A Literature Review of Financial Performance Measures and Value Relevance

Nattarinee Kopecká

Abstract Performance measurement comprises several metrics and applications used as a benchmark in business sectors for both internal and external users. For managers, it expresses whether company's targets are reached and as a way of evaluating risks and returns for shareholders. A variety of performance measures are utilized to almost every operational process, and the area is rather vast. Therefore, the aim of the study is to find out what kinds of financial tools are better linked to market value. The result of the study shows that financial measures appear to be favorable measures for companies providing relevant and meaningful information to shareholders. Especially, return on investment (ROI) and earnings are significantly relevant to market value, while the superiority of EVA still remains unclear. Above all, companies still prefer traditional financial measures to other financial tools.

Keywords Financial measures • Economic value added • Market measures • Value relevance

Introduction

Company's sustainability is fundamentally derived from internal growth (profits) and external financial expansion (stocks, securities). Along with global trade, technological development and innovation are bringing great opportunities to business sectors at the same time reducing business' barriers for shareholders to access meaningful information. These circumstances are challenging as long as companies still confront risk and uncertainty due to high competition in the marketplace and increasing shareholder demands. In addition, shareholders more require insight a company's operational performance information to perceive a company's strategic orientation, risks, and returns. This information, however,

N. Kopecká (✉)
University of Economic, Prague, Department of Management Accounting,
Nam. W. Churchilla 4, 130 67 Prague 3, Czech Republic
e-mail: Sujira07@live.com

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should be measured and presented through efficient tools, and it must be relevant in order that firms will efficiently be able to convince shareholders of their prospects. In this regard companies are required to increase operational performance as well as the quality of measurement tools present results from transparent reports, confidential and transparent approaches and measures.

The establishment of accounting institutions and its regulation requires entities to transparently disclose their accounting numbers and meaningful information on financial reports. Firms' performance measures are therefore one of the important items because they present business's value by referring to the process of measuring firm's operational efficiency and effectiveness (Neely et al. 2005). Since performance measures consist of various tools, there are various ways to which these tools can be applied. It can be applied in the form of nonfinancial indicators such as operational effectiveness, corporate reputation, organization survival, and customer satisfaction (Richard et al. 2009) and/or in the form of financial criteria, which is used to measure accounting profitability such as revenue, operational expenses, earnings before interest and taxes, and/or financial ratio, return on equity, return on asset, etc. (Barney 2002).

A variety of performance measures are applied to almost every operational process, and the literature in this area is vast. The study, therefore, intentionally focuses on the value relevance of accounting information disclosed in financial reports to market values. The paper aims to find out what kinds of financial tools are better linked to the market value and whether it is frequently used by companies. Furthermore, the paper also describes the tendency toward accounting performance measures and value relevance from different sorts. Chapter "The Impact of Corpo rate Income Taxation on Location Choice of Investments: Separate Accounting vs. Formula Apportionment" outlines the structure of the paper. Chapter "Environmental Sustainability as a Determinant of Foreign Direct Invest ments: Empirical Evidence from Sweden" defines theoretical foundations of the performance measures and value relevant definition. Chapter "Are R&D-Active SMEs in the Emerging Markets Financially Constrained? Self-Evaluation Approach" devotes to the methodology of the study, and chapters "Tax Incentives for Innovative Small Business: The Russian Model" and "Relationships Between World Stock Market Indices: Evidence from Economic Networks" present results, discussion, and conclusion; I discussed the significant of performance tools and the potential benefits to future research.

Methodology

- The study is based on the theory background and relevant researches in the areas of performance measures disclosed in financial statements.
- The sample of the case studies and sorts of literature are specifically collected from the well-known and respected accounting journals investigating in performance measures areas from 2010 to 2016, which are available on open access.

- The procedures of the research's considerations are in crucial areas of theories, results, discussions, and suggestions.
- Comparing the important areas of financial performance is provided with accounting measures, economic value added reflecting in company market values in investors' views.
- The results are concluded by analyzing of the strength and weakness of performance measures in the main body of conclusion and discussion.

Literature Review

Corporate Performance Measures

The central growth of firm derives from their performance resulted from efficiency and effectiveness of their operational activities. This performance contributes firms' value to shareholders, who demand meaningful information on efficient measurement metrics. Generally, the definition of business performance and its measurements has been proposed different ways by a number of scholars and intuitions such as it is the process of measuring the actions, efficiency, and effectiveness and the application of measurement metrics to quantify the efficiency and effectiveness of actions (Neely et al. 1994). From this point of view, these measurements and its metrics should be integrated with all financial and nonfinancial dimensions, external and internal factors, as well as monetary and nonmonetary requirements, and the purpose of operational performance measurements highlights on measuring of financial elements reflecting the fulfillment of the economic goals of firms (Venkatraman et al. 1986).

In 1943, the term of performance measurement was introduced to business sectors after the application of the International City Management Association (ICMA) in the municipal activities (Ewoh 2011). Since then, a variety of performance measures are being used. In 1992, the BSC – one of the most popular measurement approach – had been introduced to the Harvard Business Review article as the tools for measuring both financial and nonfinancial of business performance (Kaplan et al. 1992). The measurement aligns firm's mission and strategy into a set of performance measures in four perspectives – operation, customers, financial, and growth perspectives – which believe that they cover all operational aspects and sufficient for shareholders for making better decisions. The approaches are used by top managers to help them formulate organization's strategy and to measure their operational performance (Kaplan et al. 1992).

Along with the application of nonfinancial indicators, financial performance measures are concerned as great issues of creating value to shareholders by associating cash flow and cost of capital. A large number of financial measures are employed; however, the great attention of researchers and firms still draw on traditional financial indicators. This circumstance corresponds with the disclosure of financial statements underlining both monetary and voluntary accounting information. The traditional financial indicators, which firms largely employed such as profit or loss, income statement line items -revenues, operating income, earning before tax and interest (EBITA), return on assets (ROA), return on equity (ROE), return on investment capital (ROIC), earning per share (EPS) and dividend per share (DPS) on which focus firms' performance from past activities. In addition, these financial indicators are critical for users because they reflect how well the strategy was followed, what goals could be reached and also the tendency of a firm strategic orientation. Several critics argue that these traditional measures are no longer adequate for shareholder due to backward-looking financial information and it is still unclear about the relevant between the earning information contained and market capital.

In 1991, the emergence of value-based measurement is called economic value added (EVA) proposed by Stern Stewart company asserting that it is a superiority performance measure (Stewart 1994). He claimed that the economic value added comes closer than other approaches to capturing the true economic profit of an enterprise (Stewart 1994). Steward also believes that EVA is the performance measure which is the most directly linked to the creation of shareholder wealth over time by deducting the cost of capital from its operating profit – adjusted for taxes on a cash basis (Stewart 1994). This approach can also be used as a tool for managers in operating a firm's performance, managing project, and calculating executive compensation. EVA is a useful approach that managers should be aware of the cost of capital before making decisions; however, the weakness can be seen when it is applied for long-term project due to its complication, cost, and benefit of its calculation.

Accounting Information and Its Value Relevance

Firm's ultimate aim is to maximize their value in order to maintain shareholders benefits and satisfaction (Black et al. 1998). To do so, they should provide validity, reliability, transparency, and value relevance of accounting numbers, which directly influence capital market values. Generally, value relevance of accounting information is a capability of making differences in the financial statements that shareholders can make better decisions on evaluating firm's value. It can be assessed its quality by measuring accounting numbers through reliable approaches and enhancing the strength of associations between market returns and earnings. Consistently, Francis and Schipper offer four interpretations of value relevance consisting of financial information influences stock price; financial information is relevant if it contains the variables used for a valuation model of assisting in predicting those variables and the association with financial information and prices or returns (Francis et al. 2003).

Company's value characterizes as amounts of accounting numbers that capture usefulness of information affecting users' discretion; however, the diversity of measurement tools provides different accounting information, and it depends on context and purposes. Accounting value relevance defines as information relating to equity making the discretion to users. Additionally, increasing value relevance associates with lower costs of equity, and then it attributes to investors perceiving value as contributing to lower risks (Francis et al. 2003). For investors, accounting information can be measured by employing valuation theory, and accounting theory reflected the relationship between accounting information and market value such as profit and stock price. Another suggestion, accounting valuation can be evaluated by applying the theory of accounting and standard setting to draw inferences about accounting numbers that purpose is to support standard setters (Holthausen et al. 2001).

Economic value refers to the notion of assets' value equals the future cash flow that can be gained from these assets. In economists' point of view, financial statements should provide information useful in making economic decisions that result from efficient allocations of EVA which is a trademark registered by Stern Stewart & Co. resources (Sortor et al. 2010). In fact, decision-makers are interested in determining how much they must surrender or give up (sacrifice) in order to receive something else that is presumed to be better (benefit) (Sortor et al. 1974). The market value is defined as the value of firms on the stock market which is an indication of investors' perceptions of its business prospects. Market value is the value of a firm on the stock market, and it is based on trade and investors' consensus beliefs about firm value. It is used by a publicly traded company, and it is obtained by multiplying the number of its outstanding shares by the current share price.

Discussion

The performance measures and its value relevance have been studied by many researchers all around the world of different businesses, yet the impact of the issues still affects shareholders, as well as the consensus of the study still has been not met. The paper, therefore, reviewed the performance measures and value relevance in the previous years among various kinds of business which are available on open access journals. The results of the review are the following: the study based on the model of corporate market valuation of nonfinancial indicators (human capital, knowledge, and the reputation of firms) applying among US firms from 2006 to 2009 shows that the model positively affects firms' performance, especially sales growth and net profit margin. They found accounting measures, particularly return on assets (ROA), are positively associated with the market value (stock price) (Alibad et al. 2013).

Going together, the study impact of intellectual capital on financial performance and market valuation of Indian companies shows that intellectual capital (IC) significantly influenced on company profitability. Especially return on equity (ROE) and ROA significantly relates to company profitability, whereas only return on equity (ROE) positively relates to market value (Kamath 2015).

Correspondingly, another researcher whose investigation is about the relevance of earnings and book value revealed that among 129 companies selected from 6 sectors in the Colombo Stock Exchange (CSE), found earnings, book value, and return on equity (ROE) have positive value relevance to the market value of securities (Pathirawasam 2010). The investigation into the application of traditional financial measure in the telecom company revealed that return on investment (ROI) is mainly used as an indicator establishing the link between the center's profitability and capital used (Almasan et al. 2010).

In contrast to the research on the relationship between EVA and market value among Indian companies, the result shows it is not distinct from its relationship. The research also highlighted that EVA is not as a superiority approach as the proponent's assertion, and only minority of Indian companies are applied. In contrast, the traditional measures such as return on investment (ROI), earning, and earning per share positively relate to market value (Bhasin 2016). In the same way, Knápkavá provided an overview of financial analysis tools which are most commonly used by the Czech and Slovak companies and shows that the companies prefer traditional performance measures, such as ROA, ROE, and ROI to value-based measure (EVA) (Knáplová et al. 2011). Similarly, Patel investigated the interaction between EVA and share price in India banks, collecting data from 2004 to 2005 and 2009 to 2010. The study found that EVA has no impact on share price except for Kotak Mahindra bank (Patel et al. 2012).

Other scholars studied the relationship between accounting measures and marketing measures and found that they have a slightly positive relationship. The researcher suggested that accounting measures and marketing measures cannot be equal measurement tools so that a firm should carefully construct the measurement by considering that accounting information represents past performance, while market performance represents strategies and actions influence investors' perception (Gentry and Shen 2010). While Shan suggested that even though accounting information is relevant to the stock prices, it is necessary to connect the impact of market earning per share (EPS), earnings decrease which is related to management value relevance (Shan 2014).

Another suggestion about the value relevance issues, the research explores for the most value relevance of financial measures among the common comprehensive set of financial tools including sales, earnings, comprehensive income, and operating cash flows. They found that there is no pattern of the most value relevant performance measure. The researcher suggested that a measure is more relevant when it captures directly and quickly information about firm's cash flows (Barton et al. 2010).

Conclusion

In the global trade, there are no barriers for investors to access useful information that is an ingredient of successful investments. In fact, not only this information but also a bearish market information reinforced by speculation and rumor have an impact on investors' perception. Generally, accounting information will be relevant if it captures the usefulness of accounting numbers in equity valuation, provided by firms on financial reports fairly measuring and presenting a company's situation. Even though a great attention is given in this research area, it remains the question that there are no absolute financial tools, while some of them assumed to overlap, and investors seem to access sorts of information conveniently; what is really relevant to their equity linking to market values? The paper reviews financial performance measures, namely, financial measures and value-based measure (EVA), reflecting market measures from different sorts which are available on open access.

The research found that the majority of the case studies still rely on traditional financial indicators, namely, ROI, ROE, and earning, although these tools appear a huge number of arguments about its applications. The research analyzed the interaction of financial indicators to market value (share price) especially ROI and earnings, which are extensively utilized by companies and appear to influence share price significantly. The major reasons might be due to its applications facilitating investors, forecasting, and estimating a firm's wealth of an investment. It also provides timely results, whereas long-term operational performance might be neglected that shareholders should carefully make judgments. Considering the advantage of using ROI is to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. Likewise, earning and ROE focus on return to shareholders of the company; however, shareholders should consider also the company's strategy and other related factors.

In contrast, the application of the value-based measures, namely, EVA, seems not as popular as its assertion. This circumstance might cause the complication from the usage and difficulty in making a comparison; this might reduce the investor's opportunity to analyze firms' potential in other aspects. Therefore, to provide useful and relevant information, firms should improve the disclosure of their EVA to the shareholders as well as disclose multiple performance measurement tools which will efficiently reflect firms' operational performance and effectiveness. Since a variety of performance measures are being used in every sort of business, these financial tools should not only reflect company's operational performance but also should provide transparency and real-time information under the regulation that is reliable for users and investors. What's more, companies should fairly disclose all materiality information in order to encourage better decisions. Otherwise, it might lead to critical problems such as the avoidance of accounting reports in compliance. This might prevent not only investors but also stakeholders of accessing to the perceptive financial information. The author suggests the future research in the areas of financial measures and value relevance that researchers should focus on comparing operational performance on the same sorts of business especially for intellectual capital which becomes the major cost of competition. Furthermore, in the area of performance, measures should be expanded to other related areas such as operational effectiveness, growth and a company's reputation, etc., which will provide other aspects of company performance.

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