COMPREHENSIVE MEASUREMENT SYSTEMS IN THE CHANGING ERA

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For ages organizations efficiency was measured by only financial measurement. Financial performance of an organization is a significant indicator of its performance but it is not the only indicator by any means. More comprehensive measurement systems, which incorporate intangible indicators of performance, have been developed over the past few decades. Such measurement systems can evolve as efficient carriers of organizational strategy and help in realization of the long-term objectives. In this context, it is essential to survey as to which intangible aspects of organizational performance find their way into such systems and their linkages with the tangible indicators of performance. While considering any organization, the same approach to performance measurement, performance evaluation and strategic planning is required since a bank is an amalgamation of tangible and intangible aspects. Thus, while it is necessary to evaluate performance through financial indicators, the overall growth and development of organization also encompasses customer satisfaction and customer management, innovations in internal business processes and learning on part of the employees. Various performance indicators important for performance measurement of an organization in general and banks in particular are discussed here.

THINKING BEYOND FINANCIAL ASPECTS

From the inception of business measurement only one yardstick is used for short and long run measurement of any organization financial figures from return on investment to shareholders' value have always been dominating measures of organizational performance. The problem is that these imply short-term thinking as these figures reflect only the past actions, and discount any future expectations regarding the trends or vision for improvement.

DISADVANTAGES OF SUCH TRADITIONAL MANAGEMENT CONTROL TECHNIUES ARE

1. Traditional techniques encourage short-term thinking and the delay of capital investment.
2. They lack strategic focus and fail to provide data on quality responsiveness and flexibility.

3. They encourage managers to minimize the variations from the preset standards rather than seek continual improvement.
4. They fail to provide information on what customers want and how competitors are performing.
5. There are several instances of how misleading purely financial focusing can be for a management. A classic example is the description of Xerox struggle to survive after relying entirely on financial statistics.
6. Even though Xerox books looked perfect, customers continued to demand improved quality of service for photocopiers supplied by the company. Following a typical monopolist mentality, Xerox concentrated only upon the profit margins instead of responding to customer needs with improved quality. The company established a service force to maintain unreliable machines. However, as the market turned oligopolistic with the entry of Japanese and American competitors, who flooded the market with more dependable, better quality and efficient plain paper copiers, Xerox, one of the most successful American companies from 1955 to1975, almost failed.
7. One of the primary criticisms of the traditional measurement systems is that they are generally limited to financial indicators, thereby focusing the organization on past performance and encouraging a short-term view of strategic objectives. (Eccles, 1991; American Institute of Certified Public Accountants, 1994; Deloitte & Touche, 1994) In fact, very often, the meaning of performance measurement itself is not very clearly understood. It is necessary to remember that performance measurement is the process through which an organization can establish various parameters within which different targets are achieved.

This raised a question: what was so significant about the intangible or non-financial measures that financial achievements were rendered inadequate in performance evaluation? A broader perspective of measuring the extent of success of an organization was needed initially in the 1970s and 1980s. This is when the **customer** gained more awareness and **customer satisfaction** emerged as a key indicator of the successful existence of an organization. Thus, purely financial indicators of management accounting and the traditional methods of financial control were no longer relevant for performance measurement.[1] According to Gregoris, financial data are lagging indicators.[2] By the time an issue has affected the financial results, it's already a problem. Most organizations measure success by the bottom-line: *Revenue – Expenses = Net Profit*. But that's only part of the

[1] Kaplan, Robert S. & David P. Norton (1996) *Balanced Scorecard: Translating Strategy into* Action, Harvard Business School Press, August.
[2] Gregoris, Kim 'How does your company keep score? How do you measure success?', *CPA Performance view*, http://www.bpcpa.com/measure-success01.pdf.

"Profit Equation". Revenues, expenses and net profit are essentially measurements of the financial output – the end result of the production function that is performed throughout the organization. In reality, performance and bottom-line profitability of an organization depend on how well and consistently the entire organization and people, involved in it, perform specific activities. This leads to the other half of the formula that drives the "Profit Equation": *People* × *Process* = *Profit*. In order to improve profitability, the focus should be on measuring these activities – the people and the processes, which determine the output. These are the leading indicators of the performance of an organization. A number of studies conclude that non-financial measures are leading indicators of financial performance, even after controlling for current accounting performance. (Banker, et al., 2000; Behin and Riley, 1999; Foster and Gupta, 1997) Identifying some key performance indicators (KPIs) in each area of the organization helps in monitoring and influencing these leading indicators. Thus, a good measurement system should be balanced to measure both financial and non-financial factors, from all performance areas of the company and should include both short-term and long-term measurements. Many times, easy access and easy measurability of financial indicators result in overemphasis of the same, while the non-financial measures are ignored. However, simple tracking and feedback systems can help in measuring customer satisfaction, employee morale and new product development. Incorporating such 'soft numbers' along with the 'hard numbers' in the form of financial data can yield a well-balanced measurement system. An effective solution to this lies in construction of the "Balanced Scorecard", which measures all the key performance areas of the company – sales & marketing, human resources, employee satisfaction, customer service, operational performance, supplier performance and financial operations.

COMBINATION OF FINANCIAL & NON-FINANCIAL PERFORMACE MEASURES

Firms that employ a combination of financial and non-financial performance measures have significantly higher mean levels of returns on assets and higher level of market returns.[3] This is due to variations in the contextual factors, environmental factors and strategic plans across the firm. Subsequently, adopting appropriate non-financial measures helps to determine performance consequences of such measures. Following this philosophy, increasing number of firms has been implementing modern performance systems that track non-financial metrics such as customer and employee satisfaction, quality market share, productivity and innovations. It should be

[3] Said, Amal A., Hassan R. Hassabelnaby, Benson Wire (2003) 'An Empirical Investigation of the Performance Consequences of Non Financial Measure', *Journal of Management Accounting Research*, Vol. 15, pp. 193-224.

noted that the correlation between the use of non-financial measures and the performance is contingent on the operational and competitive characteristics of the organization. The potential benefits of non-financial measure in management accounting have been widely cited. (Lambert 2001; Schiff and Hoffman 1996; Iccleas 1991; Kaplan and Atkinson 1989; Johnson and Kaplan 1987) Organizations seek to enhance their competitiveness by employing innovative quality oriented management strategies and utilizing performance measurement system that includes a broad range of financial and forward looking non-financial measures. (Strives, et al 1998) According to the agency theory, non-financial measurement should be included in the management compensation contract subject to their cost and risk. (Banker and Datar 1989; Feltham and Xie 1994; Holmstrom 1989) When this is done, managers can align their efforts more closely along the dimensions emphasized by those measures resulting in improvement in performance. Studies reveal that the weight placed on non-financial measures is positively associated with innovation-oriented strategy, the adoption of strategic quality initiatives and it is negatively related to a number of variables that proxy for poor financial measures.[4] The integration of non-financial measures in measurement systems also allows managers to better understand the relation among various strategic objectives, to communicate the association between employee's action and strategic goals, to allocate resources and to set priorities based on those objectives. (Kaplan and Norton 1996) According to Ittner and Larcker (2001), focusing on the definition and implementation of strategies and information systems that emphasize value creation and the underlying drivers of value, can align management process and internal goals with external goals.[5] Another significant contribution of non-financial measures is that they can provide more direct and timely feedback on managerial efforts in some environments, which financial measures cannot do. (Barua, et al.1995) Not only that, but, non-financial measures are simultaneously available for the purpose of evaluating the impact of current efforts on various organizational objectives. If the desired effects are not visibly seen, the manager gets an opportunity to take immediate corrective actions and improve the performance. (Rees and Sutcliffe, 1994) Perera, et al. (1997) find that the use of non-financial measures is associated with enhanced performance for firms pursuing customer satisfaction through their manufacturing strategy. Ittner and Larcker have examined the relation between customer satisfaction and performance of the firm using customer level business unit and firm level data. Their study suggests that many firms do not experience a significant association

[4] Ittner, C.D., D. Larcker, & M. Rajan (1997) 'The Choice of Performance Measures in Annual Bonus Contracts', *The Accounting Review*, Vol. 72(2), pp. 231-255.
[5] Ittner, C.D. & D.F. Larcker (2001) 'Assessing Empirical Research in Management Accounting: A Value-based Management Perspective', *Journal of Accounting and Economics*, Vol. 32, pp. 349-410.

between customer satisfaction and contemporary accounting data or market returns. Literature on the issue of quality management advocates the benefits of using non-financial measures to track the efforts for quality improvement in a firm. Based on these arguments firms can be expected to concentrate on a 'quality strategy' to include non-financial quality metrics to align managerial efforts with the strategic quality-related objectives of the firm. (Daniel and Reitsperger, 1991; Ittner and Larcker, 1995; Ittner, et al., 1997) Finally, non-financial measures are less subject to manipulation since they are typically less dependent on managerial judgment as compared to cost allocations or balance sheet valuations.[6] It is likely that distressed firms rely more on short-term financial measures. (Ittner et al., 1997) Management's desire to avoid bankruptcy and its costly consequences motivate their reliance on short-term financial measures suggest they rely less on non-financial measures compared to a healthy firm. It has been reported that the organizations that use a suitable performance measurement system, with appropriate weight assigned to non-financial dimensions, are much more likely to achieve leadership position in their industry and are almost twice as likely to have successfully implemented a major organizational change. Management accountants, who grasp the very simple idea such as that of the Balanced Scorecard (BSC), increase the capacity of their organization to survive and prosper to a considerable extent.[7] It is necessary for management accountants to understand what Albert Einstein once remarked: "not everything that counts can be counted, and not everything that can be counted, counts".

STRATEGIC THINKING AND IDENTIFYING NON-FINANCIAL MEASURE IS TASK OF ORGANIZATION

Before moving to the changed system, it is necessary to discuss in brief as to what types of non-financial measures would be most strategic and best reflect the strategy of an organization? It is important to beware of the trap of using the "most convenient" measures, which may not necessarily be the "most relevant" to execute the strategy in an organization. Research shows that operational measures, i.e., quality and process-related measures are some of the most frequently used non-financial metrics, but non-financial performance measures should go beyond operational metrics.[8] It is believed that powerful organizational forces work against strategy. Operational improvement appears to be the most attractive as it is easy to measure as well as easy to benchmark against

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[6] Rees, W. & C. Sutcliffe (1994) 'Quantitative Nonfinancial Information and Income Measures: The Case of Long-term Contracts', *Journal of Business Finance and Accounting*, April, pp. 331-47.
[7] Clarke, Peter (2000) 'Keeping Score', *Accountancy Ireland*, Vol. 32, No. 3, June.
[8] Frigo, Mark L. (2002) 'Nonfinancial Performance Measures and Strategy Execution', *Strategic Finance*, August, http://www.allbusiness.com/finance/3591396-1.html.

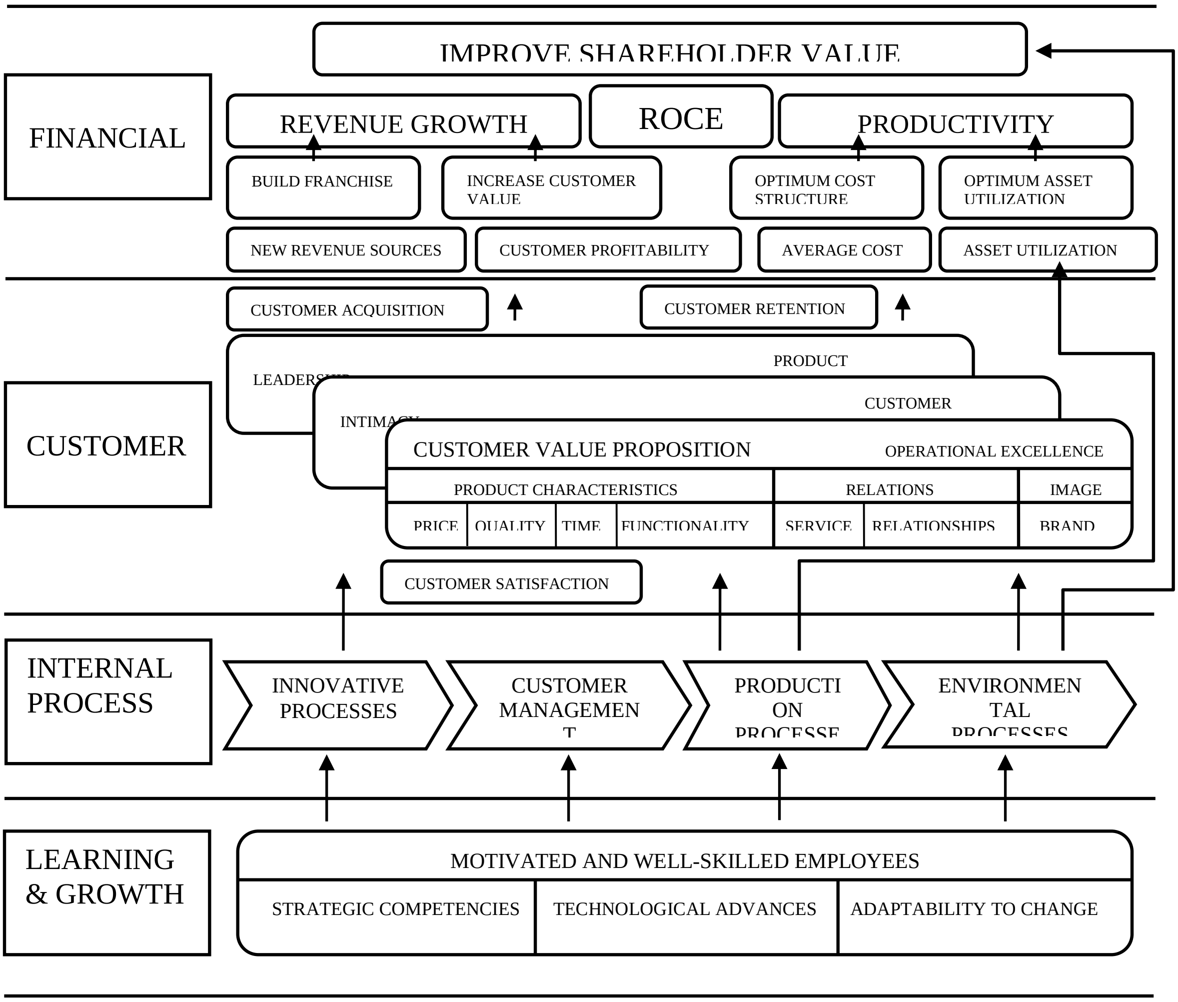
predefined criteria. In this sense, non-financial metrics should reflect the unique strategy of an organization and should avoid focusing only on what everyone else is looking at.The strategic activities, including the competency tenets of Return Driven Strategy, i.e., innovation of offerings, operating effectiveness and efficiency, and branding, as well as the supporting tenets involving employees and the value chain are some important non-financial measures to concentrate upon.[9] The financial metrics cannot be ignored in order to manage for maximum value creation. But the central premise of Return Driven Strategy is that the long-term route to value creation is inevitably through the customer. Non-financial measures indicate this route. Metrics for innovation and growth, such as employee skills and training, can drive improvement in internal process performance, such as on-time delivery and network. This, in turn, can drive improvements in customer performance, including customer satisfaction and customer retention. A robust strategy – one that synchronizes the right activities that create value – must focus on fulfilling unrealized customer needs through innovative offerings, branding, operating effectively, and incorporating the right combination of supporting activities, which include strategic partnering, employee engagement, and value chain. Many of these strategic activities can be linked together with non-financial measures. Indirectly, these non-financial measures help management link strategy with financial performance.

BSC AS A METHOD OF STRATEGIC THINKING FROM SEVERAL OTHER METHODS

The concept of BSC as developed by Kaplan and Norton (1992, 1996) addresses the perceived shortcomings of financially oriented performance measurement systems. This concept supplements traditional financial measures with non-financial measures, which focus on three other perspectives – customers, internal business processes, and learning and growth in an organization. The BSC aims at linking the four critical factors namely the organizational vision, strategies, tactical activities and metrics of performance indicators. Diagram 2.1 shows how a strategy map incorporating a balanced scorecard can be easily developed.

[9] Litman, J. & M.L. Frigo (2004) 'When Strategy and Valuation Meet: Five Lessons from Return Driven Strategy', *Strategic Finance*, August, pp. 30-9.

DIAGRAM 2.1: BALANCED SCORECARD BASED STRATEGY MAP



While evaluation and strategic tools such as management by objectives (MBO), total quality management (TQM), and activity based costing (ABC) have proved to be better than financial analysis in isolation, The BSC is a culmination of sustained efforts to find an ideal tool to measure performance and also provide a link between corporate vision and strategy.

Kaplan and Norton contend that the BSC system provides a number of mechanisms for linking long-term strategic objectives with short-term actions: Development of a BSC forces managers to develop a consensus around the firm's vision and strategy. By requiring the vision and strategy to be expressed in terms of an integrated set of objectives and measures, senior executives must agree on how broad strategic objectives can be translated into operational measures that guide lower-level managerial actions. A BSC allows managers to communicate the firm's strategy throughout the organization, helping to ensure that employees understand the long-term strategy, the relations among various strategic objectives, and the association between the employees' actions and the chosen strategic goals. By integrating strategic and financial plans, the BSC helps firms to allocate resources and set priorities based on the contribution of various initiatives to long-term strategic objectives. The BSC provides strategic feedback and promotes learning-through-monitoring of short-term strategic results by incorporating non-financial indicators of the drivers of strategic and financial success. This allows firms to modify objectives or strategies before financial results turn down. Top-level management can use information generated in the initial BSC sessions to reassess and determine the few critical business results, which formulate the top line of the BSC. It is widely accepted as the basis for a 'strategic management system', rather than a mere tool for performance measurement. If it is accepted as a control tool, then BSC is one out of many such control tools at the disposal of management. More precisely however, Kaplan and Norton assign the role of strategic control rather than management control to BSC. At the same time, considerable academic and practical attention has been focused on application of the BSC for management control purposes. According to Kennerley and Neely (2000), this may be a linkage to the prevalence of the simple first generation Balanced Scorecard models primarily used as the basis for academic contributions.[10] As the BSC entered into second generation, it strongly emerged as a tool to support strategic control. The new BSC designs focused on forming a consensus within the management team. According to Thomson (1967)**,** Kotter (1995) and Katzenbach (1997), this is consistent with thinking on leadership articulated over many years. The use of simple causal models to support the articulation of strategically important objectives was consistent with the work on organizational change.[11]

CONCLUSION

With the changing environment, various methods of performance evaluation has evolved in the last 2 decades, all are basically focusing on measuring non-financial measures, and through that it measures the performance in more appropriate way. The BSC is one of the most effective mechanisms for performance evaluation in an organization. One, it creates accountability for the goals and objectives in the organization. Two, it connects strategy to performance. Three, it provides a way of identifying whether progress is being made or not and gives the organization an opportunity to adjust as necessary. Four, it helps the stakeholders in the organization understand cause-and-effect relationships between their actions and the outcomes. The overall concept of four

[10] Kennerley, M. & A.D. Neely (2000) 'Performance Measurement Frameworks – A Review', *Proceedings*, 2nd International Conference on Performance Measurement, Cambridge, UK.
[11] Senge, P. et al (1999) *The Dance of Change; The Challenges of Sustaining Momentum in Learning Organizations*, Nicholas Brealey, UK.

perspectives is relatively easy for employees and management in an organization to understand. It helps everyone to understand the mission, vision and strategy of the organization. It clarifies the objectives, helps employees to visualize the long-term effects of actions, and to understand their contributions. It should be noted that though other frameworks may cover more areas, those areas could inevitably be a part of a well-designed BSC. Kaplan and Norton (1996) explain how an organization's Scorecard is dependent upon and interlinked with leadership and strategic planning. Additionally, it can incorporate multiple areas of other frameworks; yet remain simple enough for organizational stakeholders to understand. It addresses key areas of the organization and includes key stakeholders in a rational and logical manner. However, the BSC, especially as used in the public setting, is still a relatively new concept, hence judgment on its success or failure may be a bit premature. Its simplicity or complexity depends on the people and the organization using it. Its simplicity is derived from the idea that there are only four basic areas that need to be addressed. As an organization continues to use it, the organization may add more complex measures and more specific or redefined objectives and goals. Hence, a BSC may become more complex as it matures with the organization, but this complexity is very much dependent on the organization's use of the system.

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