A QUALITATIVE STUDY OF THE EFFECTIVENESS OF EVA® IMPLEMENTATION IN CHINESE STATE-OWNED ENTERPRISES

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Abstract

EVA was recently introduced to Chinese state-owned enterprises (SOEs) as an innovative performance evaluation and management system. The aim of this paper is to shed light on the barriers and difficulties in the process of EVA implementation in China. Specifically, this paper investigates the effectiveness of EVA application in Chinese SOEs and the willingness of applying EVA by Chinese managers in SOEs. Based on interviews, it finds that EVA as a concept has been widely known at the senior management level, but less known at the divisional level. While divisional managers and employees are less interested in the EVA adoption as they do not see much benefits of employing EVA-based measures, senior managers view the adoption as a good opportunity to demonstrate the success of their leadership and discharge their accountability to the state. Senior managers also see the potentials of utilizing EVA as a control mechanism.

Key words: China, EVA®, management, performance, state-owned enterprises

JEL Code: M41, M21, P27

Introduction

In the 1990s, EVA® was introduced and registered by the Stern Stewart Company with a view to providing an alternative approach to assess company performance. The EVA-based

performance measure focuses on shareholder value and compensation of cost of capital, stressing the importance on value creation by the management for the owners. EVA is a financial evaluation method, considering net operating income, invested capital and weighted average cost of capital. It has close correlation with the market value added (MVA), which is the difference between the total amount of capital in a business and the current market value of the business. Many MNCs have since adopted EVA to evaluate business and divisional performance, addressing capital budgeting, goal-setting, and performance related pay and reward issues.

EVA was applied by the Chinese authorities in 2010 to state-owned enterprises (SOEs) as an innovative performance evaluation and management system. Since there has been little research investigating the effectiveness of EVA implementation in China. The aim of this paper is to shed light on the barriers and difficulties in the process of EVA implementation in China where the state dominates. Specifically, this paper examines the effectiveness of EVA application in Chinese SOEs to measure performance and the willingness of applying EVA by managers in SOEs.

This research uses interviews as the main data collection method and employs a qualitative research approach. Based on 9 interviews with managers from three SOEs, it finds that EVA as a concept has been widely known at the senior management level, but less known at the divisional level. The instruction from the authorities has been difficult to follow due to the characteristics of individual enterprises and the changing business environments. While divisional managers and employees are less interested in the EVA adoption and do not see much advantages of employing EVA-based performance measures, senior managers view the adoption as a good opportunity for them to demonstrate the success of their leadership and discharge their accountability to the state. Senior managers also see the potentials of utilizing EVA as a control mechanism. This research provides a number of business and policy implications.

Literature review

Basically, EVA is to measure the incremental return that the investment profit exceeds the market rate of return. In other words, EVA is an estimate of true economic profit that earnings surpass or less than the required rate of return. It is measured as: EVA = Net Operating Profit after Tax - (Total Capital Employed x Weighted Average Cost of Capital).[1]

Limitations of EVA have been identified in the literature. First, EVA doesn't fit for a horizontal comparison when firms have different size as it cannot control the size differences across plants or divisions (Weaver, 2001). Second, EVA may suffer from manipulation problems (Cordeiro and Kent, 2001) as EVA is an aggregation that depends on the financial accounting method of realizing profits and recognizing expenses. Through the changing of the decision making process managers can manipulate financial figures in order to achieve an artificially good performance. Third, the short-term orientation is another limitation of applying EVA in practice (Weaver, 2001; Ray, 2012). Forth, EVA, as the cumulative results based on financial data, cannot help find the actual reason of operating inefficiency as it only provides limited useful information about business process for managers (Cordeiro and Kent, 2001). Fifth, EVA is not suitable for being used under inflation to assess the true profitability as EVA only considers the historical value of the asset, ignoring its replacement value (De Villiers, 1997; De Wet, 2005).

The usefulness of RVA information in the stock market is still subject to further empirical evidence. While Biddle et al. (1997 & 1999) reveal that EVA is not much closely associated with stock return or firm value, Worthington and West (2004) and De Medeiros (2005) find that stock returns are affected by EVA information. Several studies show that EVA is positively correlated with MVA (e.g., Kumar and Sharma, 2011). However, Ramana

[1] The calculation process of EVA is a rather complicated because there is a need to make a large amount of adjustments. Stern Stewart claim that they have developed about 160 accounting adjustments which company needs to adjust the traditional accounting data to the measure of EVA.

(2004) claims that EVA is no more closely associated with MVA than other traditional performance measures, which was also supported by Kyriazis and Anastassis (2007). The controversy of the findings in the literature is largely due to the inconsistency of research methods and measures of variables in EVA and MVA quantifications.

While EVA was designed to encourage managers to perform better and make decisions adhering to the goal of shareholder value maximization (Chari, 2009), the literature recognises the limitation of EVA in this function. For example, the implementation of EVA could lead to double goal-oriented management decision problems. While EVA is in a dominant position (e.g., at the headquarter level), profit target is still a significant factor to consider in operating decision at the division level. Because of the different orientation between EVA measure and profit target, there are a series of difficulties and obstacles in the business management decision after adopting EVA (Young, 1997; Weaver, 2001; Zamia et al., 2005).

Research Method and Data

China set up the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) to performs investor's responsibilities, supervises and manages the state-owned assets of the enterprises that are under the supervision of the Central Government (excluding financial enterprises), and enhances the management of the state-owned assets. There were over 115 central government-owned enterprises (CGOEs) which are directly supervised by SASAC in 2012[2] when interviews were conducted. Each CGOE owns a number of subsidiaries of enterprises, companies and plants across the country. The research selects the 115 Chinese centrally-owned companies as the sample. Due to limited

[2] The official website of SASAC (the State-owned Assets Supervision and Administration Commission of the State Council) (http://www.sasac.gov.cn/n1180/n1226/n2425/index.html) lists these central government-owned companies. Due to restructuring and merges, the number of enterprise changes over years.

time and resources, this research adopts interviews conducted in three CGOEs located in Beijing, Jiangsu and Shandong. The semi-structured interviews were carried out in July and August 2012 by one of the authors. The interviews were conducted in Chinese. In order to extract more useful and richer information from interviewees, an attempt was made to explore deeper meanings behind each of their answers by asking an additional set of questions beyond the pre-designed interview questions. Each interview took about one hour, mostly in the interviewee offices.

Among nine interviewees, three interviewees worked at the headquarter office of CGOEs as senior managers; six were managers at local subsidiary level (two were at the executive level and four were middle-rank/divisional managers). Three of these interviewees were directly involved in the implementation of EVA and they are quite familiar with the concept and the operations of EVA.

The interview questions cover general issues (such as demographic information if not known, organisation background, EVA understanding) and more specific issues on the implementation of EVA (e.g., the effectiveness of implementation; methods used to calculate EVA; the difficulties of applying EVA)

Interview Analysis

First, we asked the interviewees EVA concepts and the significance of EVA implementation in their enterprises and operations. The majority of our interviewees knew the concept as they were told during business meetings and from company documents and personal reading. While a few interviewees could explain the advantages of using EVA as a performance measurement, most of interviewees expressed the view that it would take some time to recognise the significance of EVA implementation in their enterprises and operations. Five interviewees commented on the general problems of EVA including the inherent problems of traditional accounting, the difficulties to implement EVA in an imperfect market,

and the complications of EVA calculations and adjustments. Two interviewees admitted that they did not have much understanding of EVA, apart from the general concept.

Second, we intend to identify the incentives of applying EVA and obtain the views from interviewees about the benefits of applying EVA. Overall the interviews reveal that divisional managers and employees are less interested in the EVA application as they do not see much benefits of employing EVA-based measures. However, senior managers in the headquarter offices see this differently from interviewees that are based in subsidiaries. In the implementation process, most companies just follow the instruction from the SASAC and set 5.5% as the weighted average cost of capital. As this rate is much lower than the market-based cost of equity and even lower than the borrowing rate from commercial banks so the impact of EVA as a measurement of performance on CGOEs was very limited. As the benchmark was set so low, every company could easily reach it. Also, the SASAC's judgment of EVA-based performance is in principle based on whether EVA is above or below zero regardless of absolute values added. "*No matter EVA was high or low, as long as the figure was above zero we pass the assessment of the SASAC*" (interviewee 7). Once companies have passed the assessment, little attention will be given to further improvement of company performance. Owing to the low benchmark of the cost of capital, every CGOE can achieve a decent EVA and meet the expectation of the SASAC. There is overall no difference between better performed and worse-performed CGOEs based on the EVA calculations. Also, as CGOEs in the research sample do not actually benefit from the use of EVA as their employees and managers' pay and reward are very much determined by the central government in line with the pay of civil servants and government officials across the country. As there was no direct connection between performance and financial incentives, EVA as performance measurement does not add much value to improving performance and enhance value creation.

However, senior managers view the adoption as a good opportunity to demonstrate the success of their leadership and discharge their accountability to the state. Two interviewees worked at the headquarters show much positive about the EVA application. In China, there were some criticisms of SOEs and many people perceived SOEs did not contribute much to the Chinese economy and they were mainly subsided by the state. EVA can be used to quantify the contributions made by SOEs and show the success of SOEs. Politically, this is very important for China as a socialist country where SOEs remain the key force in the economy. Senior managers at the executive level of headquarters see the implementation of EVA as a good opportunity to demonstrate the success of their leadership and discharge their accountability to the state by showing the contributions to economy of their enterprise through value added. Moreover, as the application of EVA was recommended from the SASAC, many interviewees see it as a political responsibility to implement EVA and to show good results. The implementation itself was regarded as one aspect of their performance, which can affect their promotion and transfer.[3]

Third, the interviewees were asked about the difficulty of EVA implementation. Most of them refer to the resistance from professional accountants in the organisation. Three interviewees from subsidiary companies said they did not receive much support from their accountants. Most of the interviewees regarded accountants were the real driving force behind the successful implementation. Also, interviewees express some concern about the complication of EVA calculation and consequently the additional workload for accountants. One interviewee explained: "*the calculation process of EVA was very complex, which clearly increases the workload of accountants and they are not happy with this. When accountants are not happy, many things will become more difficult. Senior executives do not have many*

[3] Many senior managers in CGOEs were regularly transferred to other organizations or to different locations. It was very common that CEOs of subsidiaries at the provincial level were relocated from one province to another after three to four years.

ideas about the complexity and they have to listen to accountants" (Interviewee 2). Although CGOEs calculated EVA using the method recommended by the SASAC, accountants normally compute these adjustments according to their own practice. Owing to the discrepancy of industry, the allocation of profits and costs was different in the set of financial accounts; as a result this has an impact on the accuracy of calculation about EVA. Furthermore, in order to improve divisional EVA-based performance, line managers often manipulate the data and transactions and change the decisions which can affect the data. For example, line managers could choose to meet or delay customer orders in order to adjust operating income, purely for the reasons to ensure the positive outcome of EVA calculations. "*I was told by my accountant who is responsible for EVA in advance about key figures we need to satisfy the EVA requirement. I then made some adjustments about our sales and account receivables… For example, I usually give customers a decent incentive, which will increase our sales and account receivables*" (Interviewee 3).

Finally, the interviewees were asked about the impact of applying EVA on the relationships between headquarters and subsidiaries. Most interviewees do not see much impact as existing relationships are in general suitable given the environment and the need of central government. The accountability relationship of subsidiaries to headquarters is quite clear. Interviewees considered it would be very hard to change the relationship unless there was a fundamental change to China's existing economic structure. Four interviewees raised the possibility of utilizing EVA as a control mechanism by senior executives, which can affect the resource allocation, setting performance indicators, and assessment of long-term performance. As EVA was introduced from the top level without much consultation from local and subsidiary levels, it was possible other motives were behind the introduction. There were little opportunities for the people at local and subsidiary level to express opinions. This was considered by the interviewees as an obstacle to make EVA application successful.

Conclusion

EVA is a measure of a firm's economic profit quantifying as being the value created in excess of the required return of the investors (being shareholders and debt holders). It is widely regarded as the performance measure most straightforwardly connected to the creation of shareholders wealth over time. The very logic of using EVA is to maximize the value for the shareholders. EVA was recently introduced to Chinese state-owned enterprises (SOEs) as an innovative performance evaluation and management system. This study uses interviews to investigate to the effectiveness of EVA application in central government-owned enterprises to measure business and divisional performance and the willingness of applying EVA by managers.

The results show that EVA as a concept has been widely known at the senior management level, but less known at the divisional level. While divisional managers and employees are less interested in the EVA adoption as they do not see much benefits of employing EVA-based measures, senior managers view the adoption as a good opportunity to demonstrate the success of their leadership and discharge their accountability to the state. Senior managers also see the potentials of utilizing EVA as a control mechanism. Overall, the results might suggest that the adoption of EVA in China's SOEs was largely political-driven and the effectiveness as an economic performance measure was limited.

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