

# CASE STUDY OF CONSTRUCTED A PROSPEROUS FOOD RESTAURANT BASE ON INNOVATIVE BUSINESS MODEL

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## ABSTRACT

The aim of this study is to propose a new term "prosperous food (盛食)" instead of "surplus food (剩食)", in order to change the concept of consumers. Since the term "surplus" imply a negative image while the term "prosperous" owed the positive image. This can reduce the wasting food in our society and build a new business model. The start-up plan wishes to build a prosperous food restaurant and at this space can sale prosperous food directly and also the food of re-produce prosperous food. This restaurant plays the role to distribute the prosperous of farm products to consumers. Then we also to hold the prosperous food holiday market and recruit consumers to harvest farm product in farm periodically. We hope we can promote this model over Taiwan after we stabilize this model in Tainan first.

**Keywords:** Business model, Surplus food, Farm products, Prosperous food.

## 1. INTRODUCTION

### Entrepreneurial Motivation

*The paradox of food crisis and surplus*

With the rapid development of technology and economy, many contradictory problems have arisen in various countries. Such as the difference between urban and rural areas and cities, the gap between poverty and wealth, and the problems of hunger and surplus food. In recent years, the uneven distribution of food and the waste of prosperous food have gradually received attention, and all walks of life are eager to find ways to improve and solutions. Excessive development, extreme weather, environmental pollution, and improper use of soil by humans have caused serious environmental burdens, which intensified the impact on the environment and indirectly raised doubts about food security.

According to the UN food and agriculture organization (FAO) and world health organization (WHO) proposed that the state of food security and nutrition in the world [2]. Global hunger population increased 3 years high, there are 821 million people hunger malnutrition in 2018, additional 2 billion people unable to acquire healthy nutritional food. Derived problems include childhood wasting and malnutrition, increase non-communicable disease and mortality rate, caused extreme climate due to climate change, regional conflicts and global economic slowdown.

On the other hand, under the lack of food situation, a lot of food is wasted in many advanced countries. Each year 1.3 billion tonnes of food, about a third of all that is produced, is wasted, including about 45% of all fruit and vegetables, 35% of fish and seafood, 30% of cereals, 20% of dairy products and 20% of meat. Meanwhile, 795 million people suffer from severe hunger and malnutrition [1]. With the global population rising, wastage of products including 45% of

all fruit and vegetables and 20% of meat is one of the greatest challenges to achieving food security [1].

Today, when environmental awareness is gradually rising, more and more companies and people are beginning to realize the importance of a friendly environment. While advocating environmental protection and reducing plastics, handling surplus food is also a pivotal focus. According to United Nations data, food production in 2050 must be increased to 160% of 2005 in order to supply the growing global population, and reducing food waste can alleviate this pressure [1].

### *The paradox of short supply to oversupply*

In Taiwan, the news topic about the price of cabbage appears every year. Every time when a typhoon passed, the price of cabbage was seen soaring, reaching its highest point. But after a few months, the price of cabbage plummeted below the planting cost. The main reason is that farmers are rushing to plant high-priced crops from the previous season.

In order to prevent the prices of agricultural products from fluctuating greatly due to unstable output, the Council of Agriculture introduced the "registration income protection system" to stabilize the prices of agricultural products. The Agriculture and Food Administration claimed that all farmers participating in the registration would match the processing industry with the harvest price plummeting and guarantee the purchase at a price of more than 6 yuan per kilogram. If the yield is too large, it will also provide a subsidy of NT\$ 100,000 per hectare. Two hectares are the upper limit, and those who have not registered will not be included in the acquisition objects.

In addition, in order to encourage farmers to register actively, an organic fertilizer subsidy of NT\$ 30,000 per hectare is provided. If there is a production and sales history of farmland, an additional subsidy of NT\$ 15,000 per hectare will be provided. Although this approach is good, it allows the competent authority to have a more detailed grasp of the means of production and can also provide assistance to real farmers, but the correlation between registration and income security is worth exploring.

### **Entrepreneurship**

In ancient times when materials were scarce, the ancestors used their wisdom to not waste food and make the best use of their materials. Compared with today's people for selfish desires or to support the scene, almost all the food that was ordered into a table turned into kitchen waste, enriched the material life but lost the heart of cherish. Therefore, I want to open a restaurant that uses the ancient methods to preserve food and teaches people to cherish the mood of food. Thinking about the past use of the term "surplus food", in the minds of consumers, people feel that it is the food that has been surplus. There is a connotation of recycling, which is easy to produce negative psychological impressions. After thinking about this research project, it is believed that the gluttony is basically caused by surplus due to abundance. Therefore, the term "prosperous food" is adopted and the brand is promoted, and this entrepreneurial plan is carried out in the category of "prosperous food economy".

## **2. RESEARCH METHOD**

### **Surplus Food**

Most of the food waste in Taiwan is attributed to the retail end and the consumer end [3]. However, in solving the problem of surplus food, the use of surplus food should be processed in accordance with the priority order, (1) reduce food waste; (2) redistribute to the demanders; (3) recycle animal feed; (4) make compost or green energy; and (5) discard [4], or according to the 3R principles: reduce, reuse and recycle.

Food surplus refers to food that has become a commodity but has not been eaten. After entering the market, food with good quality and suitable for consumption will be discarded without being consumed and turned into surplus food [5].

The source of surplus food is when food is produced continuously and cannot be provided to market demand in an effective way, resulting in food surplus, oversupply, and then food surplus [6].

From the perspective of sustainability, redistribution of surplus food is the most social priority strategy, because no additional resources are wasted, and food is used for processing in accordance with the highest priority principle [7].

The redistribution of surplus food is important to the strategic level of any company's social responsibility [8]. If oversupply is found in the production process, it should be dealt with first to prevent food from turning into kitchen waste or scrap food and give more channels to give priority to deal with the oversupply of food.

The definitions of surplus food and food waste have always been confused [9]. Surplus food is defined as the production of edible food for retail and service, but due to some factors, it cannot be consumed by customers; and waste food is food that is no longer suitable for human consumption [10].

Hawkes & Webster [11] indicated the surplus food is classified into the following 4 types:

- (1) Unprofitable agricultural products: The selling price of overproduction is lower than the cost of harvesting and transportation.
- (2) Processed food that is not perishable: Processed and packaged food is approaching the expiration date.
- (3) Perishable fresh food: fresh vegetables, fruits and meat, which are close to the expiration date.
- (4) Perishable food preparation: such as restaurant meals and cake leftovers.

### **Overproduction**

It is easy to understand literally, over production means that the supply of production capacity exceeds the demand, and there is a certain amount of idleness in the supply capacity. The production of agricultural products is seasonal and regional. Therefore, when it is abundant, it often causes oversupply.

According to feasibility analysis of planned production of agricultural products [12], the main reasons for Taiwan's overproduction of agricultural products are divided into the following 5 categories:

- (1) In a market economy, farmers have the right to make production decisions. The government cannot force farmers to allocate the use of their production resources, but can only guide farmers in production according to planned goals.
- (2) The policies incentives are weak, the economic incentives affect farmers' production decisions; other factors such as production habits are also important considerations. Coupled with the small scale of farmers' operations, it is not easy to guide the implementation of planned production.
- (3) The production volume of agricultural products is greatly affected by the climate, and there is considerable uncertainty in the unit output.
- (4) The price elasticity of supply and demand of agricultural products is low, and the price is easy to fluctuate.
- (5) The response time of production to price is delayed, and output and price fluctuate in a reverse cycle.

### **Innovative Business Model**

The term "business model" first appeared in 1957 [13]. Ostrowalder & Pigneur [14] indicated that business model is a way to describe how an organization creates value, delivers it to customers, and makes money from it. They also proposed 9 block analysis model: (1) value proposition (VP); (2) target customer (CS); (3) channels (CH); (4) customer relationships (CR); (5) key partners (KP); (6) key activities (KA); (7) key resources (KR); (8) cost structure (CS); and (9) revenue streams (RS).

### **3. RESULT AND DISCUSSION**

The present study proposes an entrepreneurial model with "prosperous food" as its value proposition. Change the subconscious belief of consumers in the past that "surplus food" is equal to expired or immediate products. It is the positive meaning of the abundant harvest in the current season. The surplus is due to the bumper harvest, which means that the climate of this year is suitable. It is a lifestyle that conforms to nature and environmental protection.

The direction of entrepreneurship practice proposed in this plan is as follows:

- (1) Prosperous restaurant: use bumper harvest fruits and vegetables as ingredients, and operate a no menu dishes mode. And the middle-aged and senior-aged as service staff. The store also sells bumper harvest fruits and vegetables.
- (2) Prosperous vegetable and fruit market: once a month as a principle, the bumper harvest fruit and vegetable market will be organized and sold directly by the farm owner.
- (3) Prosperous fruit farm experience: on the principle of once a month, distinguish the experience activities of harvesting bumper harvest fruits and vegetables, and guide consumers to the bumper harvest production areas for consumption.
- (4) Processed products of prosperous food: secondary processing of excess or about to expire fruits and vegetables, and put them in restaurants and online sales.

Based on this entrepreneurial connotation, analysis of its advantages and disadvantages, competitive analysis and establishment of innovative business models are as follows:

## **SWOT Analysis of the Business Model**

SWOT analysis is an analysis method of enterprise competition situation and one of the basic analysis methods of marketing. By evaluating its own strengths, weaknesses, opportunities and threats in external competition, it is used to conduct in-depth and comprehensive analysis and positioning of competitive advantages before formulating development strategies. The SWOT analysis of the business model is shown as follow:

- (1) Strengths: (s1) transform the restaurant's bumper harvest fruits and vegetables into a physical store experience. (s2) combine the re-use mechanism of middle-aged and senior-age retired manpower. (s3) environmental protection as the theme, to gain more consumer recognition and support. (s4) become a Tainan restaurant with the theme of environmental protection and bumper harvest fruits and vegetables. (s5) as the first market and farm experience in Tainan that regularly holds the topic of fruit and vegetable production. (s6) the price of rich fruits and vegetables is lower, and the cost of food materials can be reduced.
- (2) Opportunities: (o1) the world values the trend of environmental protection and protecting the earth. (o2) consumers' awareness of environmental protection has increased. (o3) combine online and offline marketing. (o4) organize events from time to time in conjunction with festivals to attract attention. (o5) the government promotes entrepreneurial plans, which is conducive to obtaining entrepreneurial resources.
- (3) Weaknesses: (w1) there are limited varieties of fruits and vegetables in season, so you need to design various menus to attract customers. (w2) if the food cannot be sold within a limited time, it will cause surplus food trouble again. (w3) high transportation cost and high cost. (w4) dried fruit food requires more production processes and takes a long time.
- (4) Threats: (t1) it need takes a lot of time to change consumer perceptions. (t2) newly created brands have low awareness and trust. (t3) the cooperation degree of the manufacturer and the quality assurance of the product. (t4) consumers do not yet have a deep understanding of leftover food, and acceptance cannot be expanded immediately.

## **Competitive Analysis of the Business Model**

### *Competition among existing competitors*

The strength of existing competitors is divided into 5 types of item descriptions, which are the competitive structure of the industry, the scale and type of existing manufacturers, the product differentiation between existing manufacturers, cost conditions and exit barriers. The 5 types of competition among existing competitors are shown as follow:

- (1) Competitive structure of the industry: at present, people pay attention to health, and there are a large number of catering industry peers who focus on vegetable food.
- (2) Scale and type of existing manufacturers: the local vegetable based industry is a potential competitor.
- (3) Product differentiation between existing competitors: the business model is based on seasonal ingredients and has a unique sales model advantage.
- (4) Cost conditions: the equipment and technology require high costs for competitors to invest, and the entrepreneurial plan cooperates with farmers, and the cost is relatively low.
- (5) Exit barriers: competitors have high investment costs, and it is not easy to pay back after the investment.

### *New competitors enter*

The risk of new competitors entering is divided into five types of project conditions, namely, economies of scale, brand loyalty, product differentiation, customer switching costs, and government regulation. The 5 types of new competitors enter are shown as follow:

- (1) Economies of scale: hand-made pickled products and dried fruit foods are difficult to generate economies of scale except for foundries.
- (2) Brand loyalty: consumers have low brand loyalty to restaurants.
- (3) Product differentiation: the entrepreneurial plan proposes the use of hand-made preserved products and dried fruit foods by mother-in-law, and the use of seasonal prosperous fruits and vegetables as the main ingredients as the sales model and meal integration social issues, which are more difficult for new entrants to imitate.
- (4) Customer switching costs: the unit price of the meal is not high, and the customer switching cost is low.
- (5) Government regulation: the government strictly controls restaurant hygiene regulations, and new entrants must bear considerable risks.

### *Buyer's bargaining power*

The buyer's bargaining power is divided into two types of item descriptions, namely the buyer's switching cost and product similarity. The 2 types of buyer's bargaining power are shown as follow:

- (1) Buyer switching cost: there are many hand-made preserved products and dried fruit foods on the market, and there are many local vegetable restaurants. Consumers may also choose products from potential competitors, and the conversion cost of buyers is low.
- (2) Product similarity: the entrepreneurial plan proposes to use hand-made preserved products and dried fruit foods with mother-in-law as the main ingredients as the sales model and meal integration social issues, which is significantly different from other competitors.

### *Supplier's bargaining power*

The bargaining power of suppliers is divided into three types of item descriptions, namely, the supplier's provision of differentiated products, the cost of supplier switching, and the competitiveness of suppliers with each other. The 3 types of bargaining power of suppliers are shown as follow:

- (1) Suppliers provide differentiated products: When the suppliers are different, and the products of each manufacturer will be affected by various natural or thought factors that affect product quality.
- (2) Supplier switching costs: the cost of obtaining abundant food ingredients is low, and it is not easy to worry about too much cost fluctuations.
- (3) Suppliers are competitive with each other: the main ingredients obtained are excessive ingredients, and the threat to this business plan is low.

### *The threat of substitutes*

The threat of substitutes is divided into three types of item descriptions, namely, the type of substitutes, the switching cost of buyers, and the degree of consumer preference for substitutes.

The 3 types of the threat of substitutes are shown as follow:

- (1) Substitute type: the restaurant has a low threshold for starting a business and is easy to be replaced.
- (2) Buyer switching cost: the entrepreneurial plan proposes a restaurant that uses hand-made preserved products and dried fruit foods by mother-in-law and uses seasonal fruits and vegetables as the main ingredients, combined with online shopping websites as the innovative concept. Currently, there is no such type of practice in the market, there is no problem of consumer switching.
- (3) Consumer preference for alternatives: at present, there are no restaurants in Tainan city that use seasonal fruits and vegetables as the main ingredients, so the threat of preference for alternatives is relatively low.

### **Business Model Description**

The business model of this entrepreneurial plan adopts the business model theory proposed by Osterwalder & Pigneur (2010), and shows the company's logic of making money through 9 components, including: target customer, value proposition, channel, customer relationship, revenue stream, key resources, key activities, key partners and cost structure. The business model is described as follows:

- (1) Target customer: set as a middle-to-high income group with stable income, while responding to the concept of environmental protection and a group with strong awareness of environmental protection and ecology, through social network marketing, attract more young people, so the target group is set at 40 to 70 years old.
- (2) Value proposition: Let farmers to reduce the losses caused by the over-heavy period, and allow the grain to be effectively used and implemented in daily life.
- (3) Channel: mainly for physical stores as an experience, this business plan is planned to be the first Shengshi theme restaurant to be established in Xinying District, Tainan City in the first year. Its purpose is to create a brand image to connect with government agencies. Under the promotion of environmental protection awareness, a group of supporting main customers has been developed first.
- (4) Customer relationship: connecting online platforms to deliver brand stories and ideas, and through the promotion of the market, thereby enhancing consumers' sense of cultural identity with the brand.
- (5) Revenue stream: The main revenue is from restaurant, delivery and sales revenue from online shopping platform operations. In addition, it is income from activities related to market and farming experience.
- (6) Key resources: restaurant sales venue, sales venues for schools and organizations, farmer groups, and government entrepreneurship project subsidy.
- (7) Key activities: the business plan will cooperate with middle-aged and senior retirees to produce online sales products, attract consumers to connect to the community to promote punch-in when dining or shopping, attracting the attention of more consumer groups, and handle regular bazaar activities.
- (8) Key partners: Kunshan University of Science and Technology, Agricultural and Food Cooperatives of the Council of Agriculture, farmers, senior citizens and retirees.
- (9) Cost structure: equipment cost, cost of goods sold, and operating expenses.

## **Company Profile**

The company mission, vision, values of the entrepreneurial plan are set as follows:

- (1) Company name: "Popo's" prosperous restaurant.
- (2) Mission: analyse food depletion from the food supply chain. During the production stage, crops may be scrapped due to insect pests or animal bites, or they may suffer damage and cracks in appearance due to adverse weather effects. In addition, there is another kind of cropping due to cropping. As a result of overproduction, these crops will be used as the main source of ingredients for restaurants to reduce food waste.
- (3) Vision: cooperate with various agencies, schools and associations to promote the concept of prosperous food and continue to eat. Through the abundance of commodities, learn the ancient people's methods of preserving food to continue the value of food, so that the pollution of the earth environment can be reduced, and the quality of people's life can also be improved. Promote environmental protection and love the earth.
- (4) Values: make use of the shopping experience of prosperous food and continue food, combined with creative cuisine, to enhance the food to the highest utilization value, through the bright and interesting dining environment of the restaurant, the warmth of the community can be reproduced, and it will become a warm city for food.

## **Brand Story**

In the past few years when the founder was working in the bakery industry, she saw that the off-shelf products were thrown into the trash cans mercilessly. Every time she feels heart hurt. She felt that the farmers and the workers' efforts were wasted in such a way, and it was very heartache. So began to pay attention to the status of prosperous food. After following up, she found that the prosperous food situation around the world has been deteriorating. Seeing such a situation, she also hopes that she can use her little power to bring a little strength to the society for this problem of food and solve the problems of farmers. Worries and reduce social pollution, she also hopes that through this idea, she can create a prosperous food restaurant that will provide everyone with food and clothing and at the same time allow more people to pay attention to such issues and work together to improve.

## **Logo Design**

Popo's means the Chinese translation of mother-in-law. When the founder was a child, she saw the elders at home using the remaining vegetables and fruits to preserve the food by pickling, freezing, and drying. Up to now, the small dishes at home are still made by my mother. Therefore, in the process of establishing this restaurant, she wanted to bring mother-in-law's concept of cherishing food into the restaurant. The two ladies' logos on the trademark also represent mother-in-law and mother respectively. This business plan hopes to convey the attitude of mother-in-law to cherish food to everyone while cherishing food and caring about prosperous food. The brand logo was shows as Figure 1.





**Figure 1.** The Brand Logo of the Prosperous Restaurant

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

This research provides a practical business plan based on the construction of an innovative business model that combines the overproduction of agricultural products by farmers, and applies them to healthy tastes for the purpose of intervening in people's diet and life, and introducing people's awareness of environmental protection with approachable catering. The promotion of food, so that the participating public can obtain healthy and high-quality food, and implement the promotion of the food economy. Breaking out of the traditional entrepreneurial model and introducing innovative business model construction also allows this plan to have a clearer goal and direction to implement.

The core value of this research is to establish a new brand cognition for prosperous food, revise the concept of excess to positive excess, and replace the surplus and second hand of "surplus food" with the new positive meaning into "prosperous". Build a positive brand impression, in order to enhance the wider acceptance of consumers.

Through this research to promote the integration of prosperous restaurants and farmers, therefore, small and beautiful restaurants can encourage young people to start up their own businesses.

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