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The effects of adopting the Balanced Scorecard on shareholder returns

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ABSTRACT

Many firms have adopted the Balanced Scorecard (BSC) as a way to implement strategy and measure firm performance. This paper uses a long-horizon event study methodology to examine the relationship between BSC adoption and shareholder returns. Using a matched pair design, we show that firms who adopt the BSC significantly outperform firms that do not adopt the BSC over a three year period beginning with the year of adoption. Our results are robust for different matching criteria. There is also evidence that firms earn greater excess returns after adoption of the BSC than before. These results provide strong evidence that the BSC is an effective strategic management tool that leads to improved shareholder returns.

1. Introduction

The choice of performance measures used in managing an organization is critical. Performance measures are an essential element in the evaluation of an organization's success, in achieving its strategic objectives, and in management compensation plans. Anthony and Govindarajan (2001, 441) state, "[t]he objective of performance measurement systems is to help implement strategy." Corporate executives are tasked with the development of strategies to maximize shareholder wealth and the choice of which performance measures to use in implementing those strategies.

Although useful, the limitations of financial performance measures have long been recognized. Financial measures tend to be backward-looking or historical. They are also too aggregated to use alone in managing the organization. For years executives have been combining financial and non-financial measures to overcome the limitations of using financial measures alone in managing their organization. The Balanced Scorecard (BSC) is a popular performance measurement system that combines the use of financial and non-financial measures. A Bain & Co. survey suggests approximately 50% of Fortune 1000 companies use the BSC (Calabro, 2001).

BSC proponents believe that its implementation reinforces the organization's strategy and aligns resources with strategic objectives. Management's strategic intent is communicated through the organization via the BSC, thus helping to align resources with strategies. Having the organization's resources coordinated and working towards common strategic objectives aids in the achievement of operational improvements. These operational improvements are believed to cause improved financial results and increased shareholder wealth in the long-run (Kaplan & Norton, 1996, 2001a,b,c).

While the ultimate goal of the BSC is to help executives maximize shareholder wealth, prior research has typically not examined the association between use of the BSC and shareholder returns. The one exception is Ittner, Larcker, and Randall (2003) which failed to find evidence of any association. Ittner et al. (2003) used regression analysis to study BSC users among financial services firms during the years 1997–1999. Our study examines adopters of the BSC in the three-year period following adoption. We use a long-horizon event study methodology and a matched pair design to examine the relationship between BSC adoption and stock market performance. Using data collected from an online survey, we identify 57 public companies that adopted the BSC during the period 1993–2002 and 107 public companies that do not use the BSC. We match firms that adopted the BSC with those that did not, based on various criteria including industry. The matching criteria yielded 38–42 matched pairs. We find that firms adopting the BSC significantly outperform their industry counterparts who did not adopt the BSC. Contrary to Ittner et al. (2003), our findings suggest that the BSC may be an effective tool for strategy implementation and driving performance.

The next sections identify prior literature and develop the research hypothesis. Section 4 discusses the methodology employed by this study. Section 5 discusses the results and Section 6 discusses the contributions and limitations of the study.

2. Literature review

Performance measurement systems dominated by financial measures have often been criticized (Ittner & Larcker, 1998b). Financial measures have been characterized as backward-looking, historical, aggregate, and too focused on short-term results. Non-financial

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measures are believed to be more predictive of future performance and more useful in "driving" performance. Increased competitive pressures, implementation of other programs like Total Quality Management (TQM), and the perceived limitations of traditional financial measures have led to increased usage of non-financial measures (Ittner & Larcker, 1998b).

Several studies have examined the value-relevance and predictive ability of non-financial performance measures. Examples include Amir and Lev (1996), who found, in the cellular phone industry, non-financial measures are value-relevant to investors. Ittner and Larcker (1998a) provide "some" evidence that customer satisfaction measures are relevant to the stock market. Banker, Potter, and Srinivasan (2000) found, within the hospitality industry, customer satisfaction measures are associated with future financial performance.

Some studies have examined the linkage between the usage of non-financial measures and future economic results. Said, HassabElnaby, and Weir (2003) found support for an association between the use of non-financial information in compensation contracts and both stock returns and return on assets. Ittner et al. (2003) found, in the financial services industry, more extensive use of non-financial measures is positively associated with stock returns.

The BSC is, however, not only a system of financial and non-financial performance measures. It is also a mechanism for translating the organization's strategy into operational terms (Kaplan & Norton, 1996, 2001a,b,c). It is believed to be an improvement over typical performance measurement systems employing both financial and non-financial measures because of the emphasis on linking strategy to operations.

Implementing the BSC requires management to develop coherent strategies to achieve their objectives and then to develop a set of measures for gauging the organization's performance in implementing those strategic objectives. The strategic intent formulated at the top levels of the organization must cascade downward and have an impact on the lower levels of the organization in order to effectively execute the strategy. The BSC is said to be helpful in this arena (Kaplan & Norton, 1996, 2001a,b,c).

A typical BSC includes key measures relating organizational performance and planned targets. Kaplan and Norton (2001a) prescribe a BSC that organizes measures into four categories or perspectives. They believe the BSC is the framework for organizing the firm's strategic objectives into these four perspectives or views (Kaplan & Norton, 2001a, 90):

1. Financial — the strategy for growth, profitability, and risk viewed from the perspective of the shareholder.
2. Customer — the strategy for creating value and differentiation from the perspective of the customer.
3. Internal business processes — the strategic priorities for various business processes that create customer and shareholder satisfaction.
4. Learning and growth — the priorities to create a climate that supports organizational change, innovation, and growth.

The BSC is intended to help define a strategy's cause-and-effect relationships in relation to the four perspectives. In theory, improvements in learning and growth measures (which represent the employees' perspective) should cause improvements in internal business processes which should cause improvements in customer measures; until finally, financial performance is improved. This cascade of cause-and-effect relationships suggests that improvement in the three non-financial perspectives will eventually lead to improved financial performance and improved shareholder returns. While Kaplan and Norton (1992) introduced the BSC as simply a performance measurement system, they later emphasized the link to strategy and the BSC's role in a strategic management system (Kaplan & Norton, 1996, 2001a,b,c).

Only one study, Ittner et al. (2003), has examined directly the effects of BSC use on stock market returns. They found no evidence that BSC usage is associated with stock returns, although they found evidence that combining the use of financial and non-financial measures is positively associated with stock market performance. Ittner et al. (2003), however, examined firms within a single industry — financial services. Examining a single industry has advantages when considering internal validity but hampers their ability to generalize results.

Ittner et al. (2003) collected 140 usable surveys. BSC usage was a dichotomous variable. BSC usage was "yes" if the survey indicated the firm "used" or "used extensively" the BSC and "no" if currently implementing, considering, or not considering the BSC. Two firms who implemented and abandoned the BSC were also coded "no". A total of 28 firms were deemed to be using the BSC. Stock market returns were gathered from the CRSP and Compustat databases for the time period contemporaneous to the survey. One-year stock returns were for fiscal year 1999 and three-year returns for 1997–1999. Using regression and controlling for organization size and growth opportunity (using the ratio of book value of assets to market value of equity), Ittner et al. (2003) failed to provide evidence of an association between BSC use and shareholder one-year or three-year returns.

Ittner et al. (2003) acknowledged the existence of a time lag between BSC adoption and improved performance and that their contemporaneous performance tests may not be appropriate. They performed additional tests using only firms that reported no measurement system changes in the previous two years. The results were reported in Table 9 of Ittner et al. (2003). Their total sample size dropped by nearly one-third, from 140 firms to 94 firms. Again Ittner et al. (2003) failed to find evidence of any association between BSC use and one-year or three-year stock market returns.

The Ittner et al. (2003) results are puzzling. Executives believe that the BSC leads to improved organizational performance as Hoque and James (2000) demonstrate. Hoque and James (2000) examined Australian manufacturing firms. They found support for an association between BSC adoption and perceived firm performance using survey data. A survey conducted by DeBusk and Crabtree (2006) also found firms adopting the

Table 1
Prior event studies on adoption of strategic management techniques

Study	Journal	Subject	Event study	Long-horizon	Matched pair design	Dichotomous independent variable	Dependent variable		
							Accounting measures	Market returns	Results
Cordeiro and Kent (2001)	American Business Review	EVA	Yes	No *	Yes	Yes	No *	No *	No
Easton and Jarrell (1998)	Journal of Business	TQM	Yes	5 years	Yes	Yes **	Yes	Yes	Yes
Haka et al. (1985)	The Accounting Review	Capital budgeting	Yes	4 years	Yes	Yes	No	Yes	No
Kennedy and Affleck-Graves (2002)	Journal of Management Accounting Research	ABC	Yes	3 years	Yes	Yes	Yes	Yes	Yes
Kinney and Wempe (2002)	The Accounting Review	JIT	Yes	3 years	Yes	Yes	Yes	No	Yes

*Used analyst forecasts as a dependent variable in a regression equation where EVA was a dichotomous independent variable.
**Adopters were broken out into less advanced and more advanced.