

# Efficient Construction Scheme of Software Service Outsourcing Industry

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**Abstract**—The prosperous development of the software and information service outsourcing industry brings opportunities for inland city to optimize industrial structure and change economic growth pattern. This paper takes Chongqing, which is located in open frontier and is national service outsourcing demonstration city as an example. Based on stepwise regression and ridge regression from the national view to study the influential factors to undertake service outsourcing since 1986, this paper analyzes the advantages and restricted factors of the development of service outsourcing industry in Chongqing. Industrial foundation, technology import and innovation, financing channels, the information public service platform, talents construction, development environment aspects, software and information service outsourcing industry development path will be mainly discussed.

**Index Terms**—service outsourcing industry, competitive advantages, software service outsourcing, stepwise regression, ridge regression.

## I. INTRODUCTION

The State Council determined Chongqing and other 20 cities to be the service outsourcing demonstration cities for China in March 2009, which would undertake international service outsourcing businesses and promote service outsourcing industry development pilot thoroughly[1]. In 2009, HP global software service center (GDCC) Chongqing branch, Honeywell technology development center (GES), Fujitsu system engineering Co. LTD, Chongqing branch, ORACLE Chongqing branch, Microsoft Chongqing innovation center, ZTE communications software R&D base and a number of renowned domestic and foreign software research and development institutions settled down in Chongqing, creating a prosperous atmosphere of service outsourcing industry in Chongqing [2]. Chongqing undertook service outsourcing contract in an amount of 30 million dollars in 1st 2010, which is 8 times higher than that in the corresponding period of last year. Besides, the actual execution amount exceeded 19 million dollars, which is 7 times higher compared with last year the corresponding period.

At present, the development of software outsourcing service in Chongqing is strongly supported by the Chongqing government. We aim at being the first-class base city of outsourcing service in China. It is estimated that until 2015, the number of personnel engaged in software development industry in Chongqing will exceed

0.2 million and the sales production value will exceed 10 billion RMB, in which 5 billion RMB will come from global software outsourcing service and 5 billion RMB will come from local and national demand of software.

Currently, the year by year increase in software and information service outsourcing industry in Chongqing, the industrial structure itself, has shown good momentum. With the support of municipal government on the development of software and information services outsourcing industry attention, software, reserve personnel, excellent security for financing system, everything is ready. In Chongqing is strong enough to warmly welcome domestic and foreign large-scale software and information service outsourcing enterprises or research institutions to locate in Chongqing.

Three regions of software and information services outsourcing plan, Chongqing software and information services outsourcing white papers, software services outsourcing Chongqing, competitive analysis, the basic construction of analysis, human resources analysis and base-building analysis, software and information in Chongqing Analysis of offshore outsourcing services in the shore, Chongqing software and information outsourcing industry investment and financing system analysis, software and information services programs and cutting-edge city of Chongqing, branding software and information services outsourcing overall investment programs coastal cities. Along the building, by 2020, the income scale will reach 250 billion Yuan, the scale of software and information service outsourcing will exceed 1,800 billion Yuan, and strive to enter the ranks of the top three cities across the country.

Chongqing actively undertakes service outsourcing to speed up the transformation of foreign trade growth pattern and improve the level of utilizing foreign investment. This is a strategic choice and turning point indicating significant shifts of industrial structure in Chongqing as the leading industry in depth [3]. Chongqing as the service outsourcing's demonstration city, expands the industrial scale year by year, optimizes the policy environment unceasingly and consummates the services structure day by day. At the same time, the rich human resources and the relatively prominent cost advantage create extremely favorable conditions for the development of service outsourcing industry. Location, cost advantage and government unprecedented attention make Chongqing service outsourcing industry's future

full of opportunities. But inescapably Chongqing information technology industry development is still in the primary stage [4]. The intensified professional competition between Chongqing and many domestic big cities cannot be avoided. Facing these challenges and opportunities, how to create the evaluation competition advantage index to undertake software service outsourcing according to regional economic characteristics, and give target-oriented approach of enhancing the ability and countermeasures suggestion, and help our city enterprise effectively participate in global market competition. This is the theoretical research and practical problem to be solved.

Couple of years back or we can say in early nineties, it was something that software development can be done with a Software Development Company solely located at one place. Now it is changed and different teams are working from different places on entire projects and never meet face-to-face. The fact that is still challenging is that it has not reduced the risks and complexity involved in successful project delivery in spite of reducing the frequent-flyer balance of today's developers.

Global Development and Delivery (GDD) is the most fascinating short term aspect that is consistently keeping managers to think of the same thing. Companies in software development using GDD as a competitive variable; Most IT organizations expect what benefits to extract from GDD. They usually are less sure about how to achieve them. Still, that hasn't affected the speed of GDD adoption. Frequently, the demand of software development forces IT organizations to take on GDD before they can establish strategies and platforms for success.

As the scope and scale of GDD efforts increase, so does the occurrence of failure. This pattern continues until frustration results in software development organizations concluding that GDD is more trouble than it's worth. Software development has always been a team sport. Geographical and organizational separations of project Software Development Company increases the complexity involved in achieving successful outcomes. Yet global flexibility is the core foundation for achieving advantages in cost, time, and quality. To be successful in GDD, you must protect the Software development Company in the aspect of application development outsourcing.

Well structured software development process framework gives GDD projects with Software development Company cohesion and direction without sacrificing the flexibility necessary for agile development. This helps teams to adopt a single, "common" process for all projects and provides teams with the ability to adopt the best methods and practices that are feasible, practical, and governed. The platform ties global teams together and reduces the risk of failure as global development initiatives become more complex. With a global process framework, you can easily codify lessons learned and achieve continuous global process improvement.

For example, in defining and implementing a software development project specification, there is a tendency to

believe that the more detailed and precise the specification is, the better the expected results from offshore software Development Company. However, in practice, collaboration and communication time between distributed teams on the clarification of unnecessary implementation specifics and style is time-consuming and contributes little to meeting the requirements of the end product. Implementation style is difficult to direct across GDD teams. Global methods and process should focus energy on managing and communicating the architecture and requirements. It shouldn't waste time to define the step-by-step directions for how distributed Software development Company members should do their jobs.

## II. EMPIRICAL ANALYSIS VARIOUS FACTORS

### A. Data Description

As a result that Chongqing has not related complete statistical data, the author carries on empirical analysis through the national service outsourcing and software outsourcing industry, and researches the influence factors of undertaking service outsourcing, which Chongqing develops software outsourcing industry can take for reference. Taking the main factors influence on the software service outsourcing into account, set econometric model are as follows:

$$\ln RSO = \beta_0 + \beta_1 \ln WAGE + \beta_2 \ln EDU + \beta_3 \ln DVP + \beta_4 \ln INT + \beta_5 \ln GDP + \mu \quad (1)$$

$$\ln SRSO = \beta_0 + \beta_1 \ln WAGE + \beta_2 \ln EDU + \beta_3 \ln DVP + \beta_4 \ln INT + \beta_5 \ln GDP + \mu \quad (2)$$

Among them, RSO expresses the scale of the service outsourcing to undertake, due to lack of the statistics data of service outsourcing in China at present, the domestic scholars generally replace with the service trade exports, this article has also adopted the similar processing method, and followed the definition of trade services to reject government service in WTO-relative regulations. In order to research the factors exerting influence on software outsourcing industry, the SRSO represents the scale of undertaking software service outsourcings. WAGE stands for the human resources cost in service industry, namely the service industry jobholders' average wages. EDU is the index to reflect the human resources quality, because the education level among the population is an important indicator of a country labor force quality, here with the number of students in the ordinary Colleges. DVP expressed the development level of service industry, with services industry in the proportion of the gross domestic product (GDP). INT represents infrastructure status, with the post and telecommunication industry basic investment among many indexes to reflect the infrastructure condition. GDP is the gRSOs domestic product to reflect the macroeconomic environment.

This article selects the samples from 1986 to 2010 years. Four indexes WAGE, EDU, DVP and GDP in the regression analysis are originated from the related "China Statistical Annual" and the statistical bulletin;

TABLE 1.  
THE INVESTIGATION OF RELATED SCHEMES

		RSO	SRSO	WAGE	EUD	DVP	INT	GDP
RSO	Pearson Correlation	1	.994(**)	-.350	.890(**)	.918(**)	.910(**)	.864(**)
	Sig. (1-tailed)		.000	.051	.000	.000	.000	.000
	N	23	23	23	23	23	23	23
SRSO	Pearson Correlation	.994(**)	1	.411(*)	.921(**)	.918(**)	.930(**)	.898(**)
	Sig. (1-tailed)	.000		.026	.000	.000	.000	.000
	N	23	23	23	23	23	23	23
WAGE	Pearson Correlation	-.350	-.411(*)	1	-.629(**)	-.360(*)	-.578(**)	-.617(**)
	Sig. (1-tailed)	.051	.026		.001	.046	.002	.001
	N	23	23	23	23	23	23	23
EUD	Pearson Correlation	.890(**)	.921(**)	-.629(**)	1	.810(**)	.958(**)	.973(**)
	Sig. (1-tailed)	.000	.000	.001		.000	.000	.000
	N	23	23	23	23	23	23	23
DVP	Pearson Correlation	.918(**)	.918(**)	-.360(*)	.810(**)	1	.852(**)	.781(**)
	Sig. (1-tailed)	.000	.000	.046	.000		.000	.000
	N	23	23	23	23	23	23	23
INT	Pearson Correlation	.910(**)	.930(**)	-.578(**)	.958(**)	.852(**)	1	.979(**)
	Sig. (1-tailed)	.000	.000	.002	.000	.000		.000
	N	23	23	23	23	23	23	23
GDP	Pearson Correlation	.864(**)	.898(**)	-.617(**)	.973(**)	.781(**)	.979(**)	1
	Sig. (1-tailed)	.000	.000	.001	.000	.000	.000	
	N	23	23	23	23	23	23	23

INT comes from "China Investment in the fixed assets Yearbook"; RSO originates from China's international balance of payment published by "Chinese Foreign Economical Trade Yearbook" and the National Foreign Exchange Bureau website (<http://www.safe.gov.cn>). Referring to the value quantity absolute value has been eliminated the influence of price changes by taking the related price index adjustment as in 1986 the fixed price.

*B. Research Methods*

Taking into account many variables in the model and multicollinearity problems, this article uses the stepwise regression and ridge regression methods to modify the model. Stepwise regression analysis [5] from few too many and gradually introduces the independent variables into the equation, but each step has to eliminate the explanatory variables which have no remarkable explanation strength, namely not be able to enter into the regression. The rest is statistically able to explain the

impact of current and capital account balance by the determinants of variables. Ridge regression [6] is a specialized biased estimation regression analysis for a total of linear data. It is actually an improved least squares method which gives up the unbiasedness of least squares, loses partial information and gives up part of the expense of accuracy for less but more realistic results the regression equation. Therefore, residual standard of ridge regression is larger than the deviation from least squares regression. But in that case, its tolerance of pathological data is far better than least squares method. An important issue about ridge regression analysis is to take the appropriate K value. As the ridge regression is biased estimation, K value is not too large. Generally speaking, the author hopes to reserve information and try to make K smaller. Therefore, different equations can be observed when K value changes. When the ridge trace is described in a steady state and no unreasonable increase in residual sum of squares symbols, then the K value shall be selected. The author uses SPSS 14.0 software to obtain

the following tests results of stepwise regression and ridge regression.

C. Stepwise Regression

In order to investigate the relationship between explanatory variables namely RSO and the independent variables, the author exerts Person Correlation and Sig. (1-tailed) - one-tailed t analyze the correlation coefficient between them. The results demonstrate that 5 variables integrated into the analysis besides DVP had extremely close contacting with the explanatory variables, and passed 5% significance test. Similarly, through analysis of the correlation coefficient between the explanatory variables namely SRSO and the independent variables, the author discovers that high relevance exists that indicates that explanatory variables the author selected are appropriate.

TABLE 2  
CORRELATIONS

\*\* Correlation is significant at the 0.01 level (1-tailed).  
\* Correlation is significant at the 0.05 level (1-tailed).

TABLE 3.  
VARIABLES ENTERED/REMOVED

Mode	Variables Entered	Variables Removed	Method
1	ln GDP		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100) .
2	ln WAGE		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100) .
3	lnINT		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100) .

a Dependent Variable: lnRSO

TABLE 4.  
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.994	.988	.987	10541.36071
2	.996	.992	.991	8659.06084
3	.997	.994	.993	7793.69270

a Predictors: ln RSO , ln GDP

b Predictors: ln RSO , ln GDP , ln WAGE

c Predictors: ln RSO , ln GDP , ln WAGE , ln INT

Variables Entered/Removed

Stepwise regression model first introduces GDP and then gradually introduces INT and EDU into the model. It shows that the three variables are closely linked with RSO.

Model Summary. Multiple correlation coefficient R = 0.997, coefficient of determination R2 = 0.994, Adjusted coefficient of determination R = 0.993, standard error of

estimate was 7793.69; this shows that the model has better goodness of fit.

ANOVA (analysis of variance):

F = 1039.648, P = 0.000, according to  $\alpha = 0.01$  level, ln GDP , ln WAGE , ln INT and ln RSO have the linear relation.

TABLE 5.  
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	188270308	1	188270308	1694.293	.000
	Residual	227.756	21	111120285.523		
	Total	233352599	22			
2	Regression	190603834	2	945521237	1261.042	.000
	Residual	530.295	20	26514.72		
	Total	149958669	22			
3	Regression	190603834	3	631499143	1039.648	.000
	Residual	950.826	19	50043.0		
	Total	115409127	22			

a Predictors: ln RSO , ln GDP

b Predictors: ln RSO , ln GDP , ln WAGE

c Predictors: ln RSO , ln GDP , ln WAGE , ln INT

d Dependent Variable: ln RSO

TABLE 6  
COEFFICIENTS

Model		Unstandardized Coefficients	Standard Error	Beta	t	Sig.
1	Constant	-6453.204	2548.882		-2.532	.019
	ln GDP	1.181	.029	.994	41.162	.000
2	Constant	1720.872	3223.529		.534	.599
	ln GDP	1.341	.054	1.129	25.023	.000
3	ln WAGE	-.749	.225	-.150	-3.335	.003
	Constant	-6657.256	4556.165		-1.461	.160
	ln GDP	1.262	.059	1.062	21.565	.000
	ln WAGE	-1.674	.437	-.336	-3.828	.001
	ln INT	.028	.012	.251	2.385	.028

a. Dependent Variable: ln RSO

Coefficients. After the T-test, P value of ln GDP , ln WAGE and ln INT is respectively 0.000, 0.001, 0.028, according to  $\alpha=0.05$  the level, has the remarkable significance.

Excluded variables. Leaning regression coefficient by re-test, P value is greater than 0.05 that cannot be introduced into the equation.

Through regression above shows that among five explanatory variables, only  $\ln GDP$ ,  $\ln WAGE$  and  $\ln INT$  three explanatory variables have a significant role on current account balance. The other two variables Services,  $\ln EDU$  and  $\ln DVP$  fail in t-test and are excluded from the model. After correction the Model (1), adjusted model is:

$$\ln RSO = -6657.256 + 1.262 \ln GDP - 1.674 \ln WAGE + 0.028 \ln INT$$

$$\begin{matrix} (-1.461) & (21.565) & (-3.828) & (2.385) \end{matrix} \quad (3)$$

$$R^2 = 0.994 \quad F = 1039.648$$

The standard model is :  $\ln RSO = 1.062 \ln GDP - 0.336 \ln WAGE + 0.251 \ln INT$  (4)

Revised model has good fit and all coefficients passes 5% significant test, so multicollinearity does not exist in the regression equation. However, the explanatory variables influence on current account balance is different.  $\ln GDP$  has the most influence on  $\ln RSO$  while  $\ln WAGE$  impact on  $\ln RSO$  is the opposite. In the context of holding other independent variables constant,  $\ln WAGE$  increases (decreases) per 1%,  $\ln RSO$  will on average decrease (increase) 0.336%.

**D. Ridge Regression**

To further test various factors that affect RSO by stepwise regression, we again use SPSS software to verify those factors by ridge regression. The result demonstrates: When K value is between 0.2 and 0.6, the regression coefficient tends to be stable. The article here takes  $K=0.4$ .

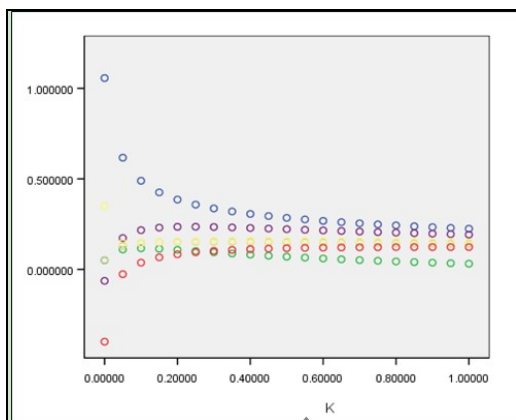


Fig. 1 The ridge trace of the regression coefficients when different Ling K parameters

The different between determination coefficients and regression coefficients are put together into the different curves in above figure. The curve is vividly called the ridge trace, which is the origin of the name ridge regression. When K value of ridge parameter is equal to 0.40, it is easy to see that the ridge trace stabilized the regression coefficient of the independent variables changing smoothly. The coefficient of determination  $R^2$  is quite big. Choosing  $K = 0.40$ , this article further test the results of ridge regression again as follows: the regression coefficients of many variables couldn't pass T-

test. This shows that not every variable can enter into the regression model.

$$\ln RSO = -9699.810 + 1.255 \ln GDP - 1.987 \ln WAGE + 0.040 \ln INT$$

$$\begin{matrix} (-2.016) & (13.789) & (-3.224) & (3.092) \end{matrix} \quad (5)$$

$$R^2 = 0.998 \quad F = 602.619$$

The standard model is :  $\ln RSO = 1.056 \ln GDP - 0.399 \ln WAGE + 0.350 \ln INT$  (6)

The conclusions are the same either using stepwise regression or ridge regression method. Among six assumed factors of current account balance, only the influence of  $\ln GDP$ ,  $\ln WAGE$  and  $\ln INT$  is the most obvious.  $\ln GDP$  and  $\ln INT$  have a positive impact on  $\ln RSO$ , whereas  $\ln WAGE$  has the reverse effect on  $\ln RSO$ . Holding other independent variables unchanged,  $\ln WAGE$  increases (decreases) per 1%,  $\ln RSO$  will on average decrease (increase) 0.399%, which is close in the proportion of the above 0.336 % derived by using stepwise regression.

Similarly we test the factors which affect  $\ln RSO$  by the ridge regression method. Through the estimated coefficient table and ridge trace, the author finds that regression trend tends to be stable when  $K = 0.30$ . The author further tests the results of ridge Regression when  $K = 0.30$  as follows:

$$\ln SRSO = -18860.14 + 1.231 \ln GDP - 6.673 \ln WAGE$$

$$\begin{matrix} (-2.190) & (2.598) & (-4.540) \end{matrix} \quad (7)$$

$$R^2 = 0.845 \quad F = 11.260$$

The standard model is :  $\ln SRSO = 1.532 \ln GDP - 1.335 \ln WAGE$  (8)

In the case of other variables unchanged, if  $\ln WAGE$  in this year increase (decrease) per 1%,  $\ln RSO$  will increase on average decrease (increase) 1.335%.

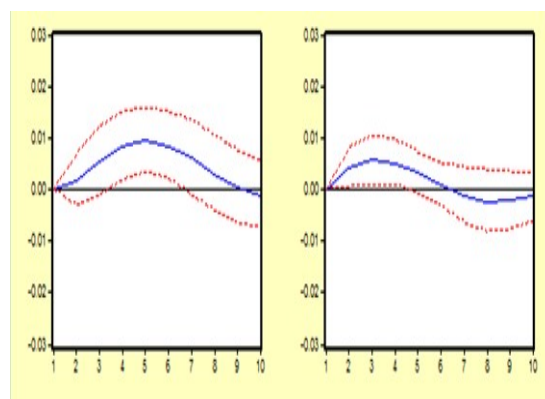


Fig 2. Responses of SRSO to GDP

This part of the econometric analysis verifies the theoretical analysis of influencing factors of undertaking service outsourcing in the preceding text. The estimated values of each explanatory variable coefficient are as the theory expected. Specifically, the scale of service outsourcing to undertake has a negative correlation with human resources cost (WAGE). On the contrary, the human resources quality (EDU), service industry level of development (DVP), the infrastructure conditions (INT) and the macroeconomic environment (GDP) presents

positive correlations with the scale of service outsourcing. China's low-cost human resource cost, perfect infrastructure and good macroeconomic environment are the favorable factors to attract the developed countries to outsource services in China. On the other hand, the human resources quality and the development level of services can also affect service outsourcing location choices, and our country is short in these aspects. Condition's improvement and enhancement in those aspects will have the positive influence on our country to undertake the service outsourcing.

### III. SUGGESTIONS

#### A. *Chongqing Special: New North Zone*

Service outsourcing is an important international service trade growth area, which has gradually become the priority industry with/ as the export-oriented economy expands. Meanwhile, Chongqing has built Chongqing New North Zone (CNNZ), Xiyong Software Park, and Yangchuan Software Park -- three major software service outsourcing industry parks [7]. Since 2002, the software industry average annual growth is above 40% in Chongqing; in 2009, Chongqing software industry achieved sales revenue 102.55 billion Yuan. In the department of commercial affairs and the software export contract registration system (including BPO) Chongqing service outsourcing export ranked 8<sup>th</sup> nationally. Software service outsourcing (ITO) is the most important part of the global service outsourcing industry. If Chongqing plans to create a modern service industry base and develops an electronic information industry, software service outsourcing is one of the indispensable rings [8].

Chongqing Software Industrial Center was established (in New North Zone, Liangjiang New Area on Sept. 18. After completion, it will form a ten-billion-class green industrial chain and help the area become an industrial gathering place for software and information service outsourcing in west China. With a total investment of 580 million Yuan, an area of 31,200 square meters and a total construction area of 138,000 square meters, Chongqing Software Industrial Center with an area of ... and con..., is expected to be completed in 2 years and bring 2.5 billion Yuan of annual sales revenue after fully going into operation. The software and information service outsourcing in the New North Zone had realized 18.41 billion Yuan of total income from Jan. to Aug. 2010, which is 45.2% higher than last year. In addition, the zone also gathers more than 300 software outsourcing and information service enterprises.

#### B. *Software Industrial Center Lays Foundation*

On May 16<sup>th</sup>, 2011, the Chongqing municipal government said they would increase the production of notebook computers and offshore database to develop a global industrial base, so that in the next 5 years, a global electronic information industry base with relevant output value over 1,500 billion Yuan can be built.

From a recently held strategic meeting, the Chongqing reporter was informed that the development of new

industries. Chongqing is in accordance with the idea of "driving machine, supporting the introduction of advanced technology and, developing headquarters and clearing house", research and development, to build Asia's largest notebook computer production base. At present, this message has been passed to HP, Acer, Asus and other multinational companies as leaders of the "3+6+200" industrial clusters.

According to the report, in the first 4 months of this year, Chongqing exported 1.979 million notebooks to Taiwan, which worth \$ 690,000,000. Peripherals, monitors, printers, flat panel TVs, other relative supporting industries, and raw materials supply base are accelerating the construction. 2015, west Wing comprehensive Free Trade Zone, bonded port area two. Formed 1 million units within the scale of production, 80% of the parts and materials for local support.

In addition, cloud computing service for the global electronic industrial park in Chongqing is under construction. This year, 400 billion in the International Cloud Computing Center Two Rivers?, and a total investment of 500 billion Yuan, the Chinese Academy of Sciences made "Godson" chip-based cloud computing industry base in the shore, one after another in the Two Rivers District, Jiangjin Zone is built. According to the plan, in the next 5 years, Chongqing will build the "China International Offshore cloud special management areas" to guide the global multinational companies, financial giants, securities service providers and other units assigned to large data processing needs, the formation of one million servers data processing capabilities. Meanwhile, the development of applications based software industry cluster, and actively develop software services outsourcing, software built into a key industrial base. Chongqing strives to build China's largest offshore development of data processing center, the output value of more than 50 billion Yuan before 2015.

#### C. *Service Outsourcing Provider to Chongqing Enterprises Weapon*

How to seize the opportunity in service outsourcing wave and take advantage of the development, is the most crucial and urgent question in Chongqing at present [9]. According to Chongqing oneself in the market, talents, cost, environment, policy, etc, Thanks to the Chongqing software service outsourcing makes unique competitive advantage. This includes as follows: the. How to make full use of Chongqing rich talent resources and perfect training system makes talent superiority. How to make use of Chongqing human resource costs below the more developed eastern region creates the cost advantage [10]. How to make use of Chongqing as Midwest hub city, the convenient traffic and the important strategic position makes environmental superiority. How to use the government force support on policy makes policy advantage, etc.

This paper's main research content focuses on what to make the Chongqing software service outsourcing be the competitive advantage strategy in five aspects. First, market advantages help Chongqing to be more competitive. Chongqing is an old industrial base and its

manufacture industry has rapidly developed. Software service outsourcing will form off shoring and outsourcing twin-engine drive pattern, which not only contains global outsourcing market but also includes China's onshore outsourcing [11]. The competitive advantage research which mainly includes promotion to undertake industrial transfer through external investments carries out investment promotion activities to provide the bilateral interactive platform for the capital and the project.

Secondly, the Chongqing can take an advantage of its abundant Talents. The union teaching between the colleges and universities help school students transfer majors and train their inter-disciplinary talent. Supporting various activities which can help to train subject conducts talent, training subject conducts talent practice activities, introducing a real project and simulating the real environment and operating rules make enterprise participate effectively in every link of talent training and improve the pertinence and practicability of the training process [12]. Establishing multi-layer training base ensures industry development needs and forms talent supply system to meet industrial development's need.

Thirdly, Chongqing has the so-called "Cost advantages". The low land price, low tax rate, relatively low cost to cultivate talents and cheap public services give Chongqing cost advantages. It enables firms in Chongqing to provide the same level of services at a lower price those competitors in other cities.

As the a Midwest hub, Chongqing has its own geographical advantage city increases Chongqing software service outsourcing industry competitiveness and attracts more software service outsourcing industry and software talent take rooted in Chongqing's development [13]. It the best investment places in western China where natural resources are easily accessible.

(Add more evidence)

The government's policy brings more benefits to Chongqing's outsourcing industry.. Establishing service outsourcing industries long-term policy system services outsourcing enterprise, training institutions and relevant units. Persistent policy supports to the talents cultivation, taxes, public service platform, international authentication, etc. s.

Based on the present situation, Chongqing has certain superiority in cost compared with other outsourcing cities, economic stability, strong industry base, well-developed infrastructure and etc. In order to develop service outsourcing industry seizing the significant opportunity of the global service outsourcing and off shoring business is necessary [14]. Chongqing must master large-scale complex project management ability and enhance service delivery quality, domain knowledge and interaction with customer ability .With gradual method Chongqing gradually grows as an internationally competitive solution provider. This is an insuperable important learning process.

This paper's research and future research achievements provide reference for government information industry decision-making departments and related the IT industry

enterprise. The government gives key support which has a certain scale of the enterprise, implement big company strategy and promote the scale of development. The cooperate with the government and enterprise innovation education training mechanism, strengthen information technology talented person troop construction, and vigorously promote custom training and employment training. The government encourages the school-enterprise cooperation training and training software service outsourcing industry high-quality talent [15]. The fair, transparent, orderly outsourcing service market has already formed. The government encourages enterprises continue to actively undertake offshore international service outsourcing, and also cultivate onshore service outsourcing market both domestic and international market. The government encourages software enterprise through credit insurance, merger and acquisition, risk investment and financing channels to expand scale and continuously enhance the international competitiveness.

#### *D. Outsourcing Work in Offshore Countries*

Today, everyone understands the logic of software outsourcing development, it is outsourcing work in offshore countries to get it done by cheaper rates with good quality maintenance.

In outsourcing process, when one contacts vendor that provides solution by cheaper cost at offshore destination. Then it's quite obvious, why one should keep non-core functions to be done in-house? Actually the concern is that, how one creates an international company to operate tricky cultural and across multiple time zones with linguistic divides. Few owners of rapidly growing companies have the expertise and time for finding, managing contractors in India & Philippines. If that is not done right, Software outsourcing can turn on any time and one can do offshore outsourcing of any work.

The offshore outsourcing trend has gathered steam into a cottage industry of consultants and brokers so there is no reason that tiny companies cannot get benefited of this global industry and economy just like other big organizations. If the right contractors are there then these intermediaries can help, ensuring good fit, managing the relationship and handling all the problems that pop up repeatedly. These firms are very important especially for growing organization that might not afford those offshore outsourcing projects to be failed.

Sending the work to offshore countries would be lots cheaper, but there is no idea for the initial step for anybody. The inside scoop is whether call centers, transcription service center, or programming shop is doing better business or worst. These companies are also developing a web-based software program as passport, which functions as an information dashboard for clients. American companies with few click of mouse can track the volume of customer service that checks or calls for the status of a software project work.

Offshore Development Centre charges customers with an up-front consulting fee of about eight thousand American dollars and also takes twenty five percentage premiums as an advance upfront cost. Companies are also creating customized system for computer, so it would

finish transcripts arrive as PDF file accomplished by offshore outsourcing.

In Offshore Outsourcing industry some relatively small organizations are having near about ten clients, but the company's owner has very big plans with broad vision. Adding to network of Offshore Outsourcing vendors the numbers grows more than 350 and is also broadening the geographic scope by tapping into small companies in the Philippines & Costa Rica. Even with starting work with Offshore Software Outsourcing in exotic locales; the dynamics of Outsourcing is the same no matter which country is in.

#### V. CONCLUSION

In short, developing the Software service outsourcings industry, actively undertaking international service outsourcing will help our city economy and society to develop quickly and well in the following respects:

(1) Be conducive to optimize industrial structure, integrate into the global industrial division chain and catch up with economic globalization pace.

(2) Be helpful to the quality to utilize foreign capital and adjust trade export structure.

(3) Be conducive to improve the turban's independent innovation ability.

(4) Be helpful to strengthen the comprehensive strength and fame of the outsourcing places.

(5) Be conducive to ease the university students' employment pressure.

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