

## Balanced Scorecard in Corporate India: From Philosophy to Practice



Financial measures have traditionally been used to evaluate corporate performance especially of industrial age corporations. However, it has been realised that non-financial measures also affect the corporate performance, particularly of knowledge age corporations. In view of this, it has been realised that an approach striking balance between financial and non-financial measures and short-term and long-term goals would be more appropriate to evaluate corporate performance. Such an approach has been dubbed as the 'Balanced Scorecard (BSC)' which includes performance measures for four perspectives: financial, customer, internal business processes, and learning and growth (innovation). The adoption of the BSC has been on increase in the corporate world including India with a relatively recent adoption of the BSC and that too with mixed experiences. Nonetheless, the BSC adoption rate in India (45.28%) compares quite favourably with that in the US (43.90%). So far not much research work has been done on the BSC in corporate India and as such our knowledge and understanding about BSC in the Indian context has been inadequate. Against this backdrop, this article makes a modest attempt to investigate the BSC in corporate India from its philosophy to practice. Also covered are the problems faced and the prerequisites for the successful implementation of the BSC in India.

It has been a common and traditional practice of companies world over including India during the industrial age environment to measure their performance by financial measure, i.e. profit. Profitability measurement in terms of return on investment, return on sale, return on capital employed, earnings per share, etc. are, what Pandey (2005: 52) considers, the "bottom-line" results used to measure the performance of companies. But, the financial performance of a company is characterised by the features like 'historic in nature,' 'after-the-events,' or 'lagging' which depend on numerous events that would have occurred months or years before and over which company did not have any control at present. Performance improvement being a critical component of the strategic planning process, financial performance measure lacking in futuristic look prove inadequate for strategic planning.



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**T**he critics argue that it is not easy to achieve balance between the financial and non-financial measures because at times one measure might be more effective than the other. For example, increase in profit depends on revenue growth and cost reduction. The fact is that revenue growth results mainly from non-financial variables like the quality of products, after-sale-service, aggressive marketing, etc. ”

However, the relevance of financial measures has been questioned in the information age environment when companies are building internal assets and capabilities. The major problem with financial measures is that they do not directly focus on non-financial variables otherwise very critical in affecting company's financial performance. For example, a financial decision of cost cutting on research and development (R&D), employees' training, and after-sale services might, no doubt, benefit in short-run at the cost of long-term customer satisfaction. Thus, it means that non-financial indicators ultimately affect the financial indicators. In view of this, a good performance appraisal measurement system should incorporate the measurement of lagging, current, and leading indicators of companies. This realisation has necessitated growing concern among companies worldwide to measure performance based on both financial and non-financial measures, which is dubbed as the 'balanced scorecard'. The concept of BSC initially originated in the USA during 19<sup>th</sup> century and is of a relatively recent origin in India. In this article, we shall investigate the philosophy and practice of balanced scorecard in corporate India.

### What is Balanced Scorecard (BSC)?

In simple words, BSC refers to inclusion of both financial and non-financial performance measures together in a sheet to measure corporate performance. Dr. Robert S. Kaplan and David P. Norton who developed the concept of balanced scorecard have defined it as follows:

*"The balanced scorecard retains traditional financial measures. But, financial measures tell the story of past events, an adequate story for industrial-age companies for which investments in long-term capabilities and customer relationships are not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey those information-age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation"* (Kaplan and Norton 1996).

Some scholars (Dinesh and Palmer 1998: 363) consider BSC as an improvement over Management by Objectives (MBO). Call it by any name, BSC is a performance evaluation measure of combining financial and non-financial measures of performance of a company in one single scorecard. It measures the performance of a company in four perspectives: learning and growth (innovation), customer, internal business processes, and financial. More perspectives such as social responsibility, environmental concerns, and employee concern may be possible candidates to be considered for collecting data to develop an appropriate BSC.

### Philosophy behind Balanced Scorecard

The rationale behind the philosophy lies in the fact that you cannot drive a car solely relying on a rear-view mirror. The performance of a company should not be measured and evaluated based on significant perspectives. Research studies also report that the effects of other perspectives ultimately boil down to the financial performance of an organisation (Venkatraman and Ramanujam 1986: 801-814).

It is against such backdrop that the balanced scorecard (BSC) was developed to provide a framework for selecting key performance indicators that supplement traditional financial measures with non-financial operating measures such as learning and growth activities, customer satisfaction, and internal business processes. It links short-term operational controls to the long-term vision and strategy of the organisation. Research findings report that the use of both financial and non-financial measures help firms perform better (Dale 1996: 65-66).

One argument that the proponents of the BSC make in its support is that it aligns with strategy leading to better communication and motivation at all levels of organisation, which, in turn, leads to more and better performance. The BSC as an effective and inclusive measure of organisational performance has been gaining increasing popularity in the corporate world, including in India.

1. The BSC is a comprehensive and holistic method to evaluate organisational performance to better understand the customer requirements and performance gaps.
2. The BSC aligns business strategy with business vision and helps better realise the vision through continuous improvement in all aspects of organisational performance.
3. The BSC is a complement and even improvement over the Management by Objectives (MBO) and Total Quality Management (TQM).

That the financial measures do not seem genuine performance measures are supported by the fact that the top 10 performance measures in Japan do not include any financial measures.

### The BSC: A Critique

However, the BSC is criticised on various grounds but not confined to the following only:

1. The critics argue that it is not easy to achieve balance between the financial and non-financial measures because at times one measure might be more effective than the other. For example, increase in profit depends on revenue growth and cost reduction. The fact is that revenue growth results mainly from non-financial variables like the quality of products, after-sale-service, aggressive marketing, etc. As regards cost reduction, it also depends on mainly non-financial variables like material acquisition and handling, power usage, labour productivity, cycle time, maintenance, etc. Thus, achieving balance between the financial and non-financial measures is not justifiable (Pandey 2005: 62).
2. The BSC as a comprehensive performance measure also does not cover all aspects of an organisation such as employees, suppliers and community's contribution and employees' commitment and motivation in organisational performance (Smith 1998: 34-36).
3. Since the BSC is largely based on 'empiricism,' it, therefore, suffers from mismatch between the theory and practice (Norreklit 2000: 65-88).
4. The opponents of the BSC also argue that the implementation of BSC is subjected to doubt as most of the employees in organisations are not well aware of its philosophy itself.

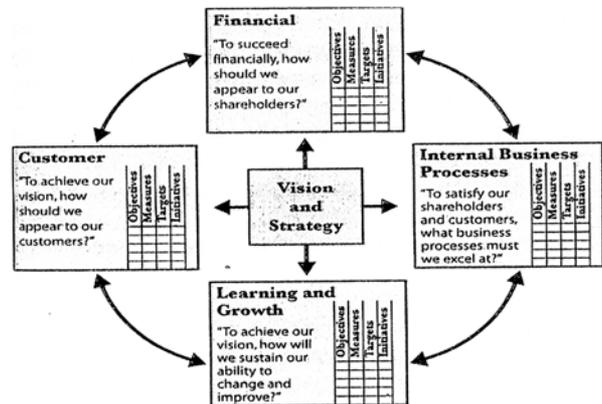
### Aspects of the BSC

The common model of the BSC, as developed by Kaplan and Norton (1996), evaluates organisational

**T**he history of BSC in India is short and there have so far been limited studies on BSC in India with mixed experiences (Batra 2006: 7-27). Among the most renowned companies in India that have adopted the Balanced Scorecard are: Godrej – GE Appliances Limited, Goodlass Nerolac Paints Limited, Philips Electronics, Infosys Technologies, Tata Consultancy Services, Castrol India, Taj Group or India Hotels (Singh and Kumar 2007).

performance on four perspectives; customer, learning and growth, internal business processes, and financial. Each perspective includes specific objectives, measures also called metrics, target values of those measures, and specific initiatives to be taken to achieve the set targets.

### Four Perspectives of Balanced Scorecard



Source: Kaplan and Norton 1996.

A brief mention about each of these perspectives seems pertinent.

**Customer Perspective:** Organisational existence and success or otherwise largely depend on customer satisfaction resulting in more demand for products, more revenue, and finally more profits, i.e. financial performance. This necessitates the organisations to know: How should we appear to our patrons-customers? How do they actually find us? Accordingly, the most critical and crucial indicators under customer perspective are customer satisfaction, customer retention, customer profitability, and market share of the organisation.

**Learning and Growth Perspective:** In the continuously changing business environment, human resources need to learn new knowledge to adapt to changes and sustain it. This underlines the need for employees' training and development of internal capabilities of human resources to remain capable and competitive in the corporate world. For this, organisations need to ask and answer some vital questions like: Are our human resources capable and innovative enough to sustain and manage continuous changes and improvements in business environment? Are we creative and innovative enough to continuously create and add value for our esteemed customers? Accordingly, the key indicators of this process for determining metrics include

employee satisfaction, employee commitment and involvement, employee retention, and finally employee performance.

**Internal Process Perspective:** This primarily refers to issues relating to production process ensuring the quality of goods and services offered to meet the customers' requirements, creating value for them, and giving customer delight. Accordingly, this perspective addresses various crucial issues like: Are our business processes up to the mark as per the requirement of the time? What are still weak areas, if any, that need improvement? This requires organisation to determine metrics for the internal processes including cycle time, quality performance, productivity, after-sales services, attending customer complaints, etc.

**Financial Perspective:** The financial performance is affected by non-financial measures such as customer satisfaction, employee training and development, and quality improvement in production process. Therefore, one major question an organisation needs to clearly answer is: How does and should the organisation appear to its shareholders? To answer to this question, organisation needs to determine certain metrics such as profit margin, return on capital employed, return on investment, and value of per share.

Each perspective includes four elements: objectives, measures, targets, and initiatives. A brief mention about each of the four elements follows:

**Objectives:** The organisation sets specific objectives to be achieved under each perspective. Setting a specific objective of creating customer delight may be specific objective set under the customer perspective.

**Measures:** Measures also termed as 'metrics' are the indicators used for measuring progress in achieving the objective. For example, the profitable growth under the financial perspective might be measured by increase in profit or increase in share price.

**Targets:** Targets are values in quantitative terms to be used for measuring the achievement of the objective. Determining that during the next five-year period profits should increase at 5% per annum, might be an example of targets.

**Initiative:** Initiatives are thoughtful and deliberate actions and efforts needed to be taken to achieve the targets. For example, imparting training to sales personnel on customer relationship to achieve a 5% growth in sales in the next two years may be the examples of initiative.

### How to Build and Implement the BSC?

The building and implementation of BSC as an effective measure to transform organisational mission and vision

**I**nfosys Technologies Ltd., one of the world's top IT companies, also implemented the BSC. The underlying philosophy behind using BSC in measuring performance was to follow a holistic approach towards implementing strategy since in an organisation every function is important and no one role is less significant than the other. Major benefits were derived by Infosys Technologies Ltd. by implementing a BSC framework. ”

into reality involves a nine-step process as discussed below:

- 1. Assessment:** The development of the BSC begins with an assessment of the organisational mission and vision, challenges, driving forces, culture, and values and communication of the same across the organisation.
- 2. Strategy:** In step 2, the business strategy is designed to align business activities with organisation's mission and vision.
- 3. Objective:** At this step, the specific objectives to be achieved are set for each perspective of the organisation. In order to transform objectives into reality, these are set up in SMART approach based on the logic: "You cannot improve on what you cannot measure." Finally, the objectives of all perspectives are merged together to develop one wholesome set of strategic objectives for the organisation as a whole.
- 4. Strategy Map:** In step 4, a map depicting organisation's strategies called 'strategy map' is developed to ensure the smooth implementation of strategy. The strategy map shows the specific ways by which an organisation actually creates value for its customers and stakeholders.
- 5. Performance Measures:** At this step, performance measures are developed for each of the enterprise-wide strategic objectives based on both lagging and leading measures.
- 6. Initiatives:** In step 6, perspective-wise suitable initiatives are developed to translate the business strategy into reality.
- 7. Automation:** As the nomenclature of step itself denotes, the implementation process starts in an automatic manner. Performance measurement software is applied to get the right performance information to the right people at the right time.
- 8. Cascade:** In this step, the organisation-level scorecard (First Tier) is 'cascaded' down into business scorecards (Second Tier) and then to team and individual scorecards (Third Tier). The rationale behind cascading scorecard lies in the

fact that it translates high-level strategy into lower-level objectives, measures and operational details.

9. **Evaluation:** In this last step, the scorecard is now evaluated considering the issues like: Whether organisational strategies have been effectively working or not? Whether we have been measuring the right things in right manner or not?

### BSC in Corporate India

Though the phrase balanced scorecard was coined in the early 1990s, the roots of this type of approach are quite deep. These include the pioneering work of General Electric on performance management reporting in the 1950s and the work of French process engineers (who created the *Tableau de Bord* – literally, a “dashboard” of performance measures) in the early part of 20<sup>th</sup> Century. Hepworth (1998: 559-563) has studied the application of the BSC in the UK to achieve ‘competitive advantage.’ Joshi (2001: 85-109) has also reported that corporate India was under compulsion to adopt contemporary management techniques including the BSC in order to ensure the survival and maintain the competitive advantage in today’s highly competitive business environment. Recognising the strategic relevance and significance of the BSC, increasing number of organisations has been using the BSC as a measurement and management technique world over including India (Gupta, Sarkar and Samanta 2004: 43-52). That the nitty-gritty of the BSC can be better understood by having the knowledge of experiences gained by corporations using the BSC in India, we are presenting here the practice of BSC in some organisations in India and feedback on it.

The history of BSC in India is short and there have so far been limited studies on BSC in India with mixed experiences (Batra 2006: 7-27). Among the most renowned companies in India that have adopted the Balanced Scorecard are: Godrej – GE Appliances Limited, Goodlass Nerolac Paints Limited, Philips Electronics, Infosys Technologies, Tata Consultancy Services, Castrol India, Taj Group or India Hotels (Singh and Kumar 2007). A research study conducted by Anand et.al. (2005: 11-25) about the state of BSC adoption in 53 companies revealed some interesting findings:

- The Balanced Scorecard adoption rate is above 45% in corporate India which compares favourably with 43.90% even in the US.
- The financial perspective has been found to be the most important one (87.5%) followed by the customer perspective (66.6%), internal business perspective (54.2%) and learning and growth perspective (54.2%) in that order. As regards

performance scorecard with respect to environmental and social perspectives, the Indian companies have been found monitoring the indicators as per ISO 14000 norms.

- The establishment of the cause and effect relationship among perspectives has been found the most critical aspect in the implementation of BSC in Indian corporations.
- Most companies recognised that the implementation of the Balanced Scorecard has proved useful in cost reductions and the bottom line improvement.

In a research study on management accounting practices of 14 Indian firms, the researchers found that the maximum significance in gathering information was assigned to the aspects such as customer satisfaction, competitors’ performance, and internal process in that order (Anderson and Linen 1999: 379-412). In another study covering 60 large and medium-sized manufacturing firms working in India, it was found that financial measures such as return on investment, variance analysis, and budgetary control were assigned greater significance and customer satisfaction and other non-financial measures moderate significance in performance management and evaluation (Joshi 2001: 85-109).

The Commercial Vehicle Business Unit (CVBU) of Tata Motors, the first Indian company to have implemented the BSC in India, was inducted in the Balance Scorecard Hall of Fame offered by the Balanced Scorecard Collaborative, Inc. The implementation of the Balanced Scorecard in CVBU of Tata Motors has given greater focus on defining, cascading, and communicating strategies across the organisation. The scorecard incorporates safety, quality, delivery, cost and morale (SQDCM) and also volume, market share, customer satisfaction, dealer satisfaction and receivables (VMCDR). Ravi Kant, the executive director, CVBU, Tata Motors, said, “*While we were conscious of the benefits of the Balanced Scorecard when we began*



One of the greatest problems in implementing the BSC faced by corporate India is the difficulty in assigning the appropriate weightage to the different

perspectives and then establishing the true and fair cause and effect relationship among them.

The reason is that all perspectives are inter-related and inter-dependent and, therefore, to ascertain or assign true weightage to an individual perspective is difficult. ☺☺

*implementing it three years back, we are extremely pleased that it has helped us achieve significant improvements in our overall performance. I am quite positive that the BSC will play an important objective to become a world-class organisation.”*

Implementation of BSC in Godrej-GE Appliances has mixed experiences (Singh and Kumar (2007). The positive experiences of BSC include:

1. All the supply chain initiatives tied to the balanced scorecard on supplier management have added significant improvement to the bottom line, with a gross impact of over ₹9 crore in savings.
2. Nearly three-fourths (72%) of the suppliers are below the 1,000 parts per million defects (4.5 Sigma) benchmark.
3. The process has resulted in a strong upstream supply chain and an improved vendor base backbone. The costs take out and value engineering process has contributed to over ₹5 crore. As a matter of fact, the company has ultimately reported a profit of ₹21 crore in 1998-1999 against ₹3 crore in the year 1997-1998.

However, the negative experiences of Godrej-GE Appliances relating to BSC implementation include:

1. Inaccurate assumptions on account of a change in the strategic context.
2. The second-level drivers in the organisation could not be duly educated due to the time constraint.
3. The company fell short of the targeted bottom line to the tune of about ₹21 crore.

Gumbus and Bridget (2002) studied the implementation of BSC in Philips Electronics, a large multinational company. The company followed top-down approach in building its BSC and started its use in all divisions and companies the world over. The company identified the following four critical success factors (CSFs) for developing its BSC (see Table 1).

**T**he experience of companies using the BSC in India and elsewhere in the world shows that certain conditions or prerequisites are necessary for the successful implementation of the BSC, which include: **Determining the critical success factors; Converting CSFs into measurable objectives, also called metrics; and establishing a sound communication system to disseminate the advantages of the BSC at all levels of organisation.**

The Philip's experience of implementing the balanced scorecard showed that all units faced with six common indicators: profitable revenue growth; customer delight; employee satisfaction; drive to operational excellence; organisational development, and IT supports.

Infosys Technologies Ltd., one of the world's top IT companies also implemented the BSC. The underlying philosophy behind using BSC in measuring performance was to follow a holistic approach towards implementing strategy since in an organisation every function is important and no one role is less significant than the other. The major benefits derived by Infosys Technologies Ltd. by implementing a BSC framework include the following:

- (1) Facilitates communication across the entire organisation and enhances the understanding of the vision, mission, and strategy of the organisation.
- (2) Ties the vision, mission, and strategy to the goals and objectives of individuals and departments concerned.
- (3) Facilitates a clear understanding for the reasons and helps identify initiatives to achieve the relevant performance, if an objective is not attained.

**Table 1: Philips Electronics Balanced Scorecard**

Financial	Processes	Customers	Competence
<ul style="list-style-type: none"> <li>• Economic profit-realised</li> <li>• Income from operations</li> <li>• Working capital</li> <li>• Operational cash flows</li> <li>• Inventory turns</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage reduction in process cycle time</li> <li>• Number of engineering changes</li> <li>• Capacity utilisation</li> <li>• Process capability</li> </ul>	<ul style="list-style-type: none"> <li>• Rank in customer survey</li> <li>• Repeat order rate</li> <li>• Complaints</li> <li>• Brand index</li> </ul>	<ul style="list-style-type: none"> <li>• Leadership competence</li> <li>• Percentage of patent-protected turnover</li> <li>• Training days per employee</li> <li>• Quality improvement team participation</li> </ul>

Source: Gumbus and Lyons (2002).

- (4) Acts as an effective basis for resource allocation with focus on both managing current performance as well as long-term value.

However, the implementation of BSC is beset by certain problems also.

1. One of the greatest problems in implementing the BSC faced by corporate India is the difficulty in assigning the appropriate weightage to the different perspectives and then establishing the true and fair cause and effect relationship among them. The reason is that all perspectives are inter-related and inter-dependent and, therefore, to ascertain or assign true weightage to an individual perspective is difficult.
2. The other major difficulty is assigning true weightage to different measures within each perspective and quantifying them accurately.

Anand et. al. (2005: 11-25) in their study of BSC covering 53 Indian companies (consisting of both private and public) found the following problems faced by them in implementing the BSC (see Table 2).

### What Makes the Implementation of the BSC Successful?

The experience of companies using the BSC in India and elsewhere in the world shows that certain conditions or prerequisites are necessary for the successful implementation of the BSC. These include:

1. Determining the critical success factors (CSFs)
2. Converting CSFs into measurable objectives, also called metrics.
3. Establishing a sound communication system to disseminate the advantages of the BSC at all levels of organisation
4. Developing and linking the BSC across the organisation
5. Devising and establishing a simple but sound monitoring system
6. Dedicated commitment and continuous and unflinching support from the top management

Paul R. Niven (2002) in his book "Balanced Scorecard Step by Step- Maximising Performance and Maintaining Results" has suggested stage-wise 10 key factors as prerequisites for the successful implementation of the Balanced Scorecard (see Table 3 on the next page).

**Table 2: Problems Faced during the Implementation of Balanced Scorecard**

Types of Problems ( N= 24)	Most Important/ Important (%)	Mean Score		
		Aggregate	Manufacturing Sector	Service Sector
Difficulty in assigning weightage to different perspectives	45.80	0.46	0.56	0.25
Difficulty in establishing cause and effect relationship among different perspectives	41.70	0.42	0.50	0.25
Difficulty in assigning weightage to measures within each perspective	29.20	0.29	0.31	0.25
Difficulty in quantifying measures for various perspectives	25.00	0.25	0.38	0.00**
Lack of clarity arising from large number of perspectives	25.00	0.25	0.31	1.25
Lack of clarity arising from large number of measures within each perspective	12.50	0.13	0.19	0.00*
Lack of employee and middle management support	12.50	0.13	0.06	0.25
Lack of resources — both time and finances	8.30	0.08	0.06	0.13

\* Significant at 10 % level.

\*\* Significant at 1 % level

**Table 3: Ten Key Factors of a Successful Scorecard Effort**

Key Factors	Stage
1. Gain top leadership support.	<b>Designing</b>
2. Measure the right things- things that customers, stakeholders, and employees find value in every thing.	
3. Create a governance process that engages all the key stakeholders of the organisation.	
4. Design a suitable system that follows the actual work of the organisation	
5. Start development of measures at both the top and bottom of the organisation and then cascade the same in both directions, i.e. horizontal and vertical.	<b>Development</b>
6. Create a sound communication campaign that explains how the scorecard reflects and drives a focus on the organisational mission.	
7. Align systems and tie them to the organisation’s planning, measurement, and budget cycles.	<b>Implementation</b>
8. Ensure credibility of the process and honesty in reporting the organisational matters.	
9. Create transparency of information that is as real-time as possible; this is the key to its credibility and usefulness to both senior and frontline managers.	<b>Sustaining</b>
10. Align incentives and link rewards to performance through effective evaluation and performance appraisals.	

**Concluding Remarks**

The BSC is both a performance measurement and management tool that enables the organisations to clarify their vision and strategy and translate them into action. It captures both the financial and non-financial aspects of a company's strategy and discusses cause and effect relationship that drives business success. As far as corporate India is concerned, it is high time to make aware the Indian companies to implement this technique particularly in the context of integration of the financial markets worldwide. So, there are "exciting opportunities" in India at present for promoting the concept and practice of the Balanced Scorecard to enable the companies to align their operations totally to their business strategy and translate their mission and vision into reality.

**References**

Anand, Manoj, B. S. Sahay and Subhashish Saha (2005): *Balanced Scorecard in Indian Companies*, *Vikalpa*, Volume 30, Number 2, April – June.

Anderson, Shannon and William N. Lanen (1999): *Strategic Planning at Five World-Class Companies*, *Management Accounting*, Volume 17, Number 1, July.

Batra, R. (2006): *The Balanced Scorecard: An Indian Perspective*, *ICFAI Journal of Management Research*, Volume 5, Number 8.

Dale, D. (1996): *Performance Measurement and Management*, *Management Accounting*, Volume 78, Number 3, September.

Dearden, J. (1987): *Measuring Profit Center Managers*, *Harvard Business Review*, Volume 65, Number 5, September-October.

Dinesh, D. and E. Palmer (1998): *Management by Objectives and the Balanced Scorecard: Will Rome Fall Again?*, *Management Decision*, Volume 36, Number 6.

Gumbus, Andra and Lyons Bridget (2002): *The Balanced Scorecard at Philips Electronics*, *Strategic Finance*, November 1.

Gupta, A; S. P. Sarkar.; and P. Samanta (2004): *Balanced Scorecard: An Emerging International Performance Measure*, *Journal of Accounting and Finance*, Volume 18, Number 1.

Hepworth, Paul (1998): *Weighing It Up: A Literature Review of the Balanced Scorecard*, *Journal of Management Development*, Volume 17, Number 8.

Joshi, P. L. (2001): *The International Diffusion of New Management Accounting Practices: The Case of India*, *Journal of International Accounting, Auditing, and Taxation*, Volume 10, Number 1.

Kaplan, Robert S. and David P. Norton (1996): *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Publishing, Boston.

Kaplan, Robert S. and David P. Norton (2000): *Having Trouble with Your Strategy? Then Map It*, *Harvard Business Review*, Volume 78, Number 5, September-October.

Norreklit, Hanne (2000): *The Balance on the Balanced Scorecard: A Critical Analysis of Some of its Assumptions*, *Management Accounting Research*, Volume 11, Number 1.

Pandey, I. M. (2005): *Balanced Scorecard: Myth and Reality*, *Vikalpa*, Volume 30, No. 1, January-March.

Niven, P. R. (2002): *Balanced Scorecard Step by Step- Maximizing Performance and Maintaining Results*, John Wiley & Sons, Inc., New York.

Smith, M. (1998): *Measuring Organizational Performance*, *Management Accounting*, Volume 78, Number 1.

Singh, Manjit and Sanjeev Kumar (2007): *Balanced Scorecard Implementations: Global and Indian Experiences*, *Indian Management Studies Journal*.

Venkatraman, N. and R. Ramanujam (1986): *Measurement of Business Performance in Strategic Research*, *Academy of Management Review*, Volume 11, Number 4. ■