popular ecological agriculture service modes mainly include ecological farm, community support agriculture, urban agriculture, Internet fresh platform, organic restaurant and so on. These different modes of eco-agricultural services are actually new solutions to the problems of environmental sustainability and food safety. They have the external form and value connotation of social innovation. In the form of desk research and field research, the author analysed the cases of these different eco-agricultural service modes respectively. It was found that these different service modes have great room for improvement in utilization of local resources, construction of brand identity and common culture, design of service process and user experience, replication and promotion of service modes. In view of the above, the author putted forward an ecological agricultural service mode with characteristics of SLOC mode which is flexible and easy to be replicated. It has service content from local resources that is adapted to local demands, as well as highly participatory service experience. It can form a systematic and connected service network through replication and promotion of the mode.

3. SURVEY OF WANGJINGBEISHU FARM

3.1 Field research

The original intention of Wangjingbeishu Farm was to provide people with safe and reassuring seasonal ecological agricultural products produced by sustainable planting, and to promote the spread of healthy and sustainable way of life and values. The farm currently serves about 50 local customers and the main services include organic agricultural products produced in the current season by farms in local and some foreign cooperative farms. Wangjingbeishu Farm does not have its own website. The staff contacts with customers by instant messaging software. The farm usually distributes agricultural products to customers on Tuesdays and Fridays after the ordering requirements sent to them. Another type of customer of Wangjingbeishu Farm cooperative farmers. These farmers are authorized to use the planting technology from Wangjingbeishu Farm and their agricultural products will also be incorporated into the product system of the farm.

3.2 User research

By means of user interviews and focus groups, the author made a survey of some farm's customers. The farm's customers come mainly from local citizens who agree with the core values of Wangjingbeishu Farm. All of the customers in survey were satisfied with the high quality of agricultural products from the farm. Some busy customers thought that the farm can be more flexible in the time of distribution and some customers who had children hoped the farm could hold some activities on agricultural education and experience in the future. Some young and long-term customers wanted the farm to set up its own official website for getting information and ordering. After the survey of farm's customers, the author also conducted a survey on the service and experience of eco-agriculture among the public in the form of online questionnaires.

3.3 Design opportunity

Through the field research, the author considered that for the Wangjingbeishu Farm, it needs to enrich its service content and improve its service process to enhance its service quality; build its own brand identity and operation platform to facilitate brand promotion and user experience; create a flexible service and business model which can be a product service system to help the farm spread its technology and replicate the model in order to expand product offerings and extend service scale. The author found that both the customers of Wangjingbeishu Farm and the public in survey were interested in personalized and customized services, as well as the farming activities that can be personally participated in and experienced by both the young and the old.

4. SERVICE DESIGN STRATEGIES FOR WANGJINGBEISHU FARM

The ecological agricultural service mode with characteristics of SLOC mode is the essential principle of service design for the farm. Smooth user journey is the key to service design. The target of service design is to establish and cultivate mutual trust between farms and users by improving service experience. The author divided the user journey of the farm into threes phases: service contact, service consumption, service extension and experience continuation. These three phases need different specific design strategies.

4.1 The brand culture

Wangjingbeishu Farm needs to design its own brand images and brand stories. In the phase of service contact, brand image is the primary impression left to customers. If the farm could attract the customers to comprehend the story behind the brand and realize the sense of mission, responsibility and quality of the brand in this phase, it will arouse the customers' empathy, make them generate the sense of recognition on the brand and the common view with the brand. Recognition and consensus are prerequisites for establishing consumption relationship between the farm and consumers.

4.2 The Internet platform and the information management platform

Wangjingbeishu Farm needs to design its own website, webpages and app as Internet platforms to improve the user experience of information browsing and ordering. These will also become a method to advertise and communicate with customers. With the popularity of the Internet and mobile devices, people are more accustomed to browsing information and purchasing goods on their mobile phones, tablets or laptops, especially the young. So it is also a way to attract the young and to help the farm excavate and develop potential customers. The management platform will help the farm respond to the demand for the management of customers after the growth of the users and grasp the operations.

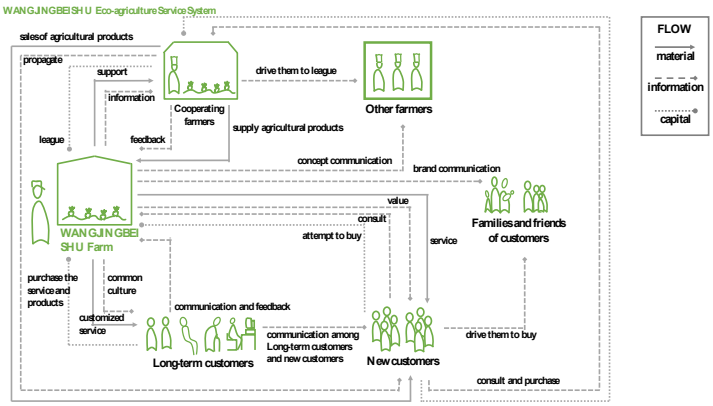
4.3 Extend the service and continue the experience through products

Wangjingbeishu Farm needs to design continuously service content and user experience to strengthen and consolidate the relationships with customers and promote the continuation of the consumption. Combined with the physical truth of the farm and demands for the farming experience from the customers, it is possible to design a domestically eco-agricultural planting experience product which is low-cost but highly operable. Customers can experience the planting at home through this product and get the guidance in the knowledge and technology of planting from Wangjingbeishu Farm.

It is possible to design standardized and modularized supporting products for planting to help the farm spread its unique concept and technology to more farmers in order to develop cooperative farmers. Cooperative farmers will learn the technology more quickly and increase productivity by this product. Even schools and communities can carry out activities such as children's agricultural education and urban community agriculture through it, so that the brand culture and service experience of Wangjingbeishu Farm will be extended to more scenarios and form a network layout.

5. PRODUCT SERVICE SYSTEM DESIGN FOR WANGJINGBEISHU FARM

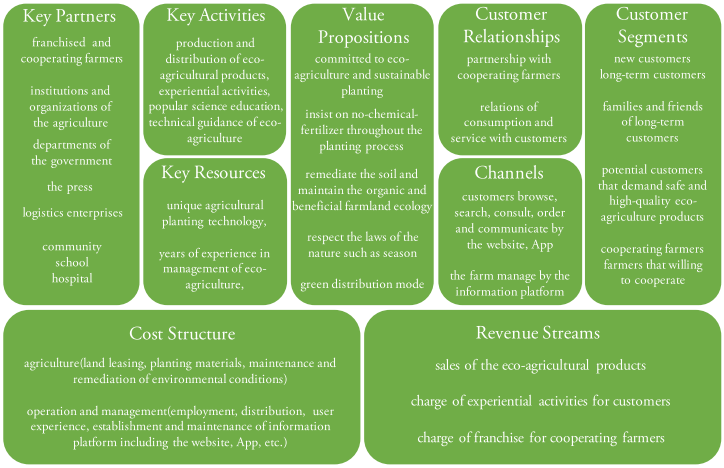
The product service system design for Wangjingbeishu Farm is the practical methods according to the design strategies. It includes the system map, business model canvas, service blueprint, user journey and touch-points design that include the logo, packages, app image, app interfaces, webpage, planting box for customers and planting frame for cooperative farmers.



[Figure 1] System Map

5.1 Service system and business model

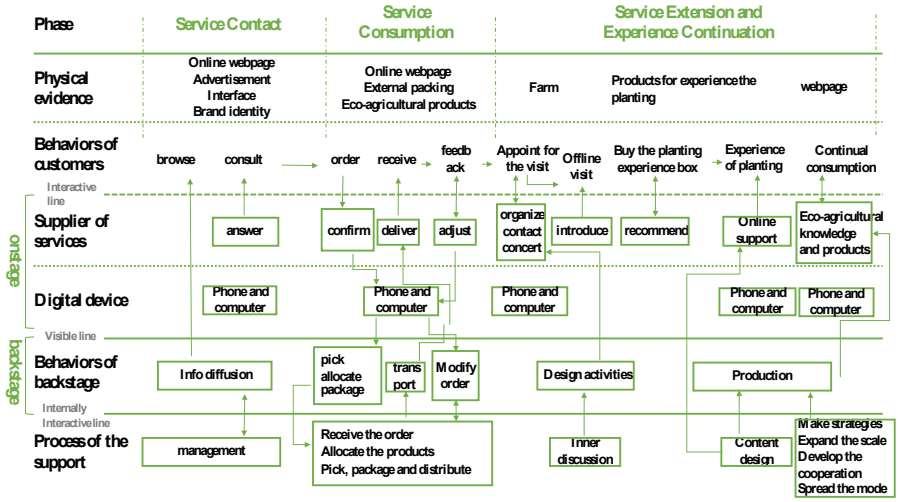
The figure 1 shows the stakeholders of Wangjingbeishu Farm and the relationships among them. The farm forms a small and flexible service system with them. In this service system, the farm and its stakeholders constitute a closed service cycle. The other farmers and customers out of this system are the potential users that can be developed by the farm in the future.



[Figure 2] Business Model Canvas

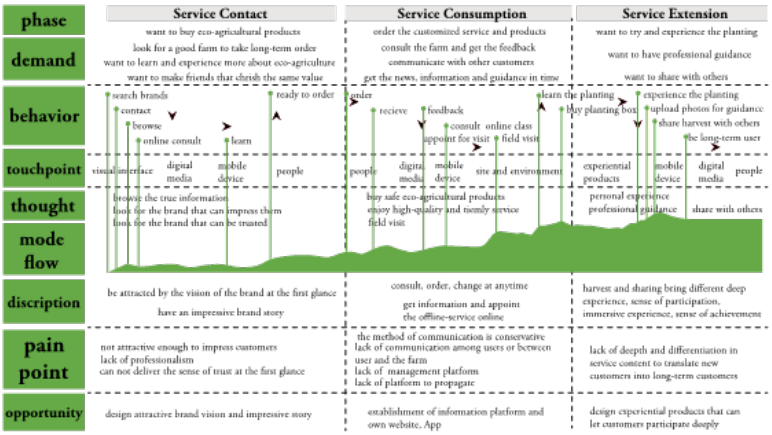
The figure 2 details the service base of Wangjingbeishu Farm, which is mainly based on local environment and social resources.

5.2 Service procedure and user journey



[Figure 3] Service Blueprint

The figure 3 depicts the interactions among different roles in the phase of service contact, service consumption, service extension throughout the whole service procedure, the physical and digital touch-points involved in the user experience, and the behaviors of customers and service supplier.



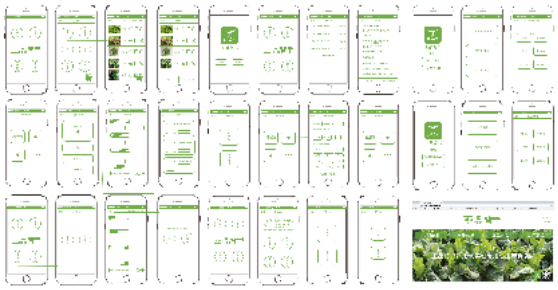
[Figure 4] User Journey

The figure 4 displays the different demands, behaviors and pain points of users in three phases of experience.

5.3 Touch-points design

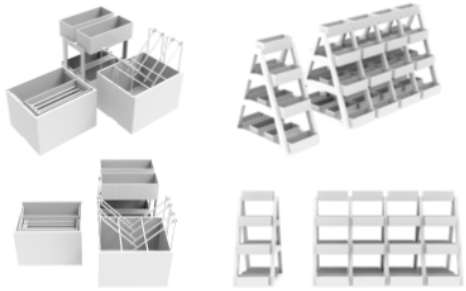
[Figure 5] Logo, Packages and App Image Design for Wangjingbeishu Farm

The figure 5 shows the design of the logo, packages and the app image for Wangjingbeishu Farm. They will leave customers the first impression of the farm.



[Figure 6] App Interfaces and the Webpage Design for Wangjingbeishu Farm

The figure 6 is the design of app interfaces and the webpage for Wangjingbeishu Farm. The app and the website will help customers consult information, contact with the farm and order agricultural products more convenient.



[Figure 7] Planting Box for Customers and Planting Frame for Cooperative Farmers

The figure 7 shows the design of a domestically eco-agricultural planting box for customers and a modular planting frame for cooperative farmers and other partners like schools and communities. The box can be assembled in two containers for different crops and in one box when not in use. It will be more convenient for customers to experience the planting at home by this product. The planting frame for cooperative farmers can be assembled in a planting array for more crops if in need. It will help farmers or other partners plant more crops in less space to improve the productivity. The planting technology from Wangjingbeishu Farm will be easier and more quickly to be learned and experienced through the planting box and the planting frame. The ideas and the mode of Wangjingbeishu Farm will also be spread wider by these two products.

6. CONCULSIONS

The design research and practice in this paper are the tentative exploration of using SLOC mode in guiding eco-agricultural farm improve and optimize its service process and business model to a sustainable state. The process and results of the design research indicate that it is instructive and productive when using SLOC mode to guide social innovation organizations in developing sustainable modes. For the Wangjingbeishu Farm, the strategies and practices will help it adjust its method of operation, promote the quality of the service, the quantity and the satisfaction of customers. It also provides referable ideas and methods for the future research on analogic issues. For the SLOC mode, this paper verifies its practicability and provide a reference and a potential method for the future research and practices on the service design, design for sustainability and design for social innovation. It is also possible for more and more enterprises or organizations that concentrate on the sustainable developing to combine the SLOC mode with the current situation and practices when they meet difficulties in operation.

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