Environmental analysis and monitoring for recreational farms in Taiwan

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Abstract. The rapid growth of recreational farms and leisure industry has fiercely faced competitive in a Taiwan’s market to achieve business development sustainability trends. Effective business development strategy has become a key of the business performance management to help develop and implement growth opportunities. Recreational farms have functional products, culture, and natural resources as essential elements for the business development of local cuisine. The purpose of this study is, based on the SWOT analysis, to understand the current situation of catering business in recreational farms in Taiwan and to analyze the trends in development to discover how to operate local food restaurant business in recreational farms successfully and create long-term value for a business from customers, markets, and related parties. This research collected a total of 300 questionnaires from recreational farm tourists and excellent recreational farm entrepreneurs, as well as on-site staffs in an outstanding recreational farm. The results of this study provided a reference and guidelines of trends in development for the entrepreneurs to create a modern niche market.

1. Introduction
In the traditional agriculture, recreational agriculture has increasingly become an important part of modern tourism industry. Taiwan has exerted a new direction for agricultural development. To implement the overall tourism and promote the agricultural tourism, in recent years, the recreational agriculture-related activities have been combined with the localities to attract tourists and generate more consumption of raw materials to sustain Taiwanese lives [1]. Other than the benefits, it is expected that the agricultural output value will increase the prosperity of rural society. According to the recreational farm survey of Council of Agriculture, Executive Yuan R.O.C. (hereafter referred to as the COA), there are 1,244 recreational farms in Taiwan and 262 licensed visitors at the end of 2012. According to the statistics, the total number of tourists visiting recreational farm increased from 20 million people in 2008 to 959 million people in 2013; and foreign tourists increased from 260 million people in 2008 to 60,000 million people in 2013 [2]. These trends showed the rapid development of recreational agriculture in Taiwan from 2008 to 2013, generating high incomes more than 10 billion yuan [3]. Despite the huge business opportunities, recreational farms are also facing the pressure of
fierce market competition. Recreational farm’s consumer satisfaction and willingness to return are still low. The business performance and the development of recreational farm business are not progressive and even some of them are closed [4]. Zhaolang (2009) pointed out that the current recreational farms with more agricultural production and marketing as the major business direction are lack of market-oriented ideas or marketing experience, being unable to establish marketing needs and marketing strategy, that is, the business should be based on cost, service quality, and so on to develop strategies and seek development [5]. Therefore, to further develop the recreational farms products and resources, in-depth understanding of consumer demand, combined with the characteristics of the service industry and the development of business strategy is necessary.

In the past, domestic and foreign tourists have paid more attention to local food [6], and consumers will experience local food as one of the important activities. According to Kivela and Crotts (2006) and Telfer and Wall (2000), the consumer experience has become a major basis on which visitors’ decision is made to visit a tourist area [7, 8], and local cuisine in the tourist area will directly enhance the visitor’s impression of the local area [9], which becomes a crucial factor in the management of local food and recreation industry. According to the statistics from the Department of Ministry of Economic Affairs, the catering industry in Taiwan grew significantly, with revenue of $407 billion in 2013, accounting for 19% of Taiwan’s GDP [10]. Tourism Bureau (2016) showed that the travel cost in the year of 2013 for meal of people in each domestic area accounted for 24.6%, a second place of all travel costs [11]. Therefore, as for the local food restaurants in recreational farms, entrepreneurs should find strategy for the development opportunity, that is, recreational farm entrepreneurs need to observe and understand the customer value. How the business and consumer values, and the relationships between the two which have had an impact on the consumption is worthy of discussion. When the two variables are consistent, it may lead to increased investment [12]. Based on the importance of reliable performance of the local food restaurants in recreational farm in Taiwan, the purpose of this study is to analyze the business performance of local food restaurants in recreational farms based on an informed consumer value on a local food restaurant and related bodies to understand how to operate local food restaurant business in recreational farms successfully and sustainably. Hopefully, the results will provide the guideline of strategic development and follow-up research on recreational farm entrepreneurs.

2. Literature review

Since 2010, the Department of Tourism has developed the integrated marketing program for food and beverage in Taiwan’s provinces. With a series of integrated marketing development, the one county, one food has become one of the key features of Taiwan’s tourism. In addition, the Taiwanese Food Series in conjunction with the 13 National Scenic Spots in Taiwan which has launched 27 tourist routes to a showcase of a variety of local food highlights. A series of national and local government marketing strategy has actively promoted the tourism resources based on the local culinary competition and other related activities, combined with sightseeing and food tours to experience the uniqueness of seasonal ingredients in each area of the tourist and leisure sites.

Sheldon and Fox (1988) explained that Japanese tourists believe that local cuisine will strongly affect the choice of tourist destinations more than Canadian and American tourists do, and 14% of Japanese tourists pointed out that local food is the important motive for visiting the tourist destination [14]. Tsai et al. (2015) concluded that organizational support was positively related to the work environment for motivation, procedural justice, knowledge sharing, as well as promotion [15]. The image of tourism destination had a positive effect on satisfaction, and willingness to visit and willingness to recommend, and was a key factor in the decision-making process and destination selection behavior [16, 17, 18]. Therefore, the use of local food culture markedly promotes tourists and tourist destination emotional links, strengthening the feelings of tourists on the destination image. Lee et al. (2015) supported that the three main aspects of peri-urban landscape are proposed as guidelines to maintain agro-ecosystem services in Taiwan [19]. The combination of local cuisine and the natural environment and landscape can create a unique regional image in the tourist market. In addition to
stimulating local agriculture, the local culture and cultural background can be further linked through local food activities, local cuisine and processed food sales to enhance and promote food quality [20, 21, 22]. Local food as a tourism destination resource can also be developed to promote tourism brand project. If the development of tourist destination is in accordance with regional or local food development strategy, a brand image and special identification features of products can be formed, increasing the motivation and decision to travel.

Leung (2005) studied the cognitive value of the location-based services (LBS) for tourism operators in New Zealand, based on the customer value theory of Sheth et al. [24]. The results presented a conceptual model of LBS cognitive value. The study found that the service is valuable for tourists, social values and emotional values. Turel et al. (2010) validated the acceptance of entertainment digital products with consumer value, etc., ranging from tangible products to invisible services and two important values are found: (1) practical value (e.g. parking lot) and (2) enjoyment value (e.g. clean environment, rapid service, and delicious meals) [25]. The result is consistent with the theory of consumer value proposed by Sheth et al. (1992) [24] and Liu (2016) [26] in which the consumer value plays a vital role on the choice of recreational farm consumption.

To sum up, a lot of research show that customer value is an important variable which can predict consumer behavior and improve customer satisfaction. Therefore, in-depth understanding of customer value on the choice of the local food restaurant in recreational farms to enhance customer spending provides a positive benefit and becomes a key factor in the successful operation of the industry (i.e., being able to improve the business and increase consumer spending and improve customer satisfaction). However, a limited number of research have been conducted on the consumer value based on the analysis of strengths, weaknesses, opportunities, and threats in local food restaurants of recreational farms in Taiwan. This study thus fills the gap using a SWOT-analysis to analyze the trends in development for a local food restaurant in recreational farms in Taiwan.

3. Research method
Good performances within a business are the consequence of right interaction of business management with its environment. This environment can be either an internal or external nature. The recognition of the internal strengths and weaknesses, as well as external opportunities and threats, takes place based on a study, also called a SWOT analysis. The SWOT stands for “strengths, weaknesses, opportunities, and threats” [27]. The information to be analyzed is derived from tourist part: recreational farm tourists and industry part: excellent recreational farm entrepreneurs and on-site staffs who have been issued by the COA as an outstanding farm. The total 300 questionnaires were used to collect the data in this research.

![Basic SWOT Analysis](image)

*Figure 1. Basic SWOT Analysis.*

Source: Smith (2016)
4. Results and discussions
The study found that to enhance the strengths for local food restaurants in recreational farms in Taiwan, the broad and delightful atmosphere and material outside the restaurants can increase the pleasure to the customers in the dining room. The attraction of a restaurant in leisure farms can be enhanced by the field view, nature ecology and environmental resources. Apparently, an abundant local food culture can be enhanced by its agricultural culture and living characteristics. A fresh and delicious food can be available by the easy-to-get raw materials near agricultural farms. Visitors can experience and learn something new from farms with plenty of culture and natural resource materials, and they can participate the activities of agricultural ecological experiences as details shown in table 1.

In terms of the weaknesses likely detriment to the business, far remote leisure farm may cause an inconvenience of transportation. There are poor management skills, and lacks in professional and innovative techniques and materials on service. The quality and quantity of agricultural products are extremely affected by its harvest seasons; therefore, the yearly tastes of dishes are not fixed in a restaurant of leisure farms. Because of specific harvest for agriculture products, there seems no need to wait longer for a dish periodically. Because of limited variation for agriculture materials, the dishes made of agricultural materials may become boring to the tourists. During the agricultural harvest period, the restaurants of leisure farms do not have enough employees. Insufficient employees in the leisure farms led to the promotion and sales capacity decreasing as details shown in table 1.

| Strengths (External, Positive) | Weaknesses (Internal, Negative) |
|-------------------------------|---------------------------------|
| 1. Pleasantness to the customers | 1. Lack of convenience of transportation |
| 2. Nice field’s view & nature ecology | 2. Poor skills & short of professional techniques |
| 3. Abundant local food culture | 3. Yearly tastes of dishes are not fixed |
| 4. Easy to get raw materials | 4. No need to wait longer for a dish periodically |
| 5. One can learn something new from farms | 5. Limited variation on agriculture materials |
| 6. One can participate the activities | 6. Scarce employee in the restaurants |
| 7. Not easy to enhance the promotion & sales | |

| Opportunities (External, Positive) | Threats (External, Negative) |
|-------------------------------------|-----------------------------|
| 1. Create self-characteristics & logo’s signs | 1. Difficult to show the different local products |
| 2. Relaxing dinning’s atmosphere | 2. Elasticity in a restaurant of leisure farm |
| 3. Agricultural culture and living activities | 3. Difficult to keep dishes on standard quality |
| 4. Fit dinning and healthy recreation | 4. Difficulty to keep service quality |
| 5. Use origin and background of food resources | 5. Too much traditional cooking techniques |
| 6. Utilize local agricultural resources | 6. Lacks competitive convenience strengthening |
| 7. Ecological raw materials and conventional | 7. Lack of innovative cuisine techniques |

For the opportunities of the business, entrepreneurs can create self-characteristics, identified logo signs, totemic and lucky material/animal to set up whole brand image. Having a pleasing/relaxing dinning atmosphere in a nature resources around restaurant can be a good asset. It is suggested to provide agricultural culture and living filled merry dining room, as well as keeping-fit dinning and healthy recreation activities filled with leisure activities by integrating agricultural culture and living materials. Using the origin and background of food resources as the materials depicting interesting agricultural educational story or using eating-dominant and related activities can enhance the value of
leisure activities. To enhance the shopping desire, restaurants can utilize local agricultural resources and related products, recombining cooking, ecological raw materials and conventional culture to set up a modern food preparation method. Finally, it is creative to have good customers’ relationship in view of historical culture sense and ecological preservation as details shown in table 1.

Lastly, the threats can also be encountered due to the accessible transportation, convenient information and admirable exchange of agricultural products. It is hard to show the difference of local specific produce. Due to the regulations of agricultural land development, big amount of investment in capital and man-power, including the maintaining of production and environments was made, resulting in insufficient facilities. Due to the varying seasons and weathers, it seems difficult to keep dishes on standard quality level. Due to the remote place and not fixing staffs on job, there is a difficulty to keep service quality. Too much emphasis on traditional cooking techniques and tastes on dishes mostly were not favored by young customers. Nowadays, there is a lack of innovative cuisine techniques, materials and multiple dishes supplied because of fixing professional chefs on job in a remote place as detail shown in table 1.

5. Conclusions
To operate successfully within local food restaurant business in recreational farms, the entrepreneur must concentrate the trends in sustainability development on its strengths, while averting tendencies related to the business weaknesses. Responding to internal strengths and weaknesses is, therefore, an essential component of the strategic management process. However, success can only be achieved in this respect to the extent that one is familiar with the opportunities and threats, resulting from the external environment. This study empirically provides the understanding towards consumer values and experienced entrepreneurs or concerned bodies’ perceptions about the strategic development. The future research should be conducted on the formulation of strategic business model or implement other analyzing tools to seek an insight into the phenomenon.

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