

PERFORMANCE MEASUREMENT AND COMPETITIVE STRATEGY DEVELOPMENT OF STATE-OWNED ENTERPRISES IN CHINA

Xiaosong Zheng¹

Shanghai University, Shanghai, China
Tallinn University of Technology, Tallinn, Estonia

ABSTRACT

Private sector is recognized as the driving force and the engine for economic growth. Electronic payment services, enables enterprises to manage the financial resources available to them more effectively. In the increasingly competitive market, the state-owned enterprises (SOEs) in China, which dominate the national economy, have to take actions to enhance their competitive advantages in response to the competition. On one hand, competitive advantage of a company has impacts on its performance. On the other hand, the enterprise needs to develop competitive strategies related to its goals. Therefore, the two elements interact with each other. However, most scholars only focus on one aspect to do research, which resulted in incomplete findings. This article summarizes the development process of performance measurement in China and Western countries, based on performance measurement theory, and points out the disadvantages of the performance measurement system of state-owned enterprises in China. In addition, competitive strategies of company are sorted out. On the basis of existing research results, the article built a performance measurement index system which is used as a theoretical tool for case study. Then, through theoretical analysis and case studies of the two state-owned enterprises in the civil

JEL CLASSIFICATION & KEYWORDS

■ L10 ■ PERFORMANCE ■ MEASUREMENT ■ STRATEGY
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INTRODUCTION

With the globalization of economy, many multinational companies focus on China to open up new markets. China is now in an open market environment and increasingly fierce competition makes enterprise operating becoming difficult. In order to seek the way of survival and development, enterprises must improve their competitive advantage. Improving the overall performance and making suitable strategy are two aspects for enterprises to achieve the goal.

Performance consists of organization performance and individual performance. When organization performance is assigned to individuals according to certain level and personal goals are achieved which can ensure the overall benefits of enterprises. Performance evaluation is an important part of performance management which is closely connected to the strategic target and is fundamental to management. Therefore, a set of scientific performance evaluation system must be established by enterprises to complete and improve the performance of an organization. Especially for China, in which the system of performance evaluation is currently in the stage of assessment and many defects exist in the evaluation system. First, managers do not treat the results of performance evaluation as important, often put the results aside and be formal doctrine. Secondly,

¹ xiaosong.zheng@shu.edu.cn

the purpose of evaluation is not clear and cannot be combined with the goals of enterprises. Thirdly, the method of evaluation is not scientific. It does not choose mature evaluation method such as the balanced scorecard, Economic Value Added (EVA) and 360-degree appraisal method. Problems that exist in performance evaluation will hinder the development of State-Owned Enterprises (SOEs). Therefore, the analysis of the characteristics of the SOEs can avoid being maladjustment when copying the performance evaluation method of western SOEs. Furthermore, finding the appropriate performance appraisal system will have a strong reference value with regard to improving strategies for the evaluation work of SOEs.

For more than 30 years, since the open and reform policy started in 1978, SOEs of China have made certain achievements and economic efficiency has been improved obviously. These achievements are the results that can be seen on the surface, when look inside, what type of SOEs are profitable and how do they make the profit, should be carefully explored. Among the world top 500 enterprises in 2013, 95 Chinese enterprises were in the ranking. At present, China monopolizes in industries such as petroleum and petrochemical, electricity, tobacco, civil aviation, railway, and steel manufacturing.

According to the data of China Statistical Yearbook 2013, from 2009 to 2013, the operating income of SOEs increased from 22.50873 trillion yuan to 46.47492 trillion yuan with the average annual growth of 19.87%; the total profits increased from 1.33922 trillion yuan to 2.40505 trillion yuan with the average annual growth of 15.76% (China Statistical Yearbook, 2013). Although the performance indexes achieve the planned growth target, problems still exist in its operating mechanism and management system. It is important to promote the competitiveness of the SOEs and to explore its competitive strategy with the aim of confronting the fast pace of market competition.

Four aspects of innovation are presented in this article: (1) the selected topic contains both the performance evaluation of SOEs and the competition strategy, which is more comprehensive, compared with previous studies; (2) the related theory is modified and localized which suggestions made to take into account China's national conditions to improve the performance evaluation system of SOEs; (3) select several SOEs of China's airline industry to compare and contrast; (4) summarize significant research results and made practical suggestions for improvement of the performance evaluation system.

Performance evaluation evolution

The time period of performance evaluation of China's domestic enterprises is shorter, which can be roughly divided into four stages: take real production as the principle in performance evaluation (1950-1978), take real production as the core indicators in performance evaluation (1978-1992), take the rate of investment return as the main index in performance evaluation (1993-1998), and comprehensive

performance evaluation (1999 - present). Different characteristics were presented in different stages of the performance evaluation with the change of market environment, national reform and the economic development of each period.

Period 1 – Take real production as the principle

At the beginning of the founding of new China, highly centralized planned economic system was implemented by the state. Enterprises did not have any autonomy at that time. Enterprises produced in accordance with the mandatory production plan under this system and the performance evaluation was on the basis of “material production” and “product quality.” The main thing that enterprises focus on was to complete production as planned instead of corporate profits and development, which resulted in the serious inefficient problem (Liu & Xia, 2005).

Period 2 – Total profit as the core indicators in performance evaluation

Along with the development of market economy, the single profit index seems to be somewhat problematic. Cai and Zheng (2003) mentioned that in 1982, the former state economic commission, the former state planning commission and other six ministries jointly established The Main Economic Indicators For Enterprises, which provide 16 indicators for performance evaluation. These 16 indicators comprehensively reflect the economic benefits of enterprises. In 1992, the state development planning commission and other departments released the index system of economic benefit evaluation of industrial enterprises, including six indicators, and coined the concept of standard value, contributing to the appearance of a unified national standard of the enterprise performance evaluation (Cheng, 2011). The system sets up the weight of each index, which is more scientific compared with the method that only focuses on historical data.

Period 3 – The return of the investment as the main index in performance evaluation

In 1993, the ministry of finance issued “enterprise financial rules,” including eight indicators that are asset-liability ratio, current ratio, quick ratio, accounts receivable turnover, inventory turnover and capital profit margin, tax rate of sales and cost margin. These eight indicators examine the management status from several aspects, marking the evaluation of the enterprise performance more comprehensive and scientific (Cai & Zheng, 2003). Two years later, the ministry of finance developed The Evaluation Index System of Enterprise Economic Benefit (trial), initially formed the performance evaluation system which uses the return on investment as the main index (Cheng, 2011).

Period 4 – Comprehensive performance evaluation

In 1999, the ministry of finance and other departments issued the Performance Evaluation Rules of State-owned Capital and The Performance Evaluation of State-owned Capital Operation Conditions. Wang and Liu (2009) argued that this is the symbol of realizing systematic performance evaluation for the first time in China. In 2006, the state promulgated The Implementing Rules for the Central Enterprise to point out that it is necessary to combine quantitative analysis and qualitative analysis, to conduct horizontal and vertical comparison of the evaluation method, to improve the competitiveness of enterprise in the market. At present, the performance evaluation system takes innovation ability, social responsibility, corporate core competence, competitive strategy and other factors into

consideration, which are critical for the long-term development of enterprises. In conclusion, the performance evaluation system in China is being continuously improved along with the further open and reform progress.

Research method

Enterprises and managers are two kinds of evaluation objects and this article selects SOEs as object to analyze. On the basis of the balanced scorecard and key performance indicators method for reference, the performance evaluation of state-owned airline enterprise is divided into two main parts: financial indicators and non-financial indicators. In terms of financial index, it is divided into four secondary indexes, namely, profit ability, debt paying ability, operating ability and growth ability, which is made up of 11 tertiary indicators. For non-financial indicator, combined with the characteristics of the airline industry, it is divided into three parts, including aviation security, customers and employees, which is further subdivided into six tertiary indicators. The framework of performance evaluation system is shown in Table 1.

Table 1: The index system of enterprise performance evaluation in the airline industry of China

	B1 profitability (29%)	B2 solvency (14%)	B3 operation capacity (14%)	B4 the ability of development (18%)
A1 Financial Indicators (75%)	<ul style="list-style-type: none"> • C1 rate of return on sale (20%) • C2 rate of return on total assets (28%) • C3 return on equity (40%) • C4 Cost and expense ratios (12%) 	<ul style="list-style-type: none"> • C5 quick ratio (35%) • C6 asset-liability ratio (65%) 	<ul style="list-style-type: none"> • C7 current asset turnover (35%) • C8 turnover of fixed assets (65%) 	<ul style="list-style-type: none"> • C9 total assets growth rate (33%) • C10 business growth (45%) • C11 capital preservation increment rate (22%)
A2 Non- Financial index (25%)	<ul style="list-style-type: none"> • C12 whether pass IOSA certification (50%) • C13 accident proneness rate (50%) 	<ul style="list-style-type: none"> • C14 rate of regular freight (58%) • C15 the rate of complaint from customers (42%) 	<ul style="list-style-type: none"> • C16 salary per capita (57%) • C17 training expenses per capita (43%) 	<ul style="list-style-type: none"> • C12 whether pass IOSA certification (50%) • C13 accident proneness rate (50%)
Source: Author				

The reason why this article selects Southern airlines and Eastern airlines as the cases to study the indicators in Table 1 is that they are typical airline companies of China. This article studies the original data from China Eastern airlines (hereinafter referred to as “eastern”) and China southern airlines (hereinafter referred to as “southern”) published in 2008-2013 annual reports and social responsibility reports, as well as the relevant information published by the civil aviation administration of China. As C12 is a qualitative index, we assign “yes” to 1 and “no” to 0 to simplify calculations. Furthermore, this article uses the weighted average method to calculate comprehensive evaluation of the enterprise value and the score of competency assessment.

Results and Discussion

Performance appraisal indicators and profit margins for the two airline companies are shown in the following tables and figures.

Table 2: Performance appraisal indicator of China Southern Airlines from 2008 to 2013

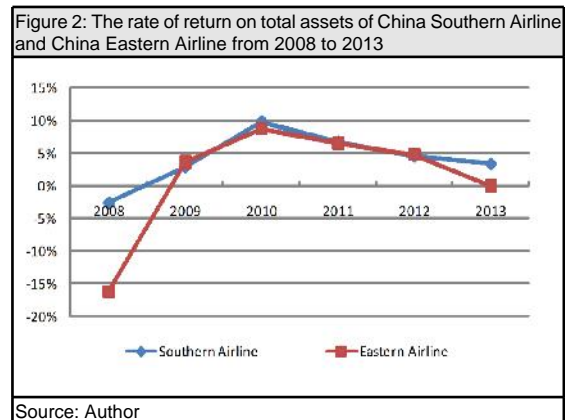
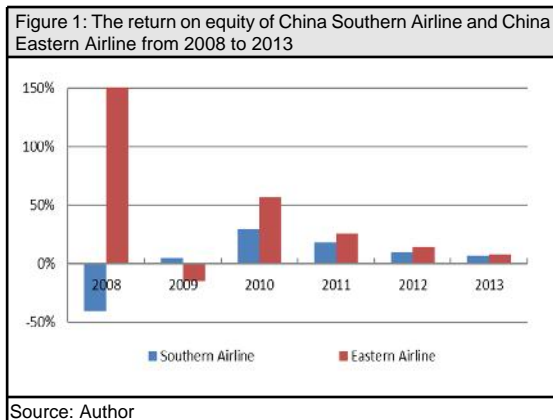
	index	2008	2009	2010	2011	2012	2013
Financial indicators	profit ratio of sales	-8.41%	0.82%	10.58%	7.67%	4.76%	4.00%
	rate of return on total assets	-2.55%	2.92%	9.77%	6.65%	4.50%	3.34%
	return on equity	-40.41%	4.88%	29.51%	17.91%	9.76%	6.69%
	cost and expense ratios	-7.85%	0.78%	12.55%	8.82%	5.25%	4.04%
	quick ratio	19.43%	20.84%	44.87%	40.23%	30.94%	38.46%
	asset-liability ratio	88.62%	101.43%	72.84%	70.81%	62.10%	74.30%
	current asset turnover	6.26	6.1	6.12	5.12	5.49	4.66
	fixed assets turnover	1.02	0.97	1.19	1.21	1.09	0.87
	total assets growth rate	1.25%	-3.23%	38.48%	16.34%	10.08%	15.97%
	business growth	1.17%	0.68%	36.49%	18.17%	10.09%	0.97%
Non-Financial Index	capital preservation increment rate	66.12%	140.33%	227.89%	125.04%	105.18%	106.84%
	whether pass IOSA certification	1	1	1	1	1	1
	Accident proneness rate	0.064	0.089	0.008	0	0.036	0.02
	rate of regular freight	83.45%	79.15%	77%	78.55%	77.16%	74.13%
	the rate of complaints from customers	0.023	0.013	0.02	0.0077	0.033	0.034
	salary per capita	10.65	11.68	11.85	14.43	16.23	16.36
	training expenses per capita	1.06	1.1	0.96	0.95	0.9	0.98

Source: Author

Table 3: Performance appraisal indicator of China Eastern Airlines from 2008 to 2013

	index	2008	2009	2010	2011	2012	2013
Financial indicators	profit ratio of sales	-33.42%	1.61%	7.79%	6.15%	4.13%	2.52%
	rate of return on total assets	-16.13%	3.61%	8.68%	6.47%	4.74%	3.21%
	return on equity	374.68%	-15.00%	56.50%	25.32%	13.99%	8.17%
	cost and expense ratios	-28.91%	1.44%	8.27%	6.48%	4.16%	2.50%
	quick ratio	17.62%	16.63%	26.64%	27.84%	21.68%	19.41%
	asset-liability ratio	115.12%	94.98%	83.56%	80.26%	79.30%	80.92%
	current asset turnover	4.66	4.61	8.07	6.6	6.49	6.96
	fixed assets turnover	0.84	0.74	1.21	1.2	1.13	1.03
	total assets growth rate	9.00%	-1.59%	39.98%	11.31%	7.79%	13.90%
	business growth	-3.87%	-4.81%	88.19%	12.03%	1.90%	2.85%
Non-Financial Index	capital preservation increment rate	-310.12%	-32.65%	458.79%	133.60%	113.08%	104.99%
	whether pass IOSA certification	1	1	1	1	1	1
	Accident proneness rate	0.026	0.059	0.068	0.07	0.05	0.006
	rate of regular freight	84.60%	83.45%	79%	79.85%	77.82%	76.59%
	the rate of complaints from customers	0.016	0.006	0.006	1.54	1.5279	1.3216
	salary per capita	10.59	10.43	10.59	12.3	20.07	22.13
	training expenses per capita	0.76	1.05	1.47	1.48	1.31	1.61

Source: Author



It can be seen from Figure 1 and Figure 2 that the return on equity and return on total assets show similar trends for China Southern Airline. In 2008, the return on equity of China Southern Airline was as low as 40.41%. In 2009, although the amounts increased slightly, it was still very low until a favourable turn in 2010. The similar situation also appeared on China Eastern Airline in these years. The rate of return on total assets of China Eastern Airline increased from -16.13% in 2008 to 8.68% in 2010 and witnessed a downward trend in the following three years. In addition, the sales margin of China Southern and China Eastern were negative in 2008 (8.41% and 33.42%, respectively).

The earnings level of both two companies was in the doldrums during the period 2008 to 2009, which was mainly caused by the influence from external environment and the internal management. In 2008, the south suffered a severe ice and snow disasters, which lead to the grounding of aircraft. China Eastern airlines also suffered huge loss from hedging jet fuel, as high as 6.2 billion yuan in 2009 (Yu, 2009). At the end of 2008, the financial crisis swept through, which was a bad news for the whole civil aviation industry. In 2009, the merger of Shanghai Airline as well as the convoke of world expo at Shanghai in 2010 contributed to the increased profit level of China Eastern Airline. At the same time, the convening of the Asian games in 2010 and the slightly improvement of economic situation also brought opportunities to China Southern Airline. The profitability score of the two companies is calculated by linear weighted calculation method (see Figure 3), the profitability of both two airlines is volatile during the six years. The profitability of China Southern Airlines had a certain gap compared with China Eastern Airlines while the distance is narrowed in recent three years.



According to the data from Table 2 and Table 3, the quick ratio of China Southern Airline is significantly higher than that of China Eastern Airline, which indicates that the short-term debt paying ability of China Southern is better, adequate reserves and high liquidity can make up for the shortage of high fixed assets ratio to a certain extent. For different industries, the requirement of the asset-liability ratio is not at the same level. It is generally believed that the financial position of the enterprise in China is favorable when asset-liability ratio is about 70%. Therefore, the long-term debt paying ability of Southern Airline is better than that of Eastern Airline. To summarize, the solvency ability of China Southern is stronger compared with China Eastern.

From 2008 to 2009, the current assets turnover of China Southern Airlines was higher than China Eastern Airline. However, since 2010, the current assets turnover of China Eastern Airline had caught up with that of China Southern

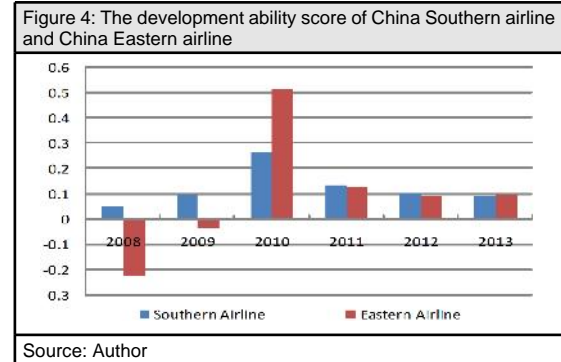
Airlines, maintaining at about 6.6 times. This indicates that the liquidity of China Eastern is improved, which is advantageous to the daily operation of funds and to carry out business activities. The fixed asset turnover rate for the two companies is nearly the same.

Table 4: the current asset turnover rate of the two companies from 2008 to 2013

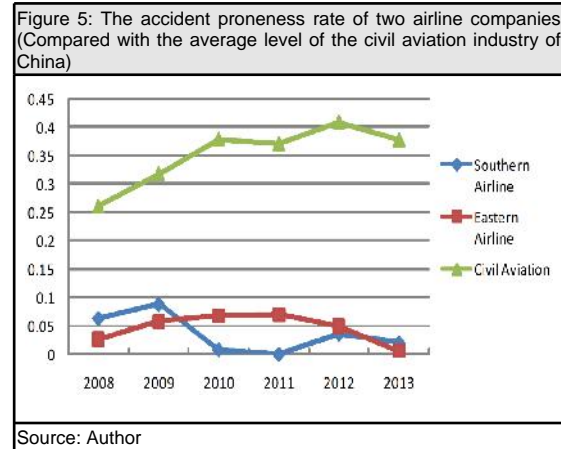
	2008	2009	2010	2011	2012	2013
Southern Airline	6.26	6.1	6.12	5.12	5.49	4.66
Eastern Airline	4.66	4.61	8.07	6.6	6.49	6.96

Source: Author

From 2008 to 2013, total assets growth rate of the two airlines experienced fluctuations. In the recent three years, the total assets growth rate of China Southern is consistently higher than that of China Eastern, which shows the total assets turnover of China Southern Airlines is continuously higher and the sales ability is stronger. In 2013, the business growth rate of China Southern was slightly decreased 0.97 percent while the comprehensive growth rate was still higher than China Eastern from 2011 to 2013. Since the mergers and acquisitions of Shanghai Airline in 2009, the huge loss was improved in 2008, which is expected to have a better development in the future. As China Southern Airlines has larger size, higher market share, the overall development ability is slightly better than that of China Eastern Airline.

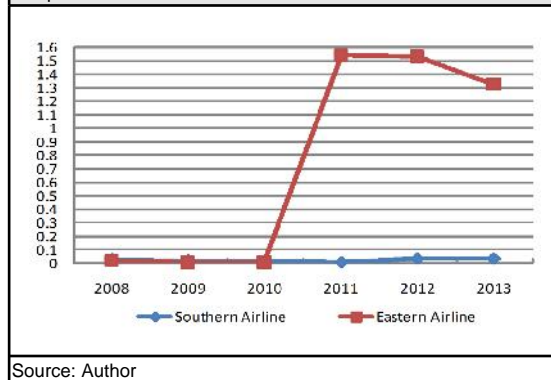


Security is one of the most important problems of the airline industry, which is also the foundation of the existence and development of the airline companies. Both of the two airlines go through IOSA review in many years. In terms of accident proneness rate, both China Southern Airline and industry average and they are at the similar safety level (see Figure 5).



Customer is an important target of services for all companies, which is also a kind of precious resources. Bad customer service can lead to the loss of customers and resources of airline companies. Throughout 2008 to 2013, the rate of complaints from customers for China Southern Airlines remains at a good level while the complaints from the customers of China Eastern Airlines was significantly increased since 2010 (see Figure 6), which was mainly caused by the ignore of complaints.

Figure 6: The rate of complaints from customers for the two companies from 2008 to 2013



CONCLUSION

This article studied the data from domestic and international relevant research and method of performance evaluation at home and abroad based on the research object of China's state-owned enterprises. A system of performance evaluation index was established by this article, combining with related competitive strategy theory and the analysis of the typical case.

After the study of research achievements of scholars, it has been found that the performance evaluation of state-owned enterprises in China has the following shortcomings: (1) managers do not take the performance evaluation results seriously (2) the purpose of evaluation is not clear, which cannot be combined with the goals of enterprise; (3) the method of evaluation is not scientific and the managers assess staffs with heavy subjective factors; (4) non-financial factors are not considered seriously.

Regarding the above shortcomings, this article made the following suggestions for improvement: (1) improve the level of specialization of the human resources department, which can ensure the objective and fair evaluation results; (2) social factors, including customers, the environment and employees, must be taken into account as they are important for the sustainable development of enterprises; (3) feedback should be given for evaluating results and managers should communicate with employees with performance problems instead of just criticism.

REFERENCES

- Cai, L., & Deng, M.Q. (2003). Zhōngguó qìyè jìngyíng jìxiào píngjià dè yànjiū jí bǐjiào yánjiū [The research of evaluation and comparison on performance evaluation of enterprises in China and America]. *The Economic Aspect*, 9, 40-44.
- Cheng, C. (2011). Wánguó guóyǒu qìyè jìxiào píngjià fāzhǎn yánjiū [The review of the performance evaluation development of state owned enterprises]. *Logistics Engineering and Management*, 3, 113-114.
- China Statistical Yearbook (2013). Retrieved from <http://www.stats.gov.cn/tjsj/ndsj/2013/indexeh.htm>. Accessed on 25.05.2014.

Du, Y. (2007). Jíyú huà sèlǜ dè fēixíng shìgù lǜ hé shìgù zhènghòu lǜ yùcè [Flight accident rate and the rate of accident symptom based on the theory of the grey prediction]. *Journal of China civil aviation university*, 25(6), 9-11.

Huang, W. (2014). Qìyè cáiwù fēnxīzhǐbiāoyǎnyòng [The analysis and utilization of enterprise financial indicators]. *Journal of changchun university of science and technology*, 27(3), 68-70.

Liu, J. F., & Xia, Y. (2005). Qìyè jìxiào píngjià dè lǜlùn yǎnyán fāngfǎ zōngshù [Enterprise performance evaluation theory and method reviewed]. *Economic of enterprises*, 6, 88-89.

Liu, X. F. (2012). Cáiwù fēnxīzhǐbiāo zài cáiwù guǎlǐ zhōng de zuòyòng [The role of financial analysis indexes in the financial management]. *Manager*, 13, 113.

Si, Y. (2011). Dui cáiwù fēnxīzhǐbiāo dè rènsī [Knowledge of financial analysis indexes]. *Modern Accounting*, 7, 46-47.

Wang, D. N., & Liu, X. M. (2009). Dui guóyǒu qìyè jìxiào píngjià zhǐbiāo tǐxì dè huígù yǎnkāo [A review of the performance evaluation index system of state-owned enterprises]. *Friends of Accounting*, 3, 63-65.

Yu, S. W. (2009). Dōngfāng hángkōng gōngshìshè huà tàobào zhī yánjiū [The research of the hedging of Eastern Airlines]. *Cooperative economy and technology*, 7, 83-84.

Zhang, J. X., Yu, H. T., & Xiong, J. B. (2006). Mínháng yùnshū qìyè shìshì quánwénhuà zhànlüè dè fēnxī [The analysis of the enterprises of civil aviation transportation to carry out the strategy of safety culture]. *Journal of China Safety Science*, 16(6), 79-85.