SOLVING THE MEASUREMENT PUZZLE

HOW EVA AND THE BALANCED SCORECARD FIT TOGETHER

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As shareholder activism intensifies, the primary questions that consume executives' time are: "How is my business doing, and how do I know whether my decisions today will create long-term value?" Not surprisingly, executive interest in performance measurement has reached a new peak.

Rumors of the simplicity of measurement are grossly exaggerated, which may explain the profusion of powerful new concepts in this area. These days, it seems that everyone has a new measurement tool.[1] In fact, executives have at their disposal EVA, MVA, TSR, and the Balanced Scorecard, among others.[2] Advances in technology, while increasing measurement capability, have added confusion rather than lent clarity. Thus the question remains unanswered: how do I choose the conceptual framework that works best for my company?

Shifting Paradigms of Value

Arguably, two concepts have received the most attention in the press, thereby capturing executives' imagination: Economic Value Added, or EVA, and the Balanced Scorecard. The number of articles mentioning either of the two concepts has grown exponentially from 1989 to 1997 (see Figure 2). Now virtually every major company in the US is at some stage of investigating or implementing EVA. *Fortune* magazine called it "today's hottest financial product" and the key to creating wealth.[3] Similarly, the Balanced Scorecard has grown in popularity since it first burst upon the management scene in 1993. It is estimated that 60 percent of large US corporations

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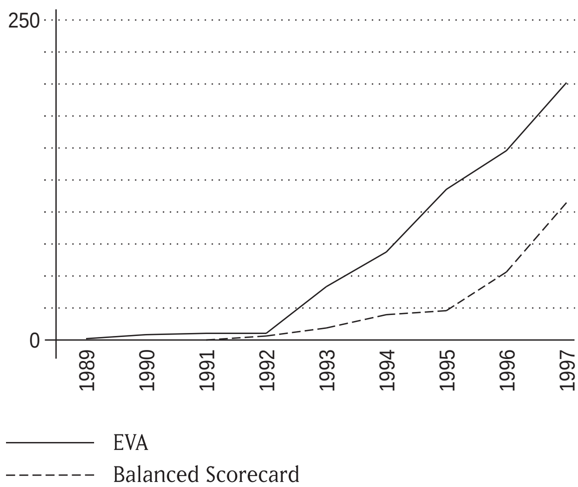
Figure 1

Shifting Paradigms of Value

1920s	1970s	1980s	1990s
Dupont Model	Earnings Per Share (EPS)	Market/Book Ratios	Economic Value Added (EVA)
Return on Investment (ROI)	Price/Equity Multiples	Return on Equity	EBITDA
		Return on Net Assets (RONA)	Market Value Added (MVA)
		Cash Flow	Balanced Scorecard
			Total Shareholder Equity (TSR)
			Cash Flow Return on Investment (CFROI)

Figure 2

References to EVA and the Balanced Scorecard in a Sample of Prestigious Business Journals (1989–1997)



use some version of a scorecard that integrates financial with non-financial measures.[4] Many of the top most consistently successful companies (e.g., AlliedSignal, Federal Express, General Electric, Wal-Mart, etc.) have adopted some form of balanced set of performance measures.[5]

While both methodologies can sharpen organizational focus, problems may occur when firms launch two parallel measurement initiatives with different champions. A Midwestern chemical company, for example, spent millions of dollars on an EVA initiative spearheaded by the CFO, while a similar amount was earmarked for a Balanced Scorecard effort championed by the head of the largest operating group. Yet these initiatives never intersected with each other, created organizational confusion and frustration, and as a result, were never fully implemented.

In this article we will investigate the question of whether the two measurement philosophies are reconcilable and, if so, how?

EVA Redux

EVA is an intuitive measure of financial performance that draws its power from a strong correlation with market performance. Essentially, EVA takes the current assets of a firm, and assigns a capital charge based on the total value of those assets and a measure of the firm's riskiness (see Figure 3). The more risky the venture, the higher the capital charge. This capital charge is then deducted from the earnings of the firm, and negative results indicate that the firm is

Figure 3

The EVA Framework Measures Performance by Adjusting Accounting Measures[6]

$$\text{EVA} = \text{Economic Earnings} - \left(\text{Economic Capital Employed} \times \text{Required Rate of Return on Capital Employed} \right)$$

not earning the return required by shareholders given the level of capital they hold and their risk. A negative return indicates a "destruction of shareholder value." A positive result indicates wealth creation—over and above the expectations of shareholders.

To illustrate, a biotechnology firm with no existing products has total equity plus debt of one hundred million dollars in 1997. The banks and the shareholders require a twenty-five percent return for use of their capital, given the riskiness of the venture. In 1997, the firm made zero profit. Thus, from the shareholder's perspective, the firm destroyed twenty-five million dollars' worth of value.

Armed with this measure of performance, management can take corrective action along a broad spectrum. It can divest underperforming businesses or assets, withdraw capital from activities producing inadequate returns, increase operating effectiveness without the use of additional capital, re-invest in high-performing businesses, or invest outside the core business. In our example, investors may choose to withdraw their capital.

In addition, EVA can, in principle, be cascaded down through the organization—a process sometimes referred to as Value-Based Management. As an example, a large refreshments company is militant in its adherence to EVA, and its share price outperformed the market 3 to 1 over the ten years from 1986 to 1996. It is not uncommon, in this firm, for the rank-and-file to ask of each other: "how does that idea add value?"

Interestingly, while an individual could theoretically calculate the idea's contribution to the firm's EVA mathematically, in this case, EVA's primary strength lies in its effectiveness in creating a culture of value consciousness.

Despite some spectacular successes such as the one mentioned above, it is not uncommon to find that EVA fails to become an integral part of a firm's culture. One reason is that EVA requires a level of financial literacy among operating managers that they may not have. And, even if managers understand EVA, life is rarely that simple. Management decisions need to be made in the larger context of a firm's strategy, and while economic analyses are necessary, they are not sufficient. As *The Economist* recently pointed out, EVA will never be able to explain why Bill Gates chose to embrace the Internet. "A stock analyst who bets on a company because he thinks the chairman is a genius may do better than the one looking for a positive CFROI."[7] The evidence, then, points to things beyond simple economics.[8]

Another reason EVA may fail to thrive is that EVA itself is an outcome measure. Consequently, it cannot be expected to drive organizational behavior. Since the true drivers of long-term value reside in the activities that employees perform daily, employees must become aware of how their actions impact value. Awarding employees 200 stock options may provide

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Figure 4

Balanced Scorecard for a P&C Insurance Company (Source: Kaplan & Norton)

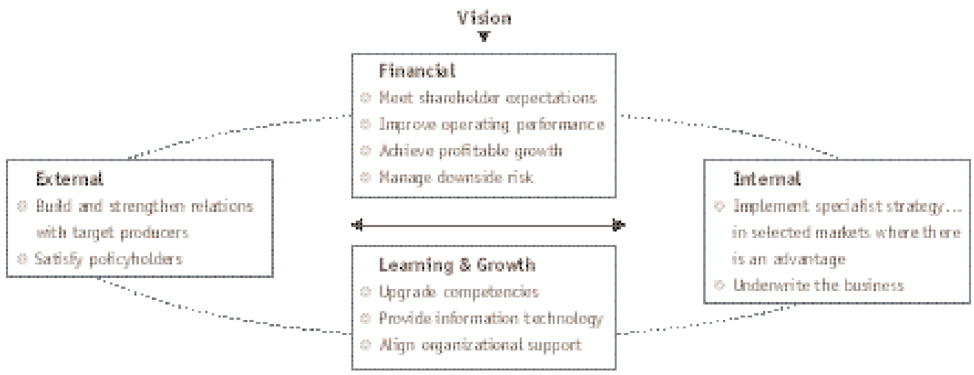

Figure 5

Which Non-Financial Measures Do Investors Value Most?

1. **Execution of Corporate Strategy**
2. **Management Credibility**
3. **Quality of Corporate Strategy**
4. **Innovativeness**
5. **Ability to Attract and Retain Talented People**
6. **Market Share**
7. **Management Experience**
8. **Alignment of Compensation with Shareholder Interests**
9. **Research Leadership**
10. **Quality of Major Business Processes**

a rational foundation for employees' commitment to EVA, but stock options will fail to motivate the right behavior if people do not understand, for instance, how a quick changeover can result in stock apprecia-tion. EVA must, then, exist within a larger universe—a universe that often includes non-financial measures.

The Balanced Scorecard, Anyone?

As articulated by Robert Kaplan and David Norton, the Balanced Scorecard is a management framework that measures the economic and operating performance of a firm. Executives have known intuitively for some time that the "short-termism" of traditional accounting principles can be counterproductive; thus, the score-card's emphasis on non-financial measures is a wel-come development. To executives, it simply makes good sense to manage the business with a balance of financial and non-financial measures. The Balanced Scorecard provides a conceptual rationale that includes four key perspectives: financial, external (e.g., customers), internal (e.g., business processes), and learning and growth.[9] (See Figure 4.) Hence the balance in Balanced Scorecard.

Unlike EVA, the Balanced Scorecard makes a com-pelling case for the inclusion of non-financial mea-sures in a firm's overall measurement system. The reality is that non-financial activities are a part of corporate life. Indeed, in a recently published study, Ernst & Young demonstrated that, on average, 30% of a stock analyst's recommendation decision derives from non-financial criteria (e.g., quality of management, or ability to execute on strategy).[10] (See Figure 5.)

The power of the framework, however, comes from a second "balance" that goes beyond an ad-hoc collection of financial and non-financial measures. Put simply, a scorecard has to tell the story of a firm's strategy, and, like EVA, that story is told by means of a cause-and-effect model that ultimately links all the measures to shareholder value. Non-financial mea-sures, such as customer retention, employee turnover, and number of new products developed, belong to the scorecard only to the extent that they reflect activities a firm performs in order to execute its strategy, and thus, these measures serve as predictors of future financial performance.

Grasping the Intangible, pg. 18

As firms look for better ways to measure and manage performance, two approaches are proving popular: EVA and the Balanced Scorecard. EVA has the positive effect of focusing the organization on producing value for shareholders, but can be difficult for employees to translate into daily behaviors and decisions. The Balanced Scorecard does engage the organization, by focusing on the non-financial measures that are "leading indicators" of success. But it does so at the expense of some measurement rigor.

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Yet a third "balance" comes from the fact that a Balanced Scorecard needs to include both leading and lagging measures. Lag measures reflect outcomes such as net income; leading measures, by contrast, tend to reflect drivers of performance (e.g., hours with customers).

A weakness of the scorecard is that often the cause-and-effect linkages between measures cannot be firmly established using traditional mathematics and statistical techniques since, by definition, the Balanced Scorecard takes a non-linear, systems perspective. Thus the link between customer satisfaction and revenues may be somewhat of a strategic mantra for some growth-oriented firms, but it is not as clear-cut as that between spending on office supplies and the income statement.

Why Can't We All Live Together?

Our own recent experience with clients suggests that the Balanced Scorecard and EVA philosophies complement each other quite effectively. Both provide consistency and focus. Similarly, both can be linked to the budgeting and planning processes, and both can be cascaded down from corporate to the business unit and even to the individual level. The Balanced Scorecard, however, has the advantage of being holistic or systemic, and people can understand it without a finance background. EVA's advantage is its mathematical precision and strong linkages. By combining the strengths of the two, we end up with a stronger, more robust framework with increased predictive power.

To illustrate, we would point to the experience of a leading manufacturer and marketer of cleaning products, which undertook a Balanced Scorecard initiative in the context of a larger business transformation effort at a time when it faced severe financial difficulties. Executives of this company have achieved a remarkable turnaround, with growth in the double-digits—something that was hard to predict just three years ago. At that time, the CEO was wedded to running the company with Total Shareholder Return (TSR), which he then abandoned in favor of EVA because of EVA's relative simplicity.

Although EVA was an improvement over TSR, it failed to register emotionally with the workforce because to the rank-and-file, it really was not obvious how EVA connected to their day-to-day work activities. As a result, the CEO launched a scorecard initiative, which by definition would have more clear-cut connection to operational processes; yet he wondered how EVA and the scorecard could indeed co-exist. The solution was straightforward. EVA simply became the key measure populating the financial perspective of the scorecard, and provided a financial underpinning for measures in other perspectives.

EVA alone had failed to rally the troops because it was seen as a bit of management trickery that would benefit the top brass. However, placed within the Balanced Scorecard, EVA began to make sense as people understood its relationship to non-financial

A Blueprint for Change

Welcome to the Conversation, pg. 4

Some firms have implemented both EVA and Balanced Scorecard approaches simultaneously—not always with great results. The two are compatible, however; in fact, the combination can be more powerful than either approach taken alone. The key is to use the Balanced Scorecard as the integrating framework, and use the EVA approach to create the "financial measures" it calls for (one of four types of measures that must be "balanced" in the scorecard).

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measures. Today, the Balanced Scorecard is an essential part of the management process, and EVA is just one piece of it. While some measures at the company are linked mathematically to EVA, others have a more implicit link.

Executives of this company are passionate about the role of the scorecard in the turnaround. They believe strongly that the scorecard provided focus, gave them a common language, and connected the proverbial boardroom with the shop floor. At the time of this writing, the company has even developed personal scorecards for each employee, all linked to the overall corporate scorecard.

At another company, the scorecard became the center of a decision support system. This company has a rich EVA tradition, and an active Value-Based Management program. When confronted with a decision to build a large decision support system that would provide measures to managers making decisions, it found that EVA was not helping the process since EVA is an economic measure, plain and simple. As an alternative to EVA, the company then chose the scorecard as an integrating framework—with EVA at the top. Putting EVA at the top of the scorecard clarified their confusion, and allowed them to assemble all the pieces of the puzzle.

Another reason the scorecard works well as an integrating framework is the way it is built. In building the scorecard, the process is just as important as the content. For it to be effective, the scorecard needs to involve the entire executive team, not just the CFO, the financial controllers, and their team of whiz-kid financial consultants. Thus the scorecard builds executive teams and breaks down organizational silos. A scorecard devoid of process will be sterile, and will fail to mobilize either the executive team or the rank-and-file.

Combining the scorecard with EVA is relatively straightforward, as the following example will illustrate. In this case, a fast-food franchiser was challenged to implement a new "value" strategy aimed at revitalizing its once vibrant business. As Figure 6 shows, with EVA as the top financial measure, the financial drivers are clear. Note that two elements of EVA (Capital and NOPAT) are firmly ensconced. However, a third element of EVA, namely the cost of capital, is *not* included. This is because in the example model, we have followed the Balanced Scorecard philosophy of including only those areas in which a company must excel to differentiate itself from the competition.

On the expense side of the model, there is a clear convergence between the scorecard and EVA philosophies. On the revenue side, on the other hand, all the drivers are those that would come out of a scorecard analysis. Even so, there are clear linkages between

One firm's approach to combining EVA and the Balanced Scorecard is instructive. This fast food restaurant chain uses EVA as its ultimate measure of financial success, but also measures non-financial performance in areas equivalent to the scorecard's categories: people, process, and customer. Management has modeled how the non-financial performance it tracks fuels the financial performance, essentially creating a single-frame picture of its business strategy. For individual employees, this picture is valuable; it makes clear how daily activities lead to value for shareholders, and keeps everyone aiming toward that same, important goal.

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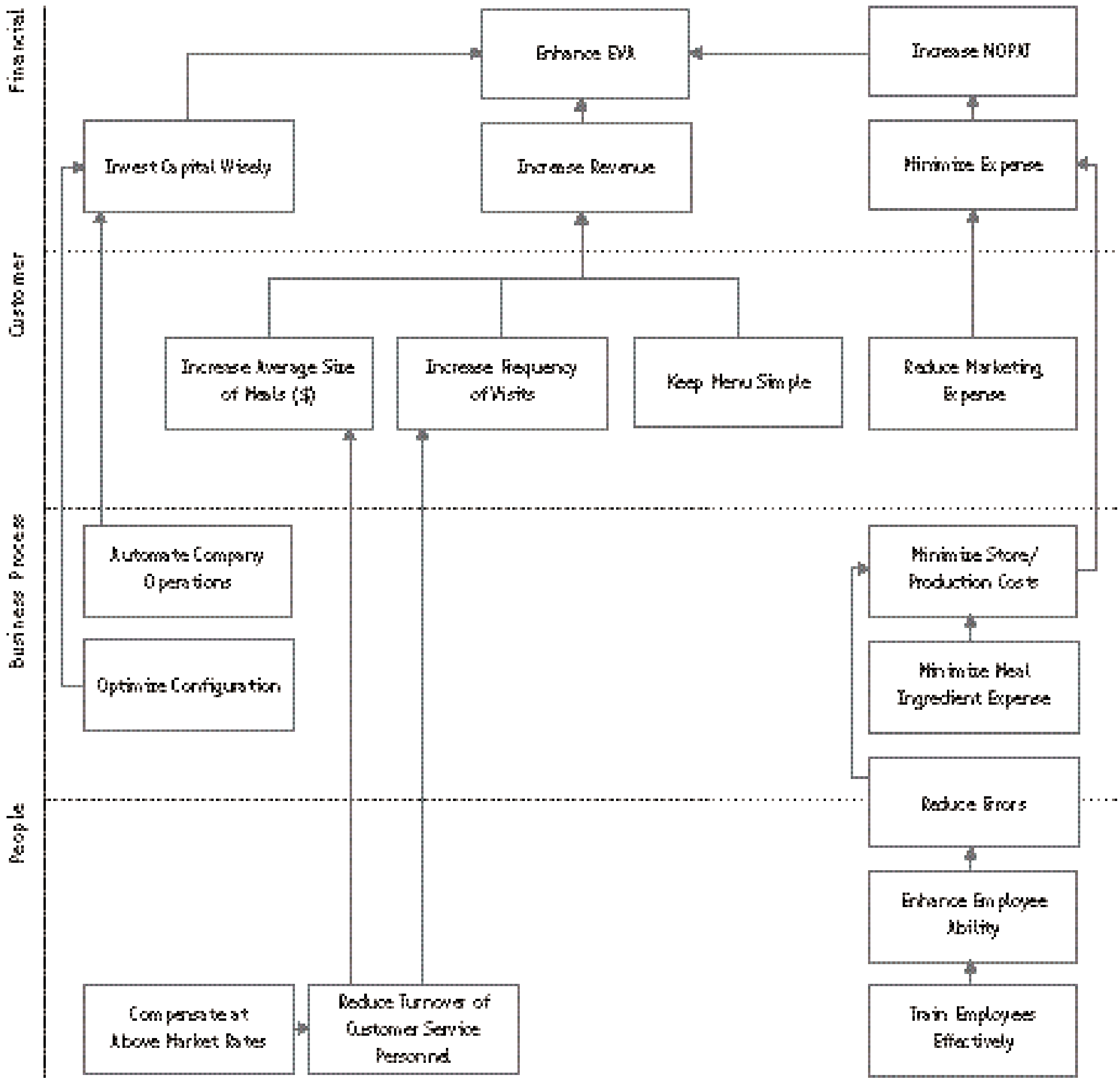
Figure 6

A Combined EVA and Balanced Scorecard Model for a Fast-Food Franchiser



the revenue and expense sides. For example, part of the value strategy required that the fast-food franchiser simplify its menu, which had implications for both revenue and expense. While some of their objectives, such as better training, increased employee ability, and reduction of errors, come directly from the scorecard approach, in this case it is clear that they also lead directly into traditional EVA measures, such as store/production costs and total firm expense. Ultimately, our fast-food franchiser has described, on a single page, the story of its strategy.

By integrating both EVA and the Balanced Scorecard, the fast-food franchiser was able to create synergies that overcame the weaknesses of the individual methodologies. Had EVA alone been used, a manager would have trouble making trade-offs among alternative strategic objectives. For instance, in a business that lives and dies based on customer service and relationship management, a manager would consistently make the trade-off between a happy customer and a saved dollar in favor of the former. An EVA model would not help an individual make this strategic trade-off. In contrast, had the Balanced Scorecard alone been used, the connection between a happy customer and EVA would have been less robust.

We have discussed several of the benefits and concerns associated with two of the most popular performance measurement frameworks: the Balanced Scorecard and Economic Value Added. We have also explored how the two philosophies might fit together, and illustrated with some examples. Our conclusion is that the Balanced Scorecard can be used quite effectively as an integrative mechanism for operationalizing a strategy, and that EVA is a powerful financial measure that can fit perfectly into the scorecard framework, while at the same time lending mathematical precision. In the end, it appears, we all *can* live together.

1 Figure 1 illustrates the evolution of measurement concepts over time.

2 Economic Value Added, Market Value Added, Total Shareholder Return. EVA and MVA are trademarks of Stern, Stewart and Co. Total Shareholder Return is a concept developed by the Boston Consulting Group. The Balanced Scorecard was developed by Robert Kaplan and David Norton.

3 See "The Real Key to Creating Wealth," *Fortune*, September 30, 1993.

4 "Flying With a Clear View," *Financial Times*, London Edition; April 1, 1997.

5 Wade, "Measuring Performance with a Balanced Scorecard," *Managers Handbook*, July, 1997.

6 Source: Stern, Stewart and Co.

7 *The Economist*, "A Star to Sail By?," Aug. 2-8, 1997, pp. 53-55.

8 EVA is not the appropriate financial measure for all strategies. For instance, for a growth strategy, too much focus on EVA might limit investment, and retard growth. Thus the *Economist's* reference to Bill Gates's decision to invest in the internet.

9 Robert Kaplan and David Norton, "Balanced Scorecard: Measures That Drive Performance," *Harvard Business Review*, Jan/Feb, 1992.

10 Source: "Measures That Matter," a special report by the Ernst & Young Center for Business Innovation, 1997, pg. 7.