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EVA, refined EVA, MVA, or traditional performance measures for the hospitality industry?

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ABSTRACT

Stewart (1991) proposed economic value added (EVA) as a true measurement of a firm's performance and an executive's evaluation tool because EVA reflects only incremental values added to a firm after considering cost of capital. Kim [Kim, W.G., 2006. EVA and traditional accounting measures: which metric is a better predictor of market value of hospitality companies? Journal of Hospitality & Tourism Research 30(1), 34–39] examined EVA in the hospitality setting and concluded that EVA is not superior to other available measurements for accounting. However, this study contributes several improvements to Kim's (2006) study and compares the incremental explanatory power of six firm performance measures including EVA, refined EVA (REVA), market value added (MVA), and three traditional accounting performance measures for market adjusted returns. According to the findings, REVA and MVA are, apparently, valuable performance measures for evaluating hospitality firms.

1. Introduction

In the 1990s, the concept of economic value added (EVA) became a topic of considerable interest resulting in wide, financial economics literature research from various perspectives. Stewart (1991) proposed EVA as a firm's performance measurement and as executives' performance evaluation tool by arguing that EVA represents a firm's true performance because EVA reflects only incremental values added to a firm after considering cost of capital. *Fortune* published a cover story that discussed the benefits of EVA and a long list of major companies that adopted EVA as an evaluation tool (Tully, 1993). To verify such support for EVA, a major part of the EVA literature attempted to examine the superiority of EVA to traditional performance measurements (for example, Brossy and Balkcom, 1994; Chen and Dodd, 1997; Garvey and Milbourn, 2000; Lehn and Makhija, 1996) and the comparison also extended to a modified EVA (Bacidore et al., 1997). However, several studies found that EVA was not superior to other traditional firm performance measurements (for example, Biddle et al., 1997; Chen and Dodd, 2001; de Villiers, 1997; Kim, 2006; Weissenrieder, 1998; Zimmerman, 1997). Researchers, therefore, became less interested in the topic and EVA studies somewhat diminished in the literature.

However, EVA has found itself continuously used and examined in more variety of disciplines including not only finance and accounting, but also strategic management, marketing, and human resources (for example, Ezzamel and Burns, 2005; Fletcher and Smith, 2004; Mir and Seboui, 2006; Zinkhan and Verbrugge, 2000; Zinkin, 2006). Moreover, EVA research in the hospitality industry has also received various attentions from industry practitioners as well as academics. Kefgen and Mahoney (1996) showed the application of EVA as a new performance measure for incentive pay by illustrating Walt Disney's case. Before implementing EVA-based incentive plan, the hospitality consultants suggested hospitality firms develop a system that is easy to understand and is widely accepted by stakeholders in the company. Chow et al. (2003) conducted a survey of hotel managers and the respondents confirmed that adopting value-based performance measure such as EVA is more effective than traditional financial performance measures. They also provided useful guideline before implementing EVA as a hotel performance measure. For the restaurant industry, Aliouche and Schlentrich (2005) compared franchising and non-franchising restaurant companies in terms of their firm performance, estimated by EVA while Madanoglu et al. (2004) used EVA in illustrating value destruction phenomenon for airline companies in 1990s.

However, these studies did not explore the validity of EVA concept in a comparative and empirical manner, especially with

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other traditional firm performance measures until Kim (2006). According to Kim (2006), EVA did not explain market capitalization better than the other two traditional accounting measures: net operating profit after tax (NOPAT) and free cash flow (FCF). In general, this finding was somewhat consistent with previous EVA literature and might have reduced hospitality researchers' interest in examining EVA further in that particular context.

However, this study raises two issues regarding the EVA concept for the hospitality industry. The first issue is applying a refined EVA (REVA) concept developed by Bacidore et al. (1997) to the hospitality industry and the second issue is proposing improvements to Kim's (2006) research. Bacidore et al. (1997) developed REVA by arguing that assessing the capital charge on the market value of the firm (REVA) rather than on the economic book value of its assets (EVA). They regressed abnormal returns on EVA and REVA and found that REVA presented a stronger coefficient than EVA. Moreover, whereas REVA showed a positive sign, EVA demonstrated a negative sign. However, REVA, somehow, did not receive much attention in the literature possibly because the previous great interest in EVA quickly disappeared in the late 1990s, and REVA has never been applied to the hospitality industry. Therefore, this study adopts and examines REVA, particularly in comparison with EVA, and specifically to the hospitality sector.

While Kim (2006) made a contribution to the hospitality literature by introducing the EVA concept, several issues confound the study. For example, as the study acknowledged, it encompassed only one sample group, the entire hospitality industry, without further sub-sectors such as hotels, restaurants and casinos; the sample period was relatively short (1995–2001), and the data was not provided by Stern Stewart & Co., but estimated by the researcher. Stern Steward & Co. developed EVA and has been consistently producing the EVA data set. Given these issues, this study attempts to make several improvements on Kim (2006) by, for example, examining sub-sectors (i.e., hotels, restaurants and casinos) of the hospitality industry and using the data set from Stern Stewart & Co. for 1985–2004 (along with others discussed further in the following sections).

The study purpose, therefore, is to introduce refined EVA to the hospitality literature and compare it to EVA, market value added (MVA) and other traditional accounting measures (i.e., cash flow from operations [CFO], return on assets [ROA], and return on equity [ROE]) on market adjusted returns from each of three hospitality sectors (i.e., hotel, restaurant, and casino) and the total (all three hospitality sectors). When considering the hospitality industry's specificity and the argument, "EVA is better suited for industries such as food and beverages, which have lower volatility" (Milunovich and Tsuie, 1996, p. 112), this study has the potential to contribute meaningfully to the hospitality industry's financial literature. Next is a review of relevant literature followed by data and methodology sections. Findings and implications appear prior to a discussion of limitations and suggested future research which conclude the study.

2. Literature review

Stewart (1991) proposed EVA as the financial performance measure by arguing that EVA presents a company's true profit. A key component of EVA is to consider cost of capital in estimating the performance measurement; only when a company generates returns (i.e., NOPAT in EVA estimation) exceeding cost of capital (including both equity and debt), does a company's value become enhanced (Stewart, 1991, 1994). Ever since the introduction of EVA to the literature, many studies investigated the measurement by often comparing it to other traditionally used performance measurements, and naturally two groups of researchers emerged in the EVA literature: (1) proponents of EVA and (2) opponents to EVA.

In the early years of the EVA literature, the first group (proponents of EVA) seemed to prevail in the literature. Several articles from prestigious business trade magazines such as *Fortune* and *Forbes* praised the use of EVA and provided a list of top performers based on EVA data from Stern Stewart & Co. (Fisher, 1995; Lieber, 1996; Rutledge, 1993; Teitelbaum, 1997; Tully, 1993, 1994; Walbert, 1994). Through a series of trade magazine articles, EVA began receiving more attention from academicians. Several researchers presented findings regarding a relationship between EVA and MVA, and this relationship indicates: EVA explains a significant portion of MVA (Grant, 1996); EVA explains more variations of MVA when compared to some traditional accounting measures such as EPS, ROE, ROA and net income (Uyemura et al., 1996), when compared to NOPAT (O'Byrne, 1996), and when compared to EPS growth and free cash flow (Milunovich and Tsuie, 1996).

Another group of researchers investigated a relationship between EVA and stock returns. While Lehn and Makhija (1996) argued that EVA explains most of the variations in stock returns among its peer performance indicators such as MVA, ROE, ROA, and ROS, Chen and Dodd (1997) found that although EVA explains stock returns better than other accounting measures, the accounting measures such as earnings per share, return on assets and return on equity still provide significantly valuable information.

The second group, those voicing opposition in EVA literature, used a similar methodology, but found opposite results. Biddle et al. (1997) examined an explanatory power of EVA, accrual earnings, residual income and cash flow from operations on market adjusted returns, and revealed that accrual earnings showed a higher explanatory power compared to other performance measures including EVA. Chen and Dodd (2001) also compared an explanatory power of EVA for stock returns relationship to operating income (OI) and residual income (RI), and found that OI explained the most and EVA the least. Clinton and Chen (1998) also examined a relationship between performance measures including EVA, residual cash flow (RCF) and ROI-based measures, and found that RCF was the best predictor. In a context that examines a relationship between performance measures including EVA and MVA, Kramer and Pushner (1997) found that NOPAT explains more of the variations of MVA than EVA.

Contrasting these two groups, Bacidore et al. (1997) proposed the use of a refined EVA (REVA) in which market value of the firm's assets should be used in EVA calculations, rather than book value of assets because the capital charge for the firm is based on its market-based weighted average cost of capital (WACC). They compared REVA to EVA in terms of explanatory power for abnormal returns and found REVA to have better explanatory power than EVA. Following Bacidore et al. (1997), this study includes REVA in the comparison analysis with EVA and other accounting measures.

After many EVA studies in the mainstream literature, Kim (2006) compared EVA to other accounting performance measures (NOPAT and free cash flow [FCF]) in the hospitality setting. Kim (2006) examined the relationships among the three firm performance measures (EVA, NOPAT, and FCF) and market capitalization (MKTCAP) to see which performance measure explains the most about MKTCAP. From a multiple regression analysis, although EVA revealed a positive and statistically significant coefficient, the significance was less than NOPAT and FCF, and therefore, does not support EVA's superiority.

However, as briefly mentioned in Section 1, this study's focus is to reconcile and improve the issues others have with the results of Kim's study. First, this study introduces REVA proposed by Bacidore et al. (1997) as an additional performance measure to see if REVA is, in fact, superior in terms of explanatory power when