Application of a SWOT Quantitative Model in the Strategic Programming of Theme Park: A Case of China Dinosaur Land in Changzhou

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Abstract

As an important driving medium for the development of tourism industry, running theme park faces the severe competition pressure. Making effective strategic development programming has become an important guarantee, which makes a theme park obtain prior opportunities in the market competition. Therefore, strategic programming, which meets the theme park's actual developmental needs ought to be made. On this basis of this kind of strategic programming, firmly grasping opportunities, making good use of advantages, taking on challenges, promoting the connotation and changing the passive state to the active one is the inherent requirement of the theme park development.

Key words: SWOT quantitative model; Theme park; Strategic programming; China Dinosaur Land

INTRODUCTION

The word "strategy" first comes from the book *Corporate Strategy* written by the famous American economist Igor Ansoff. The book received high praise from managers and academics as soon as it became available in 1965. "Strategic programming", a guidance and important support of the modern strategic management, has extended from single application in the business field to many different fields in just 50 years. The management master Peter Drucker has pointed out that the key problem for the enterprise development is how to take the company's mission into rigorous consideration and how to make decisions about enterprise's future at present in order to achieve the purpose of balancing between varieties of requirements and rational allocation resources. With the continuous improvement of the strategic management theories and advancement of enterprises strategic practice, making an efficient, scientific and feasible strategic programming has given the perfect answer to the former. American scholar George Steiner in his book *Strategic Programming* has defined the strategic programming from four aspects: the futurity of current decision; the procedure of the target; the mission of attitude and life style; the structure of enterprises, business and functions at multi-levels (Zheng, Zhang, Meng & Zhou, 2007). Thus, through adjusting the existing unreasonable organization structure and operation mode, the enterprise strategic programming aims to realize the enterprise's sustainable and healthy development according to the internal and external enterprise's changing environment.

Theme park is a modern tourist destination, which satisfies the tourists' diversified recreational demands and selection by using creative traveling clues and planned activities (Dong, 2000). Compared with western developed countries' theme parks, although Chinese theme parks started late, it has developed rapidly. Since the 1990s, theme parks have been built all over the country and have become an important format in tourism industry today. In facing the severe competition, only by analyzing internal and external factors, grasping the opportunities, taking on challenges and programming problems about its long-term existence and development in scientific and comprehensive ways can theme parks get enough living space in the fierce market competition. In academic circles, research on strategies of theme parks mainly concentrate on the following aspects: the overall

strategy development trend of theme parks, the strategy discussions about the specific theme park's development, the theme park's brand and marketing strategy research, the theme park's sustainable development strategy research, etc. (Dong, 2005; Zeng, Wang, & Zhang, 2007; Yang, 2015); Sun & Wang, 2010)

Throughout the majority of existing research, from the perspective of research methods, although it has used some analysis tools, most of them adopted qualitative methods to establish a fuzzy strategic environment analysis model for the theme park; its conclusion has great subjectivity and experientialism. From the view of research background, the efficiency of the research is not enough and not combined with the new background of tourism industry. Therefore, the present article, on the basis of the SWOT quantitative model proposed in the article named *Application of a SWOT Quantitative Model in the Stratagem Programming of the Steel Structure Enterprises*, takes China Dinosaur Land in Changzhou as an empirical case to research how to develop the strategic programming of the theme park under the environment of domestic tourism industry development

1. INTERNAL AND EXTERNAL ENVIRONMENT ANYALYSIS OF CHINA DINOSAUR LAND IN CHANGZHOU

China Dinosaur Land in Changzhou has been regarded as "Oriental Jurassic". It was founded in 2000 with an area of 600 mu. It is a national 5A class tourism theme park and comes 11th in thousands of theme parks all over the Asia. In order to provide more comprehensive, systematic and scientific bases in the process of making strategic programming system, the analysis of its internal and external environment should be made in the first place.

1.1 External Environment

1.1.1 Policy Environment
Tourism industry received vigorously support of the national policy because it has a lot of advantages, such as low resources consumption, big driving coefficient, and more employment opportunities and so on. *Chinese Tourism Twelfth Five-year Development Plan* pointed out: at the end of "Twelfth Five-year", tourism will be preliminarily built into a strategic pillar industry of national economy and a modern service industry with which citizens are more satisfied. In 2014, *Several Suggestions to Promote Development and Reform of Tourism Industry*, made specific deployment about tourism industry's transformation and upgrading, standardization and development. Led by the national policy environment, In 2014, Jiangsu province regarded tourism industry as the leading of modern service industry and established the strategic targets of constructing "smooth and happy travel in Jiangsu" and constructing Jiangsu as a strong tourism province, and then issued

Suggestion on Comprehensive Constructing "Tour in Jiangsu" System and Promoting Implementation of Reform and Development in Tourism Industry. In addition, Changzhou municipal party committee and municipal government focuses on building tourism belt surrounding China Dinosaur Land to provide China Dinosaur Land support on land, propaganda, traffic, etc, in order to make full of China dinosaur land's leading effect. In 2012, Changzhou municipal committee propaganda department spent 40 million RMB on CCTV Morning News program advertising the theme slogan "creativity in Changzhou, beauty in Jiangsu" and "Splendid Jiangnan which dragon rises in Changzhou". In the video, China Dinosaur Land, which is the representative of Changzhou four key tourist destinations, shows the fantastic tourism image of Changzhou (Tang, 2014).

1.1.2 Economic Environment
In recent years, tourism industry as the key area of industry's development shows good development trend. According to the data releases by national tourism institute: Even in facing the economic malaise and other adverse circumstances, by 2015, the national tourism industry added value will be up to 2 trillion yuan, accounting for about 11% of the tertiary industry added value (Yang, 2013). China Dinosaur Land is located in Changzhou and lies on the heartland of the Yangtze River delta. Its degree of economic development level and traffic convenient both rank ahead nationally. Additionally, cities near Changzhou are all rich in tourism resources, which have formed a good trend with points leading to a line and lines into flat surfaces. The rapid growth of tourism economy and steady development of economic environment have provided a solid economic support for the development of China Dinosaur Land.

1.1.3 Social and Cultural Environments
Progress of the era has made a great influence on people's production mode, lifestyles and consumption patterns. With the promotion of people's consumption ability, the increase of free time and the diversity of moral values, people no longer tend to buy the "ordinary and common" stylized goods in the process of consumption, but prefer to consume goods with difference, innovation and better service quality. Theme park as the representative of tourism industry is a modern culture consumption product which can achieve "three features" (freshness, tenderness, satisfaction) through the provision of "three nature" (perception, understandability, participatory) and then is able to meet "three goals" (compensation, relief, stimulation) of tourists (Song & Sun, 2006), which meets psychological needs of modern people from multiple perspectives. Thus, it has a good foundation at social and cultural level for its own development.

1.1.4 Tourism Industry Environment
To explore the industry environment of China Dinosaur Land, we can use the Five Competitive Model proposed by Michael Porter from five angles as potential entrants,

substitutes, suppliers, tourists and existing theme parks to make an analysis of it. Firstly, compared with other industries, the entry barriers of the theme park are lower. There will be four or five large theme parks to be finished in the next three years only in Jiangsu. Although these theme parks are still potential entrants at present, based on geopolitical influence and the curiosity of tourists. Once these theme parks enter the market, they will be bound to bring a big punch to the China Dinosaur Land's market share. Secondly, China Dinosaur land is located in the Yangtze River delta region, in which it has two powerful substitutes, namely Global Animation Play Valley and Chunqiu Yancheng Theme Park in Changzhou alone. In addition to other substitutes with outstanding features or cultural characteristics in major tourist cities around like Suzhou, Nanjing, Wuxi and Zhenjiang, which is adjacent to Changzhou. China Dinosaur Land is facing a significant competitive pressure from substitutes. Thirdly, due to there are relatively few buyers and suppliers of the amusement facilities, under the effect of the market value rule, the price of facility products is relatively stable. Therefore, China Dinosaur Land has little room to bargain with suppliers. Fourthly, China Dinosaur Land adopted the policy of one ticket with fixed and unified price, tourists have no choice but to buy the ticket within the scope of the scenic spot provision. Fifthly, there are about 300 theme parks whose investment is beyond 50 million yuan in domestic tourism market at present. As a result, competition situation is fierce.

1.2 Internal Conditions

China Dinosaur Land has opened up a development road with its own characteristics in aspects of theme selection, brand publicity, financing means, derivatives development, new technology applying, internal management and enterprise culture construction. In theme selection, China Dinosaur Land combines local resource characteristics with tourists' novelty and special demand and focuses on the theme of "dinosaur" which has scientific and educational traits. In brand publicity, China Dinosaur Land take the three-step strategy: carrying out strategic cooperation with TV media and network platform to strengthen the brand awareness; cooperating with cartoon companies to create China's model of Disney; creating theme culture festival to promote brand image. In financing means, China Dinosaur Land and sponsors vigorously cooperate on the base of equality, respect and win-win and gradually expand the financing channels. In derivatives development, China Dinosaur Land pays attention to the independent innovation, more than 60% commodities in the park have got independent intellectual property rights. The number of products produced in independent research has reached 25 major categories, and the products influence is constantly expanded through the brand authorization model. In applying of new technology, by sounds and lights, film and television imaging, cartoon animation and multimedia network technology, "museum"

is combined with "amusement park" organically, the ancient fossils are made to "revived" again, and the whole process of dinosaurs' survival reproduction evolution and destruction can be shown vividly (Wang, 2010). In internal management, China Dinosaur Land adopts central system flat-styled management mode. It not only shortens the management chain effectively, optimizes the organization's structure, but also stimulates the initiative and creativity of employees effectively, improves the overall competitiveness of the theme park. In enterprise culture construction, China Dinosaur Land puts forward the guiding concept of "safety and quality come first, the brand value and benefit coexist", enhances the frequency of the facilities maintenance and the efficiency of facilities update, and promotes tourists' psychological satisfaction under the premise of ensuring their personal safety.

Based on the China Dinosaur Land's specific situation and industry characteristics, when internal analysis is made the method of balance scorecard can be used to establish competitiveness evaluation index including the four levels of financial, customers, internal business process and marketing ability for comprehensive evaluation. Marketing ability level aims to truly satisfy the evaluation object's principal features and is concluded out of replacing the original learning level. Among them, financial level including: operating income, return on capital, economic value added, financing ability; customers level including: tourists satisfaction, tourists retention, tourists acquisition rate, tourists profitability; internal business process level including: corporate leadership quality, staff quality, organization efficiency, image and reputation; marketing ability level including: producing competition ability, propaganda ability, new product development ability, marketing decision ability, quality of service.

2. SWOT QUANTITATIVE MODEL BUILDING METHODS

SWOT Quantitative Model is based on SWOT marketing analysis model, uses Delphi method and single factor fuzzy evaluation method to determine the study object's key strategic factors including opportunities, threats, strengths and weaknesses, then adopts the concept of dynamics and intensity applied mathematics tool to build strategic quadrilateral so as to set up systematic and quantitative method to determine strategic pattern and strategic intensity and eventually help decision makers formulate a high feasible and practical strategic programming's model. SWOT Quantitative Model building methods are as follows:

2.1 Determine the Strategic Key Factors

For determining the external strategic key factors of opportunity and threat, use Delphi expert evaluation method, hire several experts of related fields, provide them with a series of external factors, which is relevant to

the research object. Consult the experts for analysis and select these factors by Delphi method, classify the experts' opinion again and again, finally identify opportunity factors gather OPP={OPP$_1$, OPP$_2$, ... , OPP$_n$} and threat factors gather THR={THR$_1$, THR$_2$, ... , THR$_n$}.

For determining the internal strategic key factors of strength and weakness, the single factor fuzzy evaluation method is used. Set up the ability mark sheets of various factors. Ask several experts to give the evaluation value (0-10) and self-confident degree (hereinafter Conde for short) (0%-100%) for every reservation indicators respectively. Then use the formula $m_i^{(t)}=[(a_i^{(t1)}+a_i^{(t2)})/2] \times[(n_i^{(t1)}+n_i^{(t2)})/2]$ to calculate the final score, and get the single factor evaluation matrix T (Zhang, 2006). With t represents preparer number t, i represents factor number i, $m_i^{(t)}$ represents evaluation value of factor number i from preparer number t, $a_i^{(t1)}$ represents evaluation value's lower bound of factor number i from preparer number t, $a_i^{(t2)}$ represents evaluation value's higher bound of factor number i from preparer number t, $n_i^{(t1)}$ represents the evaluation value of Conde's lower bound of number t preparer to the number i factor, $n_i^{(t2)}$ represents the evaluation value of Conde's higher bound of number t preparer to the number i factor.

Division the value space [0, 10] of single factor evaluation value m into three interval [0, 3], (3, 5), [5, 10], respectively representative "disadvantage interval", "no advantage and disadvantage interval" and "advantage interval". The membership degree matrix R is worked out by calculating the specific factors in a certain range's membership, which is the ratio of total number of experts scores falling into the certain range with total number of contestants.

$$S=\begin{bmatrix} C_{11} & C_{12} & \cdots & C_{1n} \\ C_{21} & C_{22} & \cdots & C_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ C_{n1} & C_{n2} & \cdots & C_{nn} \end{bmatrix}$$, S meets the conditions: $C_{ij}=1/C_{ji}$ (i≠j); $C_{ij}=1$(i=j); $C_{ij}\cdot C_{jk}= C_{ik}$,

Repeatedly calculate each element's mean and deviation in the judgment matrix that every expert gives, until get the deviation scope that every expert's opinion tends to be more consistent. Then calculate the weight vector A=(a$_1$, a$_2$, ... , a$_n$)^t and the judgment matrix's biggest characteristic root λ$_{max}$. Finally check the consistency for the result of the judgment matrix, to make the random consistency ratio CR of the judgment matrix meet the condition less than or equal to 0.10.

Table 1
Elements Comparing Important Degree Scale

Scale	Implication
1	Compared factor i and j have the same importance
3	Compared factor i and j, i is more important than j
5	Compared factor i and j, i is obviously important than j
7	Compared factor i and j, i is highly important than j
9	Compared factor i and j, i is extremely important than j
2, 4	The intermediate value of adjacent judge 1-3, 3-5
6, 8	The intermediate value of adjacent judge 5-7, 7-9
Reciprocal	Compared factor i and j, they meet the condition $C_{ij}=1/C_{ji}$

In reality, the influence factors of research object is relatively complicated and the SWOT Quantitative Model only takes four factors into consideration. So when the factor evaluation values are more than 70% falling into the "advantage interval", this factor can considered to be the strength of research object, finally identify strength factors gather STR={STR$_1$, STR$_2$, ... , STR$_n$}and weakness factors gather WEA={WEA$_1$, WEA$_2$, ... , WEA$_n$}.

2.2 Determine the Estimates Intensity

In SWOT Quantitative Model, in order to get the influence degree of opportunities and threats, strengths and weaknesses to the research object respectively, adopts two mathematical concepts: estimates intensity and dynamics. Estimates intensity means the estimated factors' actual occurrence level. The process of the Delphi method assignment to the internal and external key strategic factors needs repeated research and discussions by experts. Estimates intensity is generally divided into seven grades as -3, -2, -1, 0, 1, 2, 3. Among them, the opportunities and strengths are expressed with positive values, the threats and weaknesses with negative values, the greater absolute value represents the greater intensity value of factor.

2.3 Relative Important Factor Calculation

Relative important factor calculation is to determine the factors weight coefficient. SWOT Quantitative Model combines the Delphi method and Analytic Hierarchy Process (AHP) to determine the relative important factor. Firstly, every expert is invited to compare each two strategic key factors in every layer according to the elements comparing important degree scale table (Table1). Through comparing, build the comparative judgment matrix S:

2.4 Calculate the Total Dynamics of Key Strategic Factors

Factor dynamic is the product between estimates intensity and relative importance, which expresses how much the factor promotes or hinders the study object' getting desired results. The computation formula of opportunity dynamics, threat dynamics, strength dynamics, weakness dynamics and total opportunity dynamics O, total threat dynamics T, total strength dynamics S, total weakness dynamics W are as follows:

$O_i=X_iY_i$, X_iY_i=1, 2, ... , n

$T_j=X_jY_j$, j=1, 2, ... , n

$S_k=X_kY_k$, k=1, 2, ... , n

$W_l=X_lY_l$, l=1, 2, ... , n

X and Y represent every element's estimates intensity and relative importance respectively.

$O=\Sigma O_i$, i=1, 2, ... , n

$T=\Sigma T_j$, j=1, 2, ... , n

$S=\Sigma S_k$, k=1, 2, ... , n

$W=\Sigma W_l$, l=1, 2, ... , n

2.5 Build Strategic Quadrangle

With total opportunity dynamics O, total threat dynamics T, total strength dynamics S and total weakness dynamics W four variables as half shaft build a coordinate system. Then according to the calculation results of research object on total opportunity dynamics O, total threat dynamics T, total strength dynamics S and total weakness dynamics W trace the point O', T', S' and W' in the coordinate system, finally determine the strategic quadrangle S'W'O'T'.

2.6 Determine the Strategic Position

To determine the research objects' strategic development pattern should according to the district of strategic quadrangle barycenter coordinate $P(X, Y)=P(\Sigma X_i/4, \Sigma Y_j/4)$. In order to make its result more intuitive, we can introduce strategic pattern azimuth θ, $\tan\theta=Y/X(0\leq\theta\leq2\pi)$. In the correspondence of strategy patterns direction and strategy patterns table (Table 2) (Zhang, 2006), we can find a specific strategic pattern belong to the study object. After the specific strategic pattern is determined, strategic intensity coefficient ρ can be exported through the concept of strategic positive intensity and negative intensity to be the basis of comprehensive analysis study object's strategic pattern implementation intensity. Their computation formula are as follows: $Z=O'\times S'$, $F=T'\times W'$, $\rho=Z/(Z+F)$, $\rho\epsilon[0, 1]$, Z and F represent strategic positive intensity and negative intensity respectively. Eventually form strategic vector (ρ, θ) with strategic pattern azimuth and strategic intensity coefficient.

Table 2
The Correspondence of Strategy Patterns Direction and Strategy Patterns

The first quadrant		The second quadrant		The third quadrant		The fourth quadrant	
Pioneering district		Striving district		Conservative district		Resistance district	
Pattern	Interval	Pattern	Interval	Pattern	Interval	Pattern	Interval
Power	$[0,\frac{\pi}{4})$	Enterprising	$[\frac{\pi}{2},\frac{3\pi}{4})$	Retreat	$[\pi,\frac{5\pi}{4})$	Adjustment	$[\frac{3\pi}{2},\frac{7\pi}{4})$
Opportunity	$[\frac{\pi}{4},\frac{\pi}{2})$	Adjustment	$[\frac{3\pi}{4},\pi)$	Avoid	$[\frac{5\pi}{4},\frac{3\pi}{2})$	Enterprising	$[\frac{7\pi}{4},2\pi)$

3. SWOT QUANTITATIVE MODEL EMPIRICAL APPLICATION

3.1 Determine the China Dinosaur Land's Strategic Key Factors

Based on the previous system analysis on external factors of China Dinosaur Land, hire ten experts in related fields, classify the experts' opinion again and again, finally identify opportunity factors gather OPP={OPP$_1$, OPP$_2$, ... , OPP$_n$} and threat factors gather THR={THR$_1$, THR$_2$, ... , THR$_n$}(Table 3).

For determining the internal strategic key factors of strength and weakness, use single factor fuzzy evaluation method. Marketing ability, for example, take the mark sheet's (Table 4) number into formula $m_i^{(t)}=[(a_i^{(t1)}+a_i^{(t2)})/2]\times[(n_i^{(t1)}+n_i^{(t2)})/2]$, $m_1^{(1)}=[(5+6)/2][(0.6+0.7)/2]=3.575$. Get other experts evaluation values about this factor in turn to form the marketing ability evaluation matrix T$_1$ and calculated membership degree matrix R$_1$. We can know in the marketing ability the propaganda ability and service quality of China Dinosaur Land are in the advantage interval, the marketing decision ability of China Dinosaur Land is in the disadvantage interval, the product competition ability and new product development ability of China Dinosaur Land are in the no advantage and no disadvantage interval. Based on this method obtain the China Dinosaur Land's strength and weakness factors in financial level, customer level and internal business processes level in turn. Finally determine the strength factors gather STR={STR$_1$, STR$_2$, ... , STR$_n$} and weakness factors gather WEA={WEA$_1$, WEA$_2$, ... , WEA$_n$} (Table 5).

Table 3
China Dinosaur Land's Strategic Key Factors of Opportunity and Threat

Opportunity	OPP$_1$ Good tourism industry background and policy support
	OPP$_2$ The economy of Changzhou is developed, the geographical position is superior
	OPP$_3$ The public leisure tourism consumption concept is improved
	OPP$_4$ Science and technology provide sustainable development force
Threat	THR$_1$ Competition pressure from the internal industry
	THR$_2$ The threat of substitutes
	THR$_3$ The threat of potential entrants

Table 4
China Dinosaur Land's Marketing Ability Mark Sheet

Marketing ability	Product competition ability		Propaganda ability		New product development ability		Marketing decision ability		Service quality	
	Score	Conde	Score	Conde	Score	Conde	Score	Conde	Score	Conde
1	5-6	60-70	7-8	75-85	6-7	60-70	3-4	70-80	7-8	80-90
2	4-5	70-80	6-7	70-80	5-6	70-80	4-5	65-75	6-7	80-90
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
10	5-6	80-90	7-8	80-90	3-4	70-80	5-6	70-80	6-7	70-80

$$T_1 = \begin{bmatrix} 3.575 & 6.000 & 4.225 & 2.625 & 6.375 \\ 3.375 & 4.875 & 4.125 & 3.150 & 5.525 \\ 4.125 & 3.600 & 3.850 & 2.975 & 7.125 \\ 3.825 & 5.250 & 4.400 & 2.625 & 5.850 \\ 2.925 & 5.525 & 4.875 & 2.925 & 6.750 \\ 5.625 & 5.850 & 4.225 & 3.825 & 5.625 \\ 4.875 & 4.675 & 5.850 & 2.625 & 4.875 \\ 3.825 & 6.375 & 3.575 & 3.575 & 5.250 \\ 4.550 & 5.850 & 4.550 & 2.925 & 6.000 \\ 4.675 & 6.375 & 2.625 & 4.125 & 4.875 \end{bmatrix}$$

$$R_1 = \begin{bmatrix} 0.0 & 0.9 & 0.1 \\ 0.0 & 0.3 & 0.7 \\ 0.1 & 0.8 & 0.1 \\ 0.6 & 0.4 & 0.0 \\ 0.0 & 0.2 & 0.8 \end{bmatrix}$$

Table 5
China Dinosaur Land's Strategic Key Factors of Strength and Weakness

Strength	STR_1 Propaganda ability is strong STR_2 High service quality and customer satisfaction STR_3 High return on capital STR_4 Good brand image and reputation STR_5 Corporate leadership management team is highly efficient
Weakness	WEA_1 Marketing decision ability is insufficient WEA_2 Organization efficiency is not high WEA_3 Tourism retention is relatively low WEA_4 Financing ability is not strong

3.2 Determine the China Dinosaur Land's Estimates Intensity

After ten experts according to the specific reality discussed and study repeatedly get the strategic key factors estimates intensity table of China Dinosaur Land (Table 6, Table 7).

Table 6
Opportunity and Threat Factors Estimates Intensity of China Dinosaur Land

Key factors of opportunity				Key factors of threat		
OPP_1	OPP_2	OPP_3	OPP_4	THR_1	THR_2	THR_3
3	3	2	3	-2	-2	-3

Table 7
Strength and Weakness Factors Estimates Intensity of China Dinosaur Land

Key factors of strength					Key factors of weakness			
STR_1	STR_2	STR_3	STR_4	STR_5	WEA_1	WEA_2	WEA_3	WEA_4
3	2	2	3	2	-1	-1	-2	-2

3.3 China Dinosaur Land's Relative Important Factor Calculation

All above strategic key factors of China Dinosaur Land regarded as the key factors which can influence its sustainable and healthy development (hereinafter DEV for short). Calculate the weight of each factor according to the resulting judgment matrix (from Table 8 to Table 13).

Table 8
The Judgment Matrix and Weight of OPP or THR to DEV

DEV	OPP	THR	OPP or THR weight of DEV
OPP	1	1	0.5
THR	1	1	0.5

Table9
The Judgment Matrix and Weight of Each Opportunity Factor to OPP

OPP	OPP_1	OPP_2	OPP_3	OPP_4	Each opportunity factor weight of OPP	Each opportunity factor weight of DEV
OPP_1	1	1/4	1/2	1/3	0.10	0.05
OPP_2	4	1	3	1/2	0.33	0.17
OPP_3	2	1/3	1	1/3	0.14	0.07
OPP_4	3	2	3	1	0.43	0.21

Note. λ=4.142, CI=0.142/3=0.047, CR=0.047/0.9=0.05≤0.10, judgment matrix has a satisfactory consistency.

Table 10
The Judgment Matrix and Weight of Each Threat Factor to THR

THR	THR_1	THR_2	THR_3	Each threat factor weight of THR	Each threat factor weight of DEV
THR_1	1	3	1/2	0.33	0.17
THR_2	1/3	1	1/3	0.14	0.07
THR_3	2	3	1	0.53	0.26

Note. λ=3.054, CI=0.054/2=0.027, CR=0.027/0.58=0.047≤0.10, judgment matrix has a satisfactory consistency.

Table 11
The Judgment Matrix and Weight of STR or WEA to DEV

DEV	STR	WEA	STR or WEA weight of DEV
STR	1	1	0.5
WEA	1	1	0.5

Table 12
The Judgment Matrix and Weight of Each Strength Factor to STRw

STR	STR_1	STR_2	STR_3	STR_4	STR_5	Each strength factor weight of STR	Each strength factor weight of DEV
STR_1	1	1/2	1/2	1/3	1/5	0.07	0.04
STR_2	2	1	2	1/2	1/4	0.15	0.08
STR_3	2	1/2	1	1/3	1/3	0.11	0.06
STR_4	3	2	3	1	1/2	0.25	0.12
STR_5	5	4	3	2	1	0.42	0.20

Note. $\lambda=5.113$, CI=0.113/4=0.028, CR=0.028/1.12=0.025≤0.10, judgment matrix has a satisfactory consistency.

Table 13
The Judgment Matrix and Weight of Each Weakness Factor to WEA

WEA	WEA_1	WEA_2	WEA_3	WEA_4	Each weakness factor weight of WEA	Each advantage factor weight of DEV
WEA_1	1	1/3	2	2	0.21	0.11
WEA_2	3	1	4	4	0.53	0.26
WEA_3	1/2	1/4	1	1/2	0.11	0.05
WEA_4	1/2	1/4	2	1	0.15	0.08

Note. $\lambda=4.083$, CI=0.083/3=0.0275, CR=0.0275/0.09=0.031≤0.10, judgment matrix has a satisfactory consistency.

3.4 Calculate the China Dinosaur Land's Total Dynamics of Key Strategic Factors

$O=\Sigma O_i =0.15+0.51+0.14+0.63=1.43$ (i=1...4)

$T=\Sigma T_j=-0.34-0.14-0.78=-1.26$ (j=1...3)

$S=\Sigma S_k =0.12+0.16+0.12+0.36+0.4=1.16$ (k=1...5)

$W=\Sigma W_l=-0.11-0.26-0.16-0.16=-0.63$ (l=1...4)

3.5 Build China Dinosaur Land's Strategic Quadrangle

According to the concrete numerical value of total opportunity dynamics O, total threat dynamics T, total strength dynamics S and total weakness dynamics W construct strategic quadrangle S'W'O'T' belongs to the China Dinosaur Land (Figure 1).
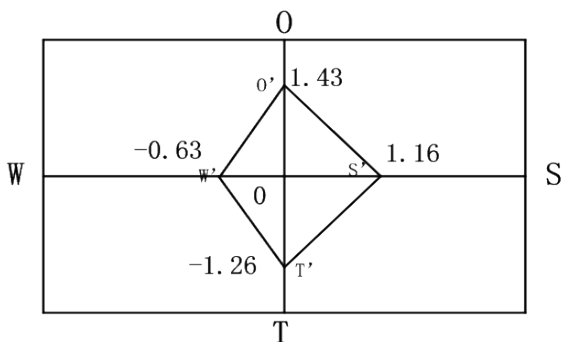

Figure 1
The Strategic Quadrangle S'W'O'T' of China Dinosaur Land

3.6 Determine the Strategic Position

To the strategic quadrangle S'W'O'T':

$P(X, Y)=P(\Sigma X_i/4, \Sigma Y_j/4)=(0.1325, 0.0425)$

$\theta=arctgY/X=arctg0.0425/0.1325\approx17.8°$

$Z=O'\times S'=1.43\times1.16=1.6588$

$F=T'\times W'=-1.26\times(-0.63)=0.7938$

$\rho=Z/(Z+F)=1.6588/(1.6588+0.7938)=0.676$

Therefore, it can be concluded that the strategic pattern and strategic intensity coordinates are $(\rho, \theta)=(0.676, 17.8°)$ (Figure 2).
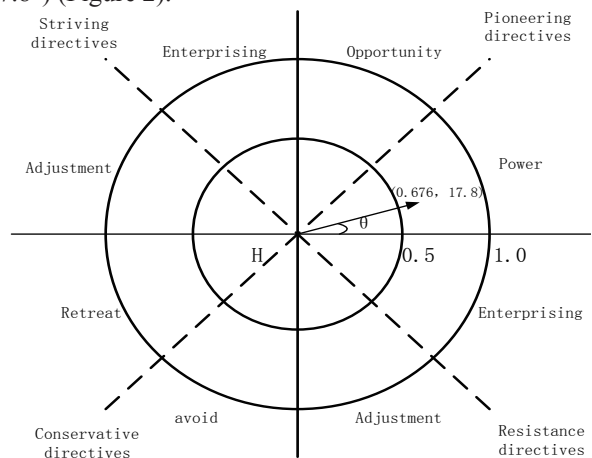

Figure 2
Strategic Pattern and Strategic Intensity Coordinate Indicator Diagram of China Dinosaur Land

CONCLUSION

The strategic pattern and strategic intensity coordinate of China Dinosaur Land from the SWOT Quantitative Model shows that China Dinosaur Land, located in power bearing domain of pioneering district, has good external

development opportunities and strong internal competitive advantages. At the same time, due to its strategic intensity coefficient is greater than 0.5, during strategic programming, decision makers should be brave enough to deepen and widen the strategy simultaneously. To be specific, the strategic programming of China Dinosaur Land in the future should include two aspects: one is to take advantage of a variety of opportunities provided by the social environment, make full use of its existing advantages, keep on learning the advanced experience and methods which the world outstanding theme parks apply in the process of making strategic programming, improve the service quality further, enhance the customer satisfaction and brand image and expand the overall size on the basis of depth exploration of the existing landscape's market potential; the other is to make a determined effort to take on the huge internal challenges from own industry and face threats from potential substitutes, keep the enormous driving force to improve the existing weaknesses, and move forward in the fierce competition market.

Thus, a good strategic programming is the premise of occupying a dominant position in the fierce market for Chinese theme parks. The process of using the SWOT Quantitative Model to get the strategic pattern and strategic intensity applicable for the future development of the China Dinosaur Land is a successful attempt to organically combine the comprehensiveness of qualitative analysis and quantitative analysis in the course of strategic programming for Chinese theme parks. Therefore, the understanding of strategic programming cannot be simply confined at institutional level. We should apply its guidance value to the process of the theme park's internal management and actual operation. The strategic programming which satisfies the theme park's actual needs should be made on the basis of the visualization quantitative analysis in order to help the theme park tightly grasp opportunities, make good use of advantages, take on challenges, change the passive state into the active one, and achieve Chinese theme parks' long-term development.

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