# Pattern and Strategy of Foreign Marketing under the Optimization of Economic Cost Based on Balance Function and Limit Function Assessment

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**Abstract.** With the opening of closed country constantly ,free trade area is expanding continually ,International trade and international investment are becoming more and more frequent ,Economic Globalization Market is coming out unprecedented opportunity .According to the present background of Economic Globalization,this article analysis foreign opportunities and challenges so that we can Use economic equilibrium function to explore foreign marketing model of optimization economic cost ,analyse deeply key factors of foreign marketing,consider economic cost and so on.On the basis of the above problems ,we discovery optimization foreign marketing strategy evaluation ,which Provide scientific basis and explore the path for studying theory and practicing operation In this field .

### Introduction

International marketing is a diplomatic multinational trade (marketing) process which is the individual and organization to meet the exchange for the purpose ,It requires a certain strategy determine and tactical implementation. besides it needs to analyse objectively the international environment and influence factors of the host country and marketing countries. So its characters are variability risk and complexity. Definition shows foreign marketing is a International market marketing actually it is a kind of aggressive marketing activity, it do not passively bear the influence of international marketing changes on their enterprising basis. In China it Increase gradually concerning International marketing mode and strategy research. For example, international marketing strategy new development of Tuyongshi economic globalization times which put forward international marketing strategy research conclusion by analysing deeply the relationship and competition pattern between marketing market; Dingjianyong come up with the research about the cultural differences of international marketing strategy, it is through the analysis of the cultural differences of marketing strategies at home and abroad he offer a proposal about that Chinese enterprises should make marketing strategy more localization; Chen Wei innovate and integrate International marketing channels in the new economy environment, through analysing the contemporary knowledge and information technology in the new economic Traditional international marketing is face to a series of environment conditions, challenges, accordingly he put forward innovation suggestions concerning marketing channel change; The theory of Wuhansong's development and innovation about international marketing strategy. In the background of economic globalization, it explains the marketing development, innovation and integration mode, he reached a conclusion ,which is in order to adapt the general trend of international marketing in the new economic era, marketing needs to constantly change strategy and mode; In 2009, During the Chinese market marketing innovation and development meeting. Liusiwei and Yanguoxiang simply analysed today's Chinese marketing. Content is very rich, there are research topics, research formula and research evolution about Chinese market marketing, In the reform and open policy 30 years the rapid development of the national economy, and marketing concept from being introduced to be recognized, until now get localization and diversity, besides the looks forward to the development trend of the future; the theory of

Lihongwei's Chinese enterprise internationalization management countermeasures, from the enterprise competitive ability to management system, personnel training and other aspects, he put forward Chinese enterprise's the management countermeasures into various links of international market competition.

## Today's opportunities and challenges of foreign marketing

# Foreign marketing present situation and opportunity analysis

International marketing has been given more and more attention, the main reason is the speed of globalization of the world economy development in the growing fast foreign marketing also appears in everyday life and affects our life, the development of the national economy can not be closed by isolated development mode. A country that does not participate in international trade and international investment will not have international marketing, but the consequences of the country's economic will slump, the national comprehensive strength and social development will decrease, successful international marketing can effectively enhance a country's capital attraction, accelerate economy development pace, raise domestic life quality, and improve the social environment. So the foreign marketing is the inevitable demand of the development of national economy.

The international marketing has been more and more important, trade between countries deeply affect the development of the state, enterprises and individuals. The international investment grow significantly. In recent years the world's major foreign direct investment specific statistics are shown in the following table.

Table 1 the direct aboard investment statistics of major parts of the world (Unit: million dollar)

Areas	Foreign direct investment Net		Direct investment stock	
	2009	2011	by 2010 foreign	
Sum	5652899	6881131	31721059	
Asia	4040759	4489046	22814597	
Africa	143887	211199	1304212	
Europe	335272	676019	1571031	
Latin America	732790	1053827	4387564	
North America	152193	262144	782926	
Oceania	247998	188896	860729	

(Source: World Bank Database )

As shown in Table 1, foreign direct investment of the major regional In the world has obvious growth, from 2000 to 2011, in Africa the rate of foreign direct investment amount increased to 147%; in the North American it increased to 172%; in Latin American it increased to 144%; in Europe it increased to 202%. The global investment reached a hitherto unknown scale, Between international large-scale investment has never been see before, in the international investment the proportion which is exporting and importing goods and services to GDP become larger, according to the International Monetary Fund IFS database data shows, the proportion which is exporting and importing goods and services to GDP has far higher than the average level of the world, specifically as shown in the following illustration:

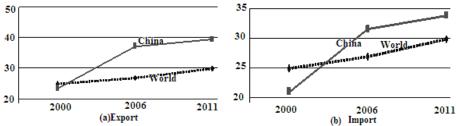


Fig 1 the accounting for the GDP proportion of export and import of goods and services

As shown in Figure 1, from 2000 to 2011 the proportion which is the export and import of goods and services to GDP is showing a rising trend, Chinese proportion is higher than the international level, It shows that after reforming and opening, market economy for Chinese development play a unstoppable action. From the Figure 1, we can see that closed and global connections have great influence for world and national economy, therefore the national policy is difficult to divide domestic economic activity with the international market, it is a good opportunity for the foreign marketing segment.

# The analysis of foreign marketing challenges

With the continuous development of globalization, the contaction between countries is more and more frequent, different culture, idea, structure, way of life, and behavior between countries have a blend, the customer of different international markets are very different for the products' level of confidence, attitude, standards and the consumers' tastes of Different parts. Foreign marketing is facing to a diversified market, it consist of potential religious beliefs of the market, social factors, policies and regulations, local climatic conditions, geographical factors, competitors and so on. In foreign marketing process enterprises need to face mutation, incoherent, natural, FN, and unexpected risk, therefore the external marketing is faced with severe challenges.

## Foreign marketing model potential analysis of economic cost optimization

Foreign marketing has intense competition and uncertain profitability, enterprises enter into international marketing to need target market analysis, in the marketing process. The internal and external factors influence economic cost, internal factors generally include enterprise idea, the goal of enterprise, the enterprise tenet, the enterprise research and development, production, marketing costs, product and industry characteristics, the external factors include general factors and objective special factors, specific include consumers, laws,regulations,competitors, financial environment and so on. these factors work together to cause different pricing mechanism and constraint for foreign marketing economic cost. If enterprises decided to enter the market, it must consider the importance of internal and external factors in the marketing decision-making , beyond that, enterprises need to have a target analysis before marketing, the specific process is as follows [6]:



Fig 2. the analysis progress of foreign marketing model potential of economic cost optimization As shown in Figure 2 shows, target potential analysis process of foreign marketing: preliminary attractive potential market screening; evaluating the industry marketing potential; potential analysis

of the enterprise marketing; getting marketing opportunities; Setting marketing target; Making foreign marketing strategy of economic cost optimization. Through selecting preliminarily, the enterprise should evaluate market potential, then they can make a scientific decision on foreign marketing according to these information, in the potential analysis of the enterprise marketing, after considering many influence factors, the results is concluded.  $\mu^{\rm M}$  is defined economic cost proportion in expenditure of spending,  $\bar{\tau}^{\rm M}$  is defined the influence factors of Weighted average, so we can get [7]:

$$\mu^{M} \equiv \sum_{h=1}^{H} \mu^{h} = 1 - \mu^{A}, \quad \overline{\tau}^{-M} \equiv \frac{\sum_{h} \mu^{h} \tau^{h}}{\mu^{M}}$$
(1)

In formula (1) ,market potential evaluation need to pay attention to two points, first of all in the analysis system of enterprise marketing potential, all the factors are in our analysis scope, the proportion of marketing cost in the whole foreign marketing economy is  $\mu^{\rm M}$ ; Secondly if transportation cost of different industry is different, so according to transportation costs of marketing product and the weighted average of trade cost of different manufactured goods , marketing costs index will change with distance changes.

Therefore, 
$$e^{\left[\sum_{h} \mu^{h} \tau^{h} - \mu^{\Lambda} \tau^{\Lambda}\right] r} = e^{\left[\mu^{M} \bar{\tau}^{-M} - \mu^{\Lambda} \tau^{\Lambda}\right] r}$$
, we can know:

Costing index between attractive potential market life and city life is different. The observation shows, market potential evaluation function of target market now becomes [8,9]:

$$\Omega^{h}(r) = e^{\sigma^{h}[(1-\mu^{M})\tau^{A} - \mu^{M}\tau^{M}]r} \left[ \left( \frac{1+\mu^{M}}{2} \right) e^{-(\sigma^{h} - 1)\tau^{h}r} + \psi^{h}(r, f) \left( \frac{1-\mu^{M}}{2} \right) e^{(\sigma^{h} - 1)\tau^{h}r} \right]$$
(2)

In which,

$$\psi^{h}(r,f) = 1 - \frac{\int_{0}^{r} e^{-\tau^{A}s} [1 - e^{-2(\sigma^{h} - 1)\tau^{h}(r - s)}] ds}{\int_{0}^{f} e^{-\tau^{A}s} ds}$$
(3)

Through the formula (1), (2) and (3), the equations is specific to a industry marketing evaluation of the target market, so elasticity of substitution and marketing costs were used respectively  $\sigma^h$  and  $\tau^h$ . But, expenditure share is not specific to a certain industry; These expenditure share gives income level of the city inside and outside, and add up all the income level of manufacturing industry. In formula (2), outside the square brackets means—the differences between the living cost of target market and the living cost in the city. Therefore, it includes consumption weighted average of manufacturing transportation cost( $\bar{\tau}^M$ ). Through making evaluation of the market potential, Scientifically setting marketing target, so as to make foreign marketing strategy of the economic cost optimization, it can have a better service for foreign marketing.

## Foreign marketing strategy evaluation of optimized economic cost

With the population growth, the international trend is expanding, external marketing challenge is bigger and bigger facing a complex international situation and strong competitors, enterprises need to make scientific evaluation, therefore enterprises need to evaluate foreign marketing strategy of optimized economic cost, from the whole foreign marketing strategies of optimized economic cost you can selected a sample, according to the sample data, you must integrate multiple regression equation of foreign marketing strategy, through the test of significance, then it is clear to know the significance of the foreign marketing strategy, finally ,to make a conclusion for the general regression relationship, you can inspect one marketing project.

$$H_0: \beta_1 = 0$$
;  $H_0: \beta_2 = 0$ ; .....;  $H_0: \beta_k = 0$   
 $H_1: \beta_1 \neq 0$   $H_1: \beta_2 \neq 0$   $H_1: \beta_k \neq 0$ 

Test statistics is still as follows[10-12]:

$$t = \frac{b_i - 0}{S_{b_i}}$$
 (i=1,2,···,k)

The condition to refuse null hypothesis is  $|t| > t_{n-k-1,a/2}$ , or according to the P value decided to reject or accept the null hypothesis.

For example, the enterprise sales rely on advertising investment of foreign marketing and competitors' sales return, the calculable result through the compute of single inspection is as follows:

Table 2 the calculable result

explaining variable	coefficient	Standard error	t	P value
Advertising	50.27	13.54	2.95	0.002
investment				
Competitors' sales	-2.9001	0.8668	-3.193	0.007

We know:  $t_{12,0.05} = 2.34$ . So no matter how we judge, from critical value to P value, the effect of advertising investment return of foreign marketing is significant, we have the same judge for rival sales. At the same time, we are studying that influencing functions' extreme value of foreign marketing potential will help us to assess economic cost of external marketing strategy. To establish the corresponding evaluation limit function of foreign marketing strategy is as follows [13]:

$$\overline{\Omega}^{h}(r) = K^{h} e^{\sigma^{h} [\rho^{h} (\tau^{A} + \tau^{h}) - \mu^{M} (\tau^{A} + \tau^{M})]r} 
+ (1 - K^{h}) e^{-\sigma^{h} [(1 - \mu^{M}) \rho^{h} \tau^{h} - \Omega_{r}^{h} (0) / \sigma^{h}]r}$$
(4)

In which,  $K^h$  is a constant which is decided by the following equation:

$$K^{h} = \frac{(1 - \mu^{M})\rho^{h}\tau^{h}}{(1 - \mu^{h})\rho^{h}\tau^{h} + \rho^{h}(\tau^{A} + \tau^{h}) - \mu^{M}(\tau^{A} + \overline{\tau}^{M}) - \Omega_{r}^{h}(0)/\sigma^{h}}$$
(5)

At the same time,  $\Omega_r^h(0)$  is a function[14]:  $d\Omega^h(0)/dr = \sigma^h[(1-\mu^M)\tau^A - \mu^M(\bar{\tau}^M + \rho^h\tau^h)]$ In formula (4), the changing trend is decided by the influence factors. If a certain influence

factors index is negative, so all the r > 0,  $\overline{\Omega}^h(r)$  are decreasing, besides, if all the influence meet the conditions, the optimization foreign marketing strategy has been stable. But, If a certain influence factors index is positive, then when N take a range of value, economic cost stability of optimization foreign marketing strategy will be broken, thus we must consider to build a new foreign marketing model.

#### Conclusion

With the connection of international marketization industrial economy are increasingly linked, Competition is becoming more and more fierce, the importance of foreign marketing has being pay attention increasingly, it is the current hot social concerns which are the identification of international marketing business mode and motivation, according to demand to make up his own marketing mode. After 30 years of Chinese reforming and opening, the level of economy has being rise rapidly, but international competitiveness is still weak, especially in foreign marketing aspects, we should be combined with practical experience to explore, from the economic cost reduction set out, through reforming deeply, in the time of developing rapidly international market economy, we should refine out economic cost optimization scheme of foreign marketing mode and strategy.

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