



A case study on the planning and design of the pastoral complex -- Taking Tony's Farm in Chengdu as an example

Xinwen Cui^{1st,a*}, Zihan Liu^{1st,b}, Yunyang Han^{2,c}

^aChina Agricultural University, Public service management, Beijing, 100080, China

^bChina Agricultural University, Agronomy College of Agronomy and Biotechnology, Beijing, 100080, China

^cChina Agricultural University and Oklahoma State University, Agricultural Economics and Management, International College, Beijing, 100080, China

*562322086@qq.com

Abstract. The No. 1 central document of the Central Committee of the Communist Party of China proposed that the implementation of the rural revitalization strategy should follow the general requirements of industrial prosperity, ecological livability, rural civilization, effective governance, and affluent life, so that agriculture can become a promising industry, the profession of being farmer can become attractive occupation, and rural areas can become a beautiful home to live and work in peace and contentment. At the present stage, the development of traditional agricultural industrial parks is no longer suitable for the requirements of industrial upgrading and overall development under the new situation. It is urgent to solve the problems of agricultural efficiency, farmers' income and rural greening in innovative ways. The pastoral complex is one of the better innovative models. Tony's Farm, located in Pidu District, Chengdu, is a feasible pastoral complex model. This paper uses data analysis, case analysis and literature reading analysis to creatively propose an optimization path to the above problems. The objective of the study is to enhance the competitiveness and tourism attraction of Tony Farm and to provide reference value for building a template of rural revitalization.

Keywords: Rural revitalization; Pastoral complex; Tony's Farm; Optimized path

1 Introduction

The rural revitalization strategy proposed by the Central Committee of the Communist Party of China underscores the importance of industrial prosperity, ecological livability, rural civilization, effective governance, and an affluent life in rural areas. The aim is to transform agriculture into a promising industry, make farming an attractive occupation, and create beautiful rural environments that foster contentment and peace. However, the development of traditional agricultural industrial parks no longer

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aligns with the evolving requirements of industrial upgrading and overall rural development in the new era. Innovative solutions are needed to address challenges related to agricultural efficiency, farmers' income, and rural greening. One such innovative model is the pastoral complex, exemplified by Tony's Farm in Pidou District, Chengdu. This paper employs data analysis, case analysis, and literature review to propose an optimization path to enhance the competitiveness and tourism appeal of Tony's Farm, offering valuable insights for rural revitalization efforts.

2 The case research background

The pastoral complex is a characteristic town and rural comprehensive development model that integrates modern agriculture, leisure tourism and pastoral communities. It is a sustainable model that conforms to the reform of rural supply-side structure and the development of new industries, and combines with the reform of rural property rights system to realize the modernization, new urbanization, and comprehensive socio-economic development of China's rural areas under the urban-rural integration pattern. In 2015, Pixian became one of the first 33 rural land reform pilot counties authorized by the Standing Committee of the National People's Congress and approved by the State Council. Under this background, Tony's Farm carries out scheme design.

From the perspective of geographical location, the site is connected with water. In 2014, it was approved to be a national 4A tourist attraction and honored as "the most beautiful water town in the west". However, the comprehensive design of farmland generally has its very special land layout, so from the land composition of the three villages, it can be seen that the dispersion and concentration of resources will become the key problem that puzzles such projects. With the continuous improvement of people's living standards, the traditional agricultural industrial park development ideas are no longer suitable for the requirements of industrial upgrading and overall development under the new situation. It is urgent to use innovative ways to solve the problems of agricultural efficiency, farmers' income and rural greening, and realize entrepreneurship and innovation in agricultural development. At the same time, in order to meet the public's requirements for a higher quality of leisure life and achieve a new experience of rural tourism and vacation, the need for the transformation and upgrading of leisure agriculture and rural tourism is also increasing. The rural complex is one of the better innovation models, and the Tony's Farm located in Baiyun Village, Pixian County, Chengdu is a more feasible rural complex model (Figure 1. The spatial zonation of Tony's Farm.). Relying on the development of high-end organic agriculture, the agricultural complex here can also become one of the few agricultural "entrepreneurship and innovation" parks in Chengdu.



Fig. 1. The spatial zonation of Tony's Farm.

From the existing research papers on pastoral complexes, most of the studies select a certain region as a case for qualitative research such as literature review, which lacks systematic research theories and research methods.

Today's studies mostly analyze a specific aspect of the field and garden complex in a certain region, lacking a systematic, comprehensive, and interdisciplinary analysis. For example, Ning Leng's[1] study on the study-based field complex in Dongzhuang Village, Guangzhou, roughly analyzed the development of the field complex in the area based on the study tour perspective, but did not make an in-depth discussion on the current situation and development trend of the complex in the future; according to Zhang, Shiwen[2], Zhagana in Yiwa, the ecological carbon footprint of the field complex has a decreasing trend. According to Zhang, Shiwen, the ecological carbon footprint of Zhagana in Yiwa has a decreasing trend, but the analysis is only related to the ecological and environmental protection category. Based on the SWOT analysis model in business analysis, this paper innovatively proposes a comprehensive and interdisciplinary analysis of the pros and cons of the current situation of the field complex and dialectically conducts a comprehensive case study.

This article uses the "SWOT analysis model" and the idea of system analysis to analyze and study the advantages, disadvantages, threats and other factors of Chengdu Duoli Farm, which has innovative significance. This article analyzes the advantages, disadvantages, opportunities, and threats of Duoli Farm.

3 The analysis of the case

3.1 The strengths of Tony's Farm

3.1.1 Modern agriculture.

In modern agriculture, Chengdu Tony's Farm relies on advanced organic technology to incubate advanced scientific and technological achievements in innovation, and provides entrepreneurship and innovation incubation services in the form of "entrepreneurship and innovation park". Tony's Farm, together with the Chinese Academy of Agricultural Sciences, Sichuan Agricultural University and Shanghai Organic Vegetable Engineering and Technology Research Center, has established the "Chengdu Tony Urban Agricultural Science and Technology Innovation Center", adopting the mode of "achievement transfer+innovation mentor+incubation base+service platform", which not only uses the previous organic agricultural technology to guide production, but also relies on professional teams to develop innovative technologies adapted to local conditions to carry out the incubation of agricultural scientific and technological achievements. Tony has also set up an agricultural entrepreneurship and innovation demonstration incubation park to better assist the incubation of agricultural innovative talents and projects[3]. Tony's Farm uses artesian irrigation, early water rotation and western Sichuan forest to carry out modern continuous field construction, radiating from the point to the surface and from the center to the outside, and cutting in with characteristic high-quality farmland, thus forming a "continuous" farmland model.[4] At the same time, Tony found the most suitable local crops with the highest economic value, such as rice, seasonal fruits, vegetables, rhizomes, etc. for cultivation. The farm uses a large number of organic greenhouses for planting, and all the land in the farm area has been organically improved and has obtained third-party organic certification. At the same time, Tony's Farm, with "organic" as its characteristic, adheres to the recycling of waste and the standard organic operation system.[5] For example, the use of high temperature and closed shed to kill pests and so on can truly achieve efficient and circular organic agriculture from the source, thus achieving better ecological and social benefits. As a demonstration and incubation park of Chengdu municipal and district agricultural entrepreneurship and innovation, Tony's Farm has built a nearly 100-acres organic ecological agricultural demonstration area, a 12000 square meter greenhouse and a sorting and packaging center, but this also requires further improvement of land. Tony's Farm, as the pilot of the "market entry reform" of rural collective construction land, the way to revitalize land resources is to enter the market of rural collective construction land; At the same time, the way of large capital entering rural construction also makes the successful landing of Tony's Farm in Chengdu more smooth from another perspective, and adopts a variety of government+enterprise "mixed social financing channels. Use the advantage of "big capital" to reduce factors such as long project cycle; In the later stage, Lux Hotel Management Group of France and Ping An Group of China were introduced to participate in the holding and obtain financial support; At the same time, according to the benefit model of "cooperatives+farmers+village collectives", villagers have realized the benefit sharing of farmers' shareholders through the trans-

fer of land and land acquisition. At the same time, Tony's Farm will connect the front and back ends, pay attention to improving the added value of agricultural products, and strengthen the brand and sales channels through one-stop service. In addition, it aims at the high-net-worth population in the city, and creates the brand image of "from the field to the table" by advocating a healthy lifestyle. At the same time, Tony actively embraces the Internet and uses the mode of "member direct sales+app (application software)+supermarket+project expansion" to get through the production and sales mode from online to offline, from field to table. Agricultural products with local characteristics also enter cities and families more efficiently through a set of standardized processes in Tony. [6]

3.1.2 Leisure tourism.

In terms of leisure tourism, on the basis of the development of agriculture, Tony's Farm has launched leisure tourism projects with different themes for different groups using local characteristic natural resources, geographical conditions and historical culture. The first is agricultural experience projects, such as picking and feeding livestock, so that tourists from cities can better enter the nature and experience the "Peach Blossom Land" style rural life; The other is reception groups, such as student groups, educational institutions, etc., which carry out popular science education activities on the basis of agricultural culture and learn soilless cultivation technology in smart greenhouses. Under the premise of "the basic farmland is not moved", the whole project will create a functional layout of "riverside sports and leisure belt, farmer community, organic ecological agriculture demonstration area, town center, tourism and leisure area, and citizen farm". Tony's Farm captures the "homesickness" and "Peach Blossom Land" complex of modern urbanites, deeply cultivates the pain points of the audience, and attracts tourists to experience rural scenery, organic vegetable planting, rural hotels and other characteristic tourism through diversified characteristic tourism projects, while spreading the concept of healthy life and farming culture, and displaying the diversity of local culture. In addition, Tony's Farm participated in the sales of targeted poverty alleviation agricultural products, opening up the commodity experience end and consumer end.

3.1.3 Pastoral community.

In terms of pastoral community, Tony's Farm plans to build 520000 square meters of new rural communities, 630000 square meters of family farms and tens of thousands of acres of organic ecological agriculture demonstration base. Tony is characterized by the scarce Chinese style farm building form, and penetrates the design concept of "Peach Blossom Garden" into the garden-style layout, highlighting the aesthetic Chinese style of architecture, and constructively proposes the mode of configuring farmland, that is, each household adopts the mode of "house, court, courtyard, garden, and field" to create a series of organic idyllic landscape communities with high market recognition

3.1.4 Summary of the strengths.

Tony's Farm, as one of the five successful cases of the national pastoral complex, has achieved the industrial integration of agriculture, culture and tourism, and health care to a certain extent, and has integrated the rich industrial forms of agricultural production, rural leisure, vacation and health care, and has enhanced the multiple value of the countryside. Taking Tony's Farm in Pidu District of Chengdu as an example, we can summarize the model for the development of "rural complex" based on this. First, focus on the core of modern agriculture, pay attention to the integrated development of primary, secondary and tertiary industries, innovate in tradition and return in innovation, Tradition; Second, improve the efficiency of industrial operation, adopt standardized and large-scale production, and create high-quality modern agricultural pastoral communities; Third, create brand effect, focus on the needs of the audience, create product positioning from the perspective of users, and improve the added value of agricultural products, which is conducive to driving local agriculture to better increase production and income.[7]

3.2 The weaknesses of Tony's Farm

Although Doli Farm, as an excellent rural complex and land reform demonstration site in Sichuan Province and even the whole country, still has some shortcomings after nearly 6 years of development. Finding these shortcomings can provide better reference paths and experimental choices for future rural complex construction. Firstly, the head office lacks operational and capital capabilities. On January 19, 2020, Dolly Farm was found to be unable to maintain operations, consumer account balances could not be withdrawn, and employees did not receive wages for three months. This also reflects the subsequent crisis in the operation of Capital Trust Group.

Secondly, the land transfer system is not sound, and the contradiction between the traditional land control system and the new business format still exists; [8] Thirdly, if large capital goes to the countryside, there may be serious situations of excluding small farmers and enclosure of land.

3.3 The opportunities of Tony's Farm

3.3.1 Pilot counties for land reform.

At the beginning of 2015, Pixian became one of the first 33 rural land reform pilot counties authorized by the Standing Committee of the National People's Congress and approved by the State Council. Duoli was granted 108.38 acres of collective land in Pidu District, which was jointly developed by Duoli, Ping'an, and Greentown.

In April 2020, the "Chengdu Pixian Rural Comprehensive reform Standardization Pilot" was successfully declared, and only three agricultural and rural standardization pilot projects in the province passed the approval of the National Standards Commission. The construction of the standardization pilot aims to integrate the concept and method of "standardization" into the whole chain of Pixian rural comprehensive reform, improve the standardization level of rural governance, help modernize the rural governance system and governance capacity, create a good harmonious and stable

social atmosphere, and build a new pattern of co-construction, co-governance and sharing. Using standardized means to try first and sum up pilot experience, the highly local characteristics of the "Pixian mode" rural governance system is booming in gestation.

3.3.2 Innovative strategies.

In 2017, the No. 1 central document of the Central Committee of the Communist Party of China clearly proposed that conditional rural construction should be supported. With farmers' cooperatives as the main carrier, farmers should fully participate in and benefit from the rural complex, which integrates circular agriculture, creative agriculture and farming experience, and pilot demonstration should be carried out through comprehensive agricultural development and other channels. As an important innovation strategy for the integration of three industries, the "rural complex" has obvious external opportunities in terms of policy.

3.4 The treats of Tony's Farm

The increasingly competitive environment in the fresh food market. [10] Duoli Farm relies on the "online direct sales" method to lock in consumers by binding membership cards and deliver fresh organic agricultural products to their doorstep. But looking at the fresh food market, China's fresh food e-commerce has developed into a trillion dollar market, with multiple fresh food e-commerce platforms such as "JD.com Home", "Hema Fresh", and "Dingdong Buying Vegetables" emerging, and diversified innovative sales methods such as "O2O Mode" and "Pre Home Mode" have been developed. As the digitalization process has become more and more important in our daily lives, during recent decades e-commerce has greatly increased in popularity, becoming increasingly used, therefore representing an extremely convenient alternative to traditional stores.[11] The increasingly fierce competition in the fresh market is undoubtedly a threat to Dolly Farm's expansion.

4 Conclusion

4.1 Case summary

As a feasible rural complex model, Tony Farm in Piddu District, Chengdu, has actively played the advantages of the new integrated industry compared with the traditional agricultural industry, effectively carried out the integrated development of primary, secondary and tertiary industries, and promoted the local agricultural development while spreading the concept of "green health", which is a development model that can be used for reference in the rural revitalization strategy in the new era.

4.2 Countermeasures for case problems

First, the government should improve relevant measures, seize the opportunity of rural innovation and development, and introduce a model conducive to the development of rural complex, so as to better help rural revitalization. We suggest that innovation policy should strengthen and enhance existing local innovation capacity in rural areas. Future research on the origins and nature of rural innovation in emerging enterprises could incorporate large sample data to provide additional insight.[12]; Second, enterprises should grasp the local development characteristics, seek rural innovative development opportunities according to local conditions, and ensure the main position of farmers, let farmers better participate in the process of rural revitalization and construction, and ensure sufficient interaction and relevance between stakeholders;[9] Third, strengthen the coordination and linkage between government and enterprises and play a supervisory role. In order to avoid the situation of "big capital" crowding out "small peasant" as much as possible, the local government and enterprises should achieve two-way linkage, strengthen and clarify the status of enterprises and project objectives in the implementation process, so as to better supervise enterprises to take root in the countryside and care about farmers, and explore a development path of rural complex with local style and Chinese characteristics in the joint construction.[13]

Based on the SWOT analysis and using systematic thinking, the following recommendations for the development season of Tony’s Farm can be derived (Figure 2. The spatial zonation of Tony’s Farm.):

SWOT Analysis

	Strengths (S)	Weaknesses (W)
Internal factors	1.Mature modern agriculture	1.Lacks of operational capabilities.
External factors	2.Abundant leisure tourism	2.Unsound land transfer system
	3.Suitable pastoral community	3.Possibilities of excluding small farmers
Opportunities (O)	SO:developmental strategy	WO:Twist transformation strategy
1.Pilot counties for land reform	Deepen the integration of the three industries strengthen the linkage between government and enterprises	Enhance the front-end operation capabilities
2.Innovative strategy		Combine the characteristics for development
Threats (T)	ST:Adjustment strategy	WT:Defensive strategy
Highly competitive environment in the fresh food market	innovate marketing mode Strengthen the combination of the industries	Consolidate the industrial foundation Forge the links between enterprises and government

Fig. 2. The SWOT analysis of the development of Tony’s Farm

Author Contributions

This paper was jointly completed by Xinwen Cui, Zihan Liu and Yunyang Han. Xinwen Cui and Zihan Liu has made equal efforts in the research of this topic, and their contribution to the paper is average. It is hereby explained.

References

1. Ning Leng. (2020). Analysis of the Development of Rural Complex with the Theme of Research, Study and Tourism-a Case Study of Guangzhou Dongzhuang Village. IEEASASM 10. 25236/ieesasm.2020.096
2. Zhang, Shiwen & Xie, Xiaoling. (2022). Exploration of Rural Agroforestry–Pastoral Complex Systems Based on Ecological Footprint*—Taking Zhagana in Yiwa Township as an Example. Sustainability. 14. 14442. 10.3390/su142114442.
3. Dong Cuiwen (2020). Research on the construction path of rural complex from the perspective of synergy theory, master's thesis, Southwest University of Finance and Economics. Available: <https://kns.cnki.net/KCMS/detail/detail.aspx?Dbname=CMFD202202&filename=1020371948.nh>.
4. He Yan, Chen Zimeng&Wang Qi (2019). Investigation and Research on the Pattern of the Garden Complex in Baiyun Village, Chengdu. Sichuan Cement (10), 71.
5. Yan Baohua, Chen Jie&Zhang Danping. (2016). Tony's Farm promotes the application of green prevention and control technology to produce organic vegetables. Shanghai Vegetable (01), 8-9.
6. Zhang Zhen, Yin Shengzhen. Optimization analysis of the network direct marketing mode of farm fresh products -- taking Tony's Farm as an example [J]. Logistics Engineering and Management, 2018,40 (12): 32-33,21. DOI: 10.3969/j.issn.1674-4993.2018.12.011.
7. Xie Xiaoqin. (2021). Research on rural revitalization in the context of capital going to the countryside -- field research based on the construction of "Tony's Farm" rural complex. Journal of Shanxi Agricultural University (Social Science Edition) (03), 1-8. doi: 10.13842/j.cnki.issn1671-816X.2021.03.001.
8. Li Mingxing&Wu Junfang. (2018). Research on the regulation of collective construction land entering the market and supplying land under the background of new business forms - based on the case study of the reform pilot in Pidu District, Chengdu. Journal of Fuyang Normal University (Social Science Edition) (06), 132-135. doi: 10.14096/j.cnki.cn34-1044/c.2018.06.23.
9. Feng Liang. (2020). Research on the pilot construction of "rural complex" from the perspective of stakeholders (master's degree thesis, Southwest University of Finance and Economics) <https://kns.cnki.net/KCMS/detail/detail.aspx?Dbname=CMFD202202&filename=1020371952.nh>.
10. Wang Xinyi, Xu Xiangyang. Research on the Current Situation and Future Trends of Fresh E-commerce Development [J]. Logistics Technology, 2022,45 (5): 81-83.
11. Petroșanu DanaMihaela, et al."E-Commerce Sales Revenues Forecasting by Means of Dynamically Designing, Developing and Validating a Directed Acyclic Graph (DAG) Network for Deep Learning." Electronics 11.18(2022). doi: 10.3390/ELECTRONICS11182940.

12. Hector K R. Patterns of rural innovation processes along agro-processing value chains: The case of Mopani district, South Africa[J]. African Journal of Science, Technology, Innovation and Development,2023,15(3).
13. Yao Jie, Cheng Zheyang, Chen Ziyang, Yang Tianjiao, Li Xiaohe. Progress in literature research on pastoral complexes in China [J]. Hubei Forestry Science and Technology, 2019,48 (4): 42-46

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