

Full Length Research Paper

Piecewise statistical programming for workforce allocation: the significance of Taiwanese cadres in China

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This paper presents a novel study which used piecewise statistical approach to estimate the profitability of Taiwan-based corporations investing in China according to their proportion in the total numbers of Taiwanese managers. While using the SPSS statistics software to analyze and calculate the correlation between the earnings, expenditures, proportion of Taiwanese cadres and net profits, it was found that the higher proportion in the total numbers of Taiwanese managers, the higher company earnings and expenditures, and hence, it could indirectly influence net profits. In addition, while using the multiple regression analysis to calculate the R-squared values and also analyzing and comparing the differences in relative data, it showed that the proportion of Taiwanese cadres would have significant influence on the organization's net earnings during the stabilization period. Furthermore, it was feasible to obtain, using the piecewise quadratic programming, the optimal solution in terms of the proportion (80% for overall development period and 63% for the stabilization period) of Taiwanese cadres for Taiwan-based corporations while investing in China in order to ensure the largest net profits for the companies.

Key words: Multiple regression, piecewise programming, statistical significance, workforce allocation.

INTRODUCTION

In recent years, following the rapid development in Mainland China, many Taiwan-based manufacturers have opened their branches in the coastal areas, and thereby, they can combine the advantage of local resources, for example, cheap labors, so as to strengthen their competitive advantage through personnel costs. In light of the prior situation, in addition to low-echelon employees, Taiwan-based corporations would still preferably assign Taiwanese personnel to fill the important executive-level positions, mainly because most of Taiwanese managers were very familiar with a set of comprehensive administrative measures. However while investing in China over a longer period of time, there is a

growing trend towards the localization of management positions in China, particularly when many Chinese cadres already have more experiences in administrative field and also there is a big difference in the salary costs between Taiwanese and Chinese staffs.

Most analyses used to identify the corporation's net earnings in the past were based on their revenue growth rate, and whether or not there are some other factors that could be used to interpret the corporation's net earnings, seems to be a new perspective. Similarly, many Taiwan-based corporations in China, like transnational corporations, must try to maintain a balance of executive-level assignments between Taiwanese cadres and local talented persons. The decision on the localization of management positions in China will definitely have effect on the corporation's business operations, that is to say, how to make wise decisions on the moderate number of Chinese cadres in order to gain the maximum earnings

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has become an important issue for Taiwan-based corporations investing in China.

Current status of China's economic development

An Organization for Economic Cooperation and Development (OECD) report indicated that China will become the world's largest economy in 2015. It meant the development of China market will reach a considerable scale, according to the International Monetary Fund (IMF) latest estimation. In the United States, the real gross domestic product (GDP) growth rate was revised to 2.90% in 2010 due to turmoil in the financial markets, and if we were comparing the United States and China (with 10.30%), the difference is about four times. Until now, the GDP growth forecast for China still grows at nearly 10%, which is about four times better than the United States.

The glory days for the United States playing a role of the world's economic locomotive has gradually faded out, and China's role has become more and more important, and with the world's highest GDP real growth rate, thereby, China has become a principal promoter of the world's economic development.

Taiwan-based corporations' investments into Mainland China

The transnational corporations might face many problems during the initial period of development, and at the beginning, most of them would preferably assign dispatched personnel from the parent companies to assist in the operation of local companies. But this is not a permanent solution, after all, the costs for dispatched personnel is not cheap, also an excessive number of dispatched personnel may affect their parent companies' operation, therefore, the localization of human resource has become an important issue.

Taiwan-based corporations investing in China also face the pressure to localize their organizations. When a subsidiary is to a great extent embedded in a local network; according to institutionalism theory, its HR policies and practices will otherwise be strongly influenced by local forces (Wright and McMahan, 1992).

Issues relating to differences in the degree of localization and the strategic direction of workforce allocation of Taiwan-based corporations are still unresolved and need to be further investigated. Additionally, these issues should not only focus on differences in degrees and contents, but also it needs to further analyze the influence of total numbers of local cadres on the company's earnings. For such issue, Bird and Beechler (2000) raised issues relating to the suitability of corporate strategies with regard to workforce allocation strategies: Subsidiaries with matched strategies performed better

than unmatched ones in terms of human resource management (HRM)-related performance measures such as rates of promotion and turnover. Japanese subsidiaries with a business strategy/HRM match were also more likely to experience better business performance versus competitors than were unmatched ones.

However, some other researchers focused on the revenue growth and fully supported the concept that revenue growth was beneficial to the corporate performance (Yu and Chen, 1999; Luo and Hachiya, 2005; Mak and Kusnadi, 2005). It is expected that this study will survey it from a different standpoint, and look into the influence of localization on corporate earnings and profits based on varied proportion of local cadres thereof.

About Taiwanese cadres

Taiwanese cadres being sent to work in China are generally deemed to be either Taiwanese elites or white-collar workers. However, Taiwanese cadres also include the highly-skilled workers that could be explained by Salt (1997): Most commentary on the highly skilled assumes them to have a tertiary educational qualification or its equivalent. However, many graduates are not in highly skilled jobs; conversely, many whose work is highly skilled are not graduates. The nature of the work performed, and the expertise required, offer further definitional complications because of their rich diversity. The ability to perform in a highly skilled capacity is sometimes linked to previous experience, or to a combination of experience and formal qualification (such as an MBA).

All Taiwanese employees of a Taiwan-based corporation are usually entitled the "Taiwanese cadre" in spite of their education, degree, or experience. Therefore, the so-called Taiwanese cadres are deemed to be a group of white-collar, high-tech personnel, or even it is referring to all Taiwanese employees working for Taiwan-based corporations.

Expenditures of Taiwanese cadres

For Taiwan-based corporations, employing a high proportion of Taiwanese cadres in their companies during the initial period of investment in Mainland China might allow their subsidiary companies in China to quickly copy the management models adopted in Taiwan so that they would be able to gain profits in a short time. And under this circumstance, Taiwanese cadres were forming the cores of their organizations. However, the longer the investment period, the better performance of Chinese cadres in the Taiwan-based corporations will be identified gradually; and the organizations will try to gain more profits by further controlling the personnel costs. Deng (2003) revealed a fact that most of Taiwanese managers

would often accompany their bosses to entertain the clients or went to a leisure place for relaxation together with the boss, which could easily incur extra expenditures. According to Hsing's (1998) estimation, the personnel costs of Taiwanese employees could account for 30 to 40% of the total production costs for a Taiwan-based corporation investing in China, but if local employees are hired in Guangdong instead, it could be reduced to 8 to 12%. While facing intense competitive pressure and to reduce costs seems to be an inevitable trend, it was observed that the burdens resulting from Taiwanese cadres were much higher when employees from China were compared.

Localization of management

Pucik and Katz (1986) suggested that localization should include four dimensions, that is "product localization," "production localization," "localization of profits," and "localization of management," in which, "localization of management" was deemed to a critical factor in determining the success of a multinational operation. When conducting an analysis in accordance with the development of a transnational corporation, there was a trend of using local employees to replace the high-level expatriate cadres in the subsidiary companies.

The measure of hiring local talented people in fact could bring significant benefits to Taiwan-based corporations in Mainland China, and thereat, many domestic and foreign scholars had come up with a consistent result (Chang, 2000; McComb, 1999), and it was found that an enterprise having a larger proportion of localization in China could achieve higher profitability than others. In fact, this was happening everywhere, not only in China. In Russia, Fey and Bjorkman (2001) found that implementing HRM practices that help Russian managers provide feedback to top management and obtain more information about activities in the firm was highly significantly related to firm performance.

In light of the integrated research results (Barber and Pittaway, 2000; Hannon et al., 1995; Rosenzweig and Nohria, 1994), the subsidiary company would become less and less dependent upon its parent company, if the economic conditions in the area where it is situated become more stable, and supposed that the local technological capability had also reached a certain level, hence, the transnational corporations would tend to adopt a strategy of human resource localization so as to respond to the local competition and demands. It can be inferred that the proportion of cadres in the stabilization period will have more influence over the net profits of a subsidiary company while comparing to the initial period of development.

Prime novelty statement

In most of existing literatures, the evaluation of a

company's net profits was mainly based on its revenues. However, the localization of cadres seems to be a trend among multinational-invested enterprises. Thus, this study attempts to put the proportion of cadres into a list of factors that should be taken into account, and thereby, this study attempts to analyze the influence on the net profits caused by the proportion of cadres. The SPSS was used along with the Pearson correlation analysis and regression analysis to calculate the correlation between the proportion of cadres, revenues, expenditures and net profits. An improved model is being used to classify relative data into three categories, which comprises the first two years of investment (the initial period), the next three years after the initial period (the stabilization period), and total five years (the overall process of development), so that it will be able to find out the optimum model among various combinations of the proportion of cadres and net profits in order to achieve the profit maximization. Introducing the proportion of cadres as a new research factor, which is unlike those methods use in calculating the net profits by using revenues, it will be possible for multinational corporations to acquire more reference data for decision-making. The novelty of the approaches lies in the inclusion of an employment localization factor and can provide a reference for the human resource practice of multinational corporations.

MATERIALS AND METHODS

This study focused on analyzing the mechanism for the localization of cadres and organization's profits of Taiwan-based corporations in China. Therefore, all relative analyses had been categorized into "the proportion of cadres versus organization's net profits" so as to obtain a result indicating the proportion of cadres affecting the organization's profits. Furthermore, the research outcomes were presented by means of two kinds of model-based approaches. Firstly, to survey the relationship between various factors with the correlation analysis, and secondly, using the regression analysis to validate whether there was any potential influence existing between each independent variable and predictor variable in relative architecture, and finally, this study compared the results obtained from the analyses of three different periods, that is, the initial period, the stabilization period and overall development period.

Data

This study was aimed at Taiwan-based corporations investing in Mainland China, therefore, the most distinguished food companies situated in the coastal areas of China, which was the most intensive area of multinational corporations, were randomly selected as the subjects for the present study. From early 2004 till 2008 during the period for companies' factory construction, a total of 20 quarterly data as basic data were collected and used in this study (Table 1).

Data split

While calculating the significance in accordance with data relating to 5-year net profits and varied proportion of cadres as shown in Table 2, this study obtained a set of data, where relative data was

Table 1. Quarterly data collected during 2004 to 2008. Units: Million RMB.

Year	Revenue	Cost	Profit	Number of Taiwanese cadres	Total number of cadres	The proportion of cadres
2004.1	0.00	0.99	-0.99	31	55	0.564
2004.2	0.00	3.33	-3.33	31	55	0.564
2004.3	5.23	4.16	1.07	31	55	0.564
2004.4	5.28	2.24	1.04	31	55	0.564
2005.1	0.03	4.16	-4.58	31	55	0.564
2005.2	3.79	3.59	0.20	31	55	0.564
2005.3	4.96	4.01	0.95	31	55	0.564
2005.4	5.17	4.21	0.96	31	55	0.564
2006.1	7.64	6.35	1.29	57	70	0.814
2006.2	7.99	6.28	1.71	57	70	0.814
2006.3	7.73	6.31	1.42	57	70	0.814
2006.4	7.67	6.44	1.23	57	70	0.814
2007.1	7.23	5.67	1.56	42	71	0.592
2007.2	7.17	5.50	1.67	42	71	0.592
2007.3	7.08	5.64	1.44	42	71	0.592
2007.4	7.32	5.74	1.58	42	71	0.592
2008.1	5.62	4.60	1.02	25	68	0.368
2008.2	5.40	4.43	0.97	25	68	0.368
2008.3	5.41	4.43	0.98	25	68	0.368
2008.4	6.00	4.89	1.11	25	68	0.368

Table 2. Significance of net profits versus proportion of cadres in each year.

Year	2004	2005	2006	2007	2008
Significance	0.633	0.675	0.001	0.000	0.000

categorized into two periods, comprising: an initial period covering 2004 and 2005 and a stabilization period covering 2006, 2007 and 2008. While conducting the analysis of relational data, it was required to compare the data relating to three periods, for example, the initial period, the stabilization period, and overall development period.

Method

The research approaches utilized the “number of Taiwanese cadres divided by total number of cadres in China” as an indicator of the proportion of cadres to be calculated together with the revenues and expenditures. The financial net profits were deemed to be the performance indicators. As such, while net profits were acting as the dependent variables, firstly, it was interpreted by using variables comprising the proportion of cadres, revenues and expenditures. Then the appropriate proportion of cadres would be evaluated in accordance with three sets of data relating to three different periods, that is, the initial period, the stabilization period and overall development period. Afterwards, the Pearson's correlation analysis and the significance test were conducted to find relationships between pairs of variables, followed by the regression analysis to conduct causation analysis, and followed by the quadratic programming method for each of the three development periods. The Pearson correlation analysis is applicable to more than 2

continuous variables to be equidistant, which can be either the interval scale or ratio scale (Cohen, 1988).

$$\rho_{xy} = \frac{\sigma_{xy}}{\sigma_x \sigma_y} = \frac{\frac{1}{N} \sum (X - M_x)(Y - \mu_y)}{\sqrt{\frac{1}{N} \sum (X - \mu_x)^2} \sqrt{\frac{1}{N} \sum (Y - \mu_y)^2}} \tag{1}$$

where ρ_{xy} denotes X, Y's correlation coefficient; σ_{xy} is X and Y's covariates; σ_x is X's standard deviation; σ_y is Y's standard deviation; μ_x is X's mean and μ_y is Y's mean.

The significance test was to make an assumption about overall (random variable) parameters or the form for the overall distribution. Then using the sample information to determine whether this assumption (null hypothesis) is reasonable or not, that is, to determine whether there is a significant difference between true overall situation and null hypothesis. The adoption of two-tailed or one-tailed test depends on the form of alternative hypothesis as shown in Table 3 (Freedman, 2005). When testing, the probability of true “null hypothesis” is usually about 5% (often indicated by $p \leq 0.05$).

Table 3. Two-tailed and one-tailed significance tests and their hypotheses.

Test	Null hypothesis	Alternative hypothesis
Two-tailed	$H_0: \theta = \theta_0$	$H_1: \theta \neq \theta_0$
One-tailed	$H_0: \theta \geq \theta_0$	$H_1: \theta < \theta_0$

The regression analysis can be divided into simple regression (Equation 2) and multiple regression (Equation 3); simple regression was used to investigate the relationship between a dependent variable and an independent variable while multiple regression was used to investigate the relationship between a dependent variable and multiple independent variables (Kutner et al., 2004; Lin and Chen, 2009).

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i \quad i=1, 2, \dots, n \tag{2}$$

where Y_i is the dependent variable with n data points; X_i is an independent variable; β_0 is a constant and β_1 is the regression coefficient; ε_i is the error.

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_k X_{ki} + \varepsilon_i \tag{3}$$

where Y_i is the dependent variable; X_{ki} are independent variables; β_0 is a constant and $\beta_1 \dots \beta_k$ are regression coefficients; ε_i is the error.

A data set has values y_i , each of which has an associated modeled value \hat{y}_i . The values y_i are called the observed values and the modeled values \hat{y}_i are called the predicted values (Draper and Smith, 1998; Everitt, 2002; Nagelkerke, 1992; Glantz and Slinker, 1990). The “variability” of the data set is measured through different

sums of squares: $SS_{tot} = \sum_i (y_i - \bar{y})^2$ is the total sum of squares (proportional to the sample variance) with \bar{y} being the

mean of the observed data $\bar{y} = \frac{1}{n} \sum_i y_i$, where n is the number

of observations; $SS_{reg} = \sum_i (\hat{y}_i - \bar{y})^2$ is the regression sum of squares, also called the explained sum of squares;

$SS_{err} = \sum_i (y_i - \hat{y}_i)^2$ is the sum of squares of residuals, also called the residual sum of squares. The R-squared value can be determined as:

$$R^2 = 1 - \frac{SS_{err}}{SS_{tot}} \tag{4}$$

The quadratic curve method is a kind of prediction method (Lin and Chen, 2009; Lin, 2011; Lin et al., 2012) of extrapolation curve that is being used to survey the trend changes of time-series observation data over time which would likely show from high level to low level, and then, back to high level (or from low level to high level, and then back to low level). As the scatter plots of time-series observation data shows the changes in parabolic shape, it has been named as the “quadratic (parabolic) prediction model” (Akopyan and Zaslavsky, 2007). The prediction model for the curvilinear trend-extrapolation was as follows.

$$\hat{y}_t = \hat{a} + \hat{b}x_t + \hat{c}x_t^2 + \hat{d}x_t^3 + \hat{e}x_t^4 + \dots \tag{5}$$

where \hat{y}_t is the predictive value of a variable (dependent variable); x_t is time variables (independent variables). When $\hat{c} = \hat{d} = \dots = 0$, $\hat{y}_t = \hat{a} + \hat{b}x_t$ is a prediction model for the

curvilinear linear trend-extrapolation, and $\hat{d} = \hat{e} = \dots = 0$, $\hat{y}_t = \hat{a} + \hat{b}x_t + \hat{c}x_t^2$ is a prediction model for the curvilinear quadratic extrapolation. The characteristics of the quadratic curve method include (1) the second derivative for the equation of a quadratic curve was a constant; (2) the quadratic curve method is applied under certain circumstance when the change of time-series data moving up and down to form a parabolic shape.

ANALYSIS AND DISCUSSION

Pearson correlation

According to data of over 5-year period (Table 4), among the value of variables used to interpret the organization’s net profits, the revenue was the highest; the next was the expenditure or cost; and the lowest was the proportion of cadres, which indicated that most of researchers utilizing the growth of revenue to predict the organization’s net profits were correct. The proportion of cadres was only correlated with the expenditure with significance at the 0.05 level; hence, it could be inferred that the higher proportion of Taiwanese cadres working in the company, the higher expenditure.

In Table 5, it showed a negative correlation between net profits for the first 2 years and expenditures of the first 2 years, and an incomputable correlation between net profits for the first 2 years and proportion of cadres in the first 2 years, respectively, wherein, it implied that net profit was affected by the hidden factors. It was shown afterwards that the negative profits shown in the first-quarter 2004, the second-quarter 2004 and the first-quarter 2005 respectively, were actually resulted from specific situations, for example, the purchase of new equipments and the suspension of construction. Thereby, Taiwan-based corporations investing in Mainland China would be prone to encounter such kinds of uncertain lurking factors during the initial period of their investment.

With reference to the relative data collected from the stabilization period (Table 6), it showed that revenues were highly correlated with the net profits, with the

Table 4. The correlation and significance of various factors in overall development period (total 5 years).

Correlation	Revenue	Cost	Profit	Cadres
Revenue Pearson correlation	1	0.791**	0.895**	0.340
Sig. (1-tailed)		0.000	0.000	0.071
N	20	20	20	20
Cost Pearson correlation	0.791**	1	0.475*	0.470*
Sig. (1-tailed)	0.000		0.017	0.018
N	20	20	20	20
Profit Pearson correlation	0.895**	0.475*	1	0.131
Sig. (1-tailed)	0.000	0.017		0.291
N	20	20	20	20
Cadres Pearson correlation	0.340	0.470*	0.131	1
Sig. (1-tailed)	0.071	0.018	0.291	
N	20	20	20	20

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

Table 5. The correlation and significance of various factors in the initial period.

Correlation	Revenue	Cost	Profit	Cadres
Revenue Pearson correlation	1	0.355	0.896**	.a
Sig. (1-tailed)		0.194	0.001	
N	8	8	8	8
Cost Pearson correlation	0.355	1	-0.009	.a
Sig. (1-tailed)	0.194		0.492	
N	8	8	8	8
Profit Pearson correlation	0.896**	-0.009	1	.a
Sig. (1-tailed)	0.001	0.492		
N	8	8	8	8
Cadres Pearson correlation	.a	.a	.a	.a
Sig. (1-tailed)				
N	8	8	8	8

**, Correlation is significant at the 0.01 level (1-tailed), .a, cannot be computed because at least one of the variables is constant.

correlation equal to 0.810 and significance at the 0.01 level. Both the expenditures and the proportion of cadres would also have strong influence on the net profits, with the correlations equal to 0.672 and 0.621 respectively, implying that both factors were highly significant on the net profits. Such a factor of the proportion of cadres was found significant, especially in the stabilization period.

In light of the data analysis, it was found that the more the numbers of Taiwanese cadres that are hired by the Taiwan-based corporations in China, the higher the revenues, which could also lead to relatively high expenditures. It has shown that the proportion of cadres

could indirectly influence the net profits, so that the evidence regarding the proportion of cadres acting as one factor affecting the company's net profits was supported, with its correlation being increasingly significant from the initial period to the overall period, and to the stabilization period of development.

Regression analysis

Firstly, it was conducted to find out the R-squared and significance of the proportion of cadres against the

Table 6. The correlation and significance of various factors in the stabilization period.

Correlation	Revenue	Cost	Profit	Cadres
Revenue Pearson correlation	1	0.978**	0.810**	0.948**
Sig. (1-tailed)		0.000	0.001	0.000
N	12	12	12	12
Cost Pearson correlation	0.978**	1	0.672**	0.980**
Sig. (1-tailed)	0.000		0.008	0.000
N	12	12	12	12
Profit Pearson correlation	0.810**	0.672**	1	0.621*
Sig. (1-tailed)	0.001	0.008		0.016
N	12	12	12	12
Cadres Pearson correlation	0.948**	0.980**	0.621*	1
Sig. (1-tailed)	0.000	0.000	0.016	
N	12	12	12	12

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

Table 7. R-squared and significance of three sets of data.

R-squared/ significance	The proportion of cadres versus revenue	The proportion of cadres versus cost	The proportion of cadres versus profit	The proportion of cadres + revenue + cost versus profit	Revenue versus profit
Overall development period	0.340/0.142	0.470/0.037	0.131/0.582	0.980/0.000	0.895/0.000
The initial period	0.182/0.666	0.629/0.095	0.016/0.971	0.971/0.006	0.981/0.000
The stabilization period	0.948/0.000	0.980/0.000	0.621/0.031	1.000/0.000	0.810/0.001

revenues and expenditures, respectively, by using simple regression. Next, a multiple regression approach was utilized to verify the correlation with net profits, when the proportion of cadres, revenues and expenditures were acting as independent variables, and when all the relative data collected from within the three periods were compiled in Table 7. The three independent variables could satisfactorily explain the net profits, especially the R-squared value reaching 1.000 during the stabilization period. While referring to the table containing the revenues versus net profits, the R-squared value in the stabilization period was lower than the initial period, indicating that there were other factors that could affect the company's net profits during the stabilization period. On the contrary, in the part of the proportion of cadres versus net profits, the highest R-squared value would be obtained in the stabilization period compared to the other two periods, indicating that the proportion of cadres had little significant influence on net profits during the initial period of development, yet it could become much more significant during the stabilization period.

The diagram of optimal curve

Conducting the secondary analysis with the SPSS's

optimal curve in order to find out the best proportion of cadres, it could be found that, at the initial period, the net profits would increase when more Taiwanese cadres were hired, but only that the influence was not significant (Figure 1). While referring to the diagram of optimal curve for overall development period (Figure 2), it showed that the highest net profits would be acquired when the proportion of Taiwanese cadres was at 80%; according to the diagram of optimal curve for the stabilization period (Figure 3), it showed that the highest net profits would be gained when the proportion of Taiwanese cadres dropped to about 63%. Such model-based statistics could be referenced for strategic workforce allocation.

Conclusion

This study has demonstrated the influence of the proportion of Taiwanese cadres on an organization's performance in making profits. Additionally, the preset study has also revealed that many of the management measures used by Taiwan-based corporations investing in Mainland China, in fact, have already reflected their technical capability and competitive advantages. As such, while considering the company's technical capability and

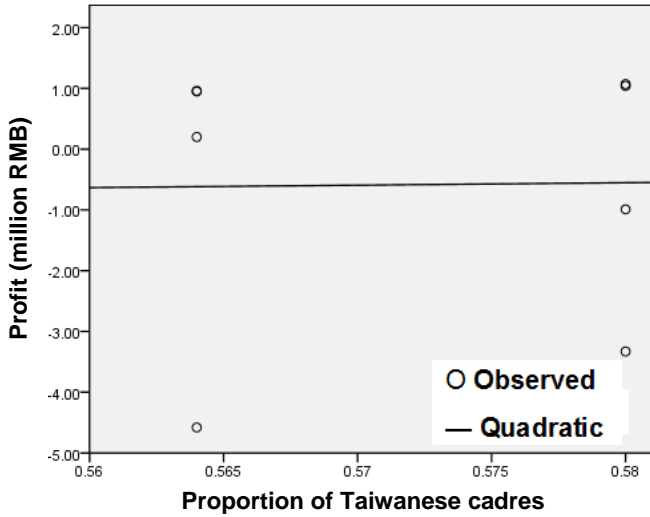


Figure 1. The diagram of optimal curve for the initial period.

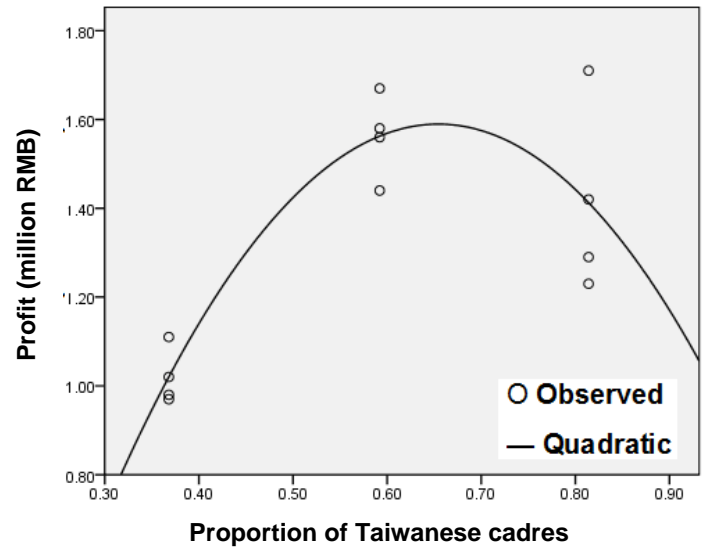


Figure 3. The diagram of optimal curve for the stabilization period.

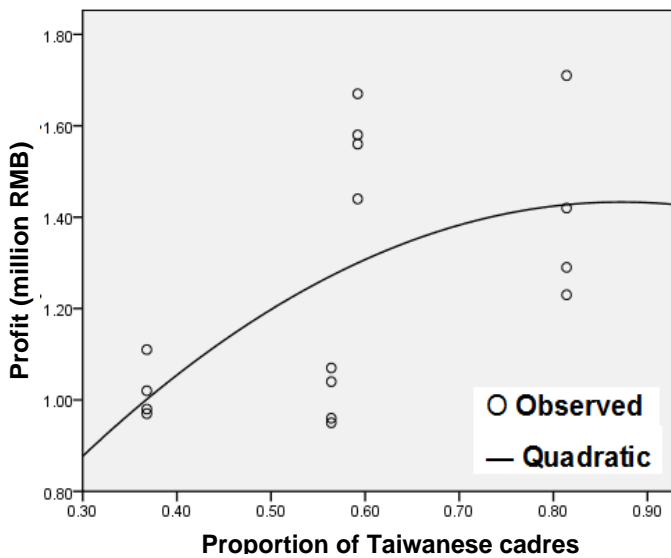


Figure 2. The diagram of optimal curve for overall development period.

competitive advantages as well as the quality of local employees along with administrative assistance, it may be necessary to further adjust the numbers of Chinese cadres and employees hired by the company in addition to concrete management measures. It could be found that using Taiwanese cadres would increase the company's revenues, but it could also increase the expenditures. By the time the Chinese cadres were able to improve their capability levels, the expenditures would become lower by hiring the Chinese cadres instead. Under this circumstance, the localization would become a human resources management trend for the Taiwan-based corporations investing in China. This study has

identified and validated various conclusions with regard to organizational behaviors, and found that the company's net profits could be predicted by the revenues; the usage of Taiwanese cadres will not only influence the organization's workforce allocation, no matter how many cadres are being assigned, but will also affect an organization's performance in making profits. While using the data collected from overall development period to predict the company's profits, it would generate some errors due to uncertain factors, although the profit values obtained by means of this predicted method were correct, with R-squared value equal to 0.980 in the associated multiple regression. The predicted values will become more accurate if the data used are in the stabilization period with the R-squared value equal to 1.000. In accordance with the results obtained from the regression analyses for the overall development period, the best profits will occur when the proportion of Taiwanese cadres is at 80%. Nevertheless, in the stabilization period, the best profits will occur when the proportion of Taiwanese cadres drops to 63%, and this result indicates that the localization of cadres will become a good method to raise the organization's net profits when the organization is gradually entering into a stabilization period of development.

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