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Accounting and Financial Systems and Tools for Effective Leadership and Management

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Abstract

Accounting and financial systems and tools are widely used in performance measurement by leaders and managers. Although the definitions of leadership and management defer, the same tools are applied to manage organizations. The shift from the industrial age into today's emerging information age has brought a great need for effective leadership and management. As performance is the epitome of a business enterprise, performance measurement is too important and too costly to get wrong. If the performance is not measurable, it is very difficult to manage operations of an enterprise. The last 20 years has witnessed a revolution of performance measurement ranging from financial ratios and budgetary control procedures by Dupont and General Motors, to organizational measurement systems, and next to the balance score card and Activity based budgeting, to name a few. An attempt is made to integrate practical and useful measurement (accounting, financial and non-accounting and non-financial) and management systems and tools to harness their synergized benefits in strategies.

Keywords: accounting and financial systems, performance management, activity based budgets, competitive advantage, forecasting.

I. INTRODUCTION

The shift from the industrial age into today's emerging information age has brought forth a great need for effective leadership and management to steer organizations and enterprises in facing extremely complex and challenging competitive environment. In the emerging information age we have seen a change in management and leadership styles from transactional leadership to transformational leadership as the former leadership style had be rendered ineffective. As performance is still the epitome of a business enterprise although there is a change in leadership style, many performance-related-management tools have been introduced to assist business leaders and managers in leading and managing their organizations for high performance. As accounting is the language for business, most of the management tools are consists of accounting and financial tools.

Although there is a distinct difference between the word leadership and management, these tools remain similarly useful to managers and leaders. As leaders deal with the change by setting direction (Anantaraman, 2000), accounting and financial

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numbers are utilized as the measurement of how far is the destination and the location of the destination. Leaders use accounting and financial numbers to decide the current standing of their enterprise and the future destination. Managers dealing with the complexity of planning, organizing, commanding, coordination and control (Anantaraman, 2000) used accounting and financial numbers to measure their firm's performance and for their decision making.

II. RESEARCH PROBLEMS

The last 20 years has witnessed a revolution of performance measurement. During the early 1900's, the first budgetary control procedures and financial ratios were developed and examined by Dupont and General Motors (Neely & Bourne, 2000). The procedures were widely adopted and hardly evolved until the early 1980's where people began to recognize that pure financial reporting was inadequate basis for managing modern businesses. In the late 1980's, people began to discuss about new metrics such as shareholder value, economic profit, customer satisfaction, employee satisfaction, and internal operations performance, intellectual capital and intangible assets to supplement existing financial and accounting measures. In the early mid 1990's, the discussions were shifted to measurement of frameworks such as the balance score card. Now the problem lies in which accounting and financial tools and their supplements are the most effective for managing and leading in the information age.

2.1. Research Objectives

The following research questions are embedded as the aims of the research:

a. Which accounting, financial and non-financial tools and management tools are effective for leadership in the emerging information age that is highly competitive, demands product/service quality and consumer satisfaction?
b. Does an integrated performance measurement system required?

III. LITERATURE REVIEW

3.1. Accounting and Finance in Management

In recent years, there has been a divergence of accounting and financial management; however the two are totally different in several ways (Allen, 1999). Firstly, in terms of information, if information regarding the past is needed, accounting will give the required answers. However, within subjective judgment regarding the uncertain future, financial management will be the eminent problem solver. Next, as David Allen has indicated, accounting is designed by and for outsiders looking into the operation; and financial management is practiced by insiders which looking out of the operation. This is because, accounting is rooted in objectivity and single point precision and financial management works for subjectivity and a tolerance. The limitation of this article is the author failed to denote the similarities of accounting and financial management which could be used together to tap the best of both worlds. Nevertheless, the study of the differences of this two `schools' is still very vital for managers and leaders that want to keep tabs of their operations and at the same time, looking into the future possibilities of their businesses.

3.2. Role of Management Accounting

The role of management accounting is becoming more important in team-based organizations (Thorne & Smith, 2000). Management accounting measures and reports financial and nonfinancial information that helps managers make decisions to fulfill the goals of an organization (Horngren et al., 2000). In their study, they have recommended that traditional top-down approach of management accounting to be overhauled to include operational employees in informational exchange with regards to accounting information so that they will become more empowered, self directed, more productive and more effective. The International Federation of Accountants' (IFAC) statement proposed that new competencies for management accountants were required to assist in the development of meaningful team-based performance measurements and to allow them to facilitate the team development process. The team development process was examined by the authors to detail the following:

a. The role of management accountant to facilitate team training and providing technical support and guidance in the development of initial performance measures in daily activities.
b. Involvement of management accountants in a review of performance measures.
c. Obligation of management accountants to interact with team-based operations and to provide leadership.
d. Endurance of management accountants on team's equipment of necessary skills to participate in budget setting, involve team members in the budget process and provide teams with information on resource availability.

The authors have concentrated on the new roles of management accountants but they did not recommend performance measures for team members' use, probably, they were advocating that performance measures must be set by team members and facilitated by the management accountants. Nevertheless, the authors have managed to stress the importance of accounting and financial related performance measures in organizations. This provides the opportunity for leaders and managers to recognize the importance of accounting control and performance measurements in developing a team-based organization.

PricewaterhouseCoopers Financial and Cost Management Team (2001) have recommended that measures should be developed from strategies. Objectives must be translated from shareholder value measures. The financial consultants have also advocated that executives cannot manage what they cannot measure and measures must be tailored to specific needs at different management levels. Measures must have the following pairs like leading and lagging, reflect internal and external concerns, cost-based and non-cost based, quantitative and qualitative. Deriving objectives and measures from shareholder value and translating them into different terms that are applicable to all management levels, helps a business leader or manager to manage the performance of their enterprise.

3.3. Performance Model and Measurement

Tvorik and McGivern have researched on a performance model of organizational performance determinants that focus on financial ratios. Below are the five structural segments of organizational performance factors and descriptions of measures supporting them?

a. Measurement of organizational alignment by return on sales (ROS).
b. Measurement of organizational capabilities and routines by firm specific return on assets (ROA).
c. Representation of industry structure and strategic group influences by the Altman Z score. A strong Z score suggests a strong competitive position in the industry.
d. Measurement of organizational resources by return on investment (ROI).
e. Measurement of leadership and vision by return on invested capital (ROIC).

These economic and organizational determinant factors are measures that describe the results of management leadership activities in deriving supernormal profits. Leaders being involved in strategic management could use these measurements or financial ratios to monitor and enhance shareholder value and to communicate organizational results to their stakeholders.

Traditional measurement systems that rely on financial indicators alone although useful tends to attract cynical and skeptical comments on why, how and when they are used (Parker, 2000). Financial data tend to be inward looking, fail to include tangible factors such as customer satisfaction, product or service quality and employee morale. Financial data is also described by author as lagging indicator that tells historical happenings and thus they are poor predictors of future performance. What is needed is a prognosis for the future or leading indicators. Parker has briefly commented on the use of the balance score card approach and activity-based costing (ABC) to predict future performance. The suitability of measurements depends on the nature of the organization and the purpose of performance measurement. What that are fundamentally important as described by Parker are, selected performance measurements must be aligned with organization's strategy, sub-unit measures must aggregate into organization-wide measures, there must be commitment to the measurement regime, the measurement must have an effect on performance and it must be reliable.

3.4. Inter Firm Comparison

There is important role of management accounting in inter-firm relationships. so it's important to study management accounting practices like activity based costing, balanced scorecard and the financial and accounting benchmarking as well as the effect of the investment in information and communication technologies (ICT) (Affes & Ayadi, 2014). The role of activity-based management is increasingly important for those managing change (Clarke & Bellis-Jones, 1996). The success of change depends upon the understanding of fundamental drivers of cost in a business as oppose to simply a desire to improve the way thing are done. As advocated by the authors, in predicting the direction that will lead to improved profitability, the following must be realized:

a. Which of our products, services and customer erode rather that build profitability and why?
b. Which activities have the greatest leverage over improving product or customer profitability and why?
c. What drives cost within the organization?
d. What inefficiencies exist within the organization?

Conventional budgeting and planning systems undermine change because they are barriers to the above said. The authors have recommended activity based cost management based on ABC as a requirement for the future especially to organizations which practices TQM. ABC provides an opportunity for leaders to review organizational and business processes. A change in management structure from the multi-divisional (M-form) organizational structure to empowering (N-form) organizational structure, concerns regarding a number of limitation and weaknesses linking to traditional budgeting processes are beginning to increase (Brown & Atkinson, 2001). It has been proposed that organizations in the information age adopt "better budgeting" processes such as activity-based budgeting (ABB) and zero-based budgeting (ZBB) to support the more flexible, responsive, empowered N-form organizational model. However, it was not discussed in greater detail how these budgeting processes could be used to support N-form organizational model, rolling budgets are also prepared wherein focus is more on future rather than on past (Golyagina & Valuckas, 2012). Rolling budget is a quarterly process that help an organization to monitor financial trajectory (Miller et al., 2013), it's structured and systematic way beyond the annual budgets rolling forecast provides the necessary navigational insight (Zeller & Metzger, 2013) leaders are dropping the budget and instead moving to continuous rolling forecast (Hagel, 2014).

3.5. Capital Budgeting

Stanley Block (2000) has examined the integration of capital budgeting into an international decision-making environment by surveying 146 multinational companies. The 146 MNC's were analyzed using current financial theory. The researcher has found that the primary goals of the firm with regards of the effects of capital budgeting and financial decisions are to maximize stockholder wealth (54% of the respondents), and to maximize earnings per share (33% of the respondents). This information gathered from the survey examines the decision that is made by business leaders is primarily based on shareholder needs only, other stakeholders needs are not considered. A successful business leader must integrate the needs of all stakeholders in decision-making.

By using capital budgeting models in both local and global perspectives with simulation, a decision maker is able to analyze the effects of capital expenditures and the interactions of resources in a dynamic environment (Taylor, 1998). Vital decisions are often needed in business decisions such as replacing existing equipment with newer, faster, state-of-the-art models. Capital budget models involved in the simulation are as follows:

a. Pay back (PB).
b. Net present value (NPV).
c. Internal rate of return (IRR).
d. Modified internal rate of return (IRR*).
e. Profitability index.

Business leaders and managers can use these capital budget models in their decision making especially in high technology and investment areas which require large investments. The models will serve as a guidance system for business leaders and managers making economical decisions.

3.6. Competitive Advantage

Competitive advantage is gained by organizations through business strategies that adopt innovative ideas and products and depends on an innate factor that is the managers' value orientation towards innovation (VOI) and its relation with management control features and managers' organizational commitment (Subramaniam & Mia, 2001). Survey by the two authors have found that managers having high VOI are likely to be more committed to their organization under increased decentralized structure or if their budgetary participation is high. Their study supports that the design of a control system in an organization needs to consider the managers VOI, the organization structure and its core control system including budgetary system. This study also shows that budgetary systems can be used to increase organizational commitment. Opportunity lies on the business leaders to use budgetary systems to enhance organizational commitment among their co-workers.

As quality improvement has become a prime concern in manufacturing owing to stiff competition in an expanding global market, its effects on a company's short-term profitability is difficult to be measured and assessed (Margavio, Fink & Margavio, 1994). The Taguchi loss function, a method to measure financial benefits related to quality improvements incorporated into a capital budgeting model should be used to decide whether to invest or not to invest in a particular quality improvement project. A deviation of a product from its target values represents a loss to society from a product that does not perform as expected. When a quality improvement project is to be selected, reductions in quality losses that translate to savings are calculated by accumulating the savings over a predetermined number of years. The present values of the savings are calculated. The total savings (discounted) of the project is compared with its alternative's. The quality improvement project that generates the highest savings with the lowest cost of capital to be invested for implementation will be selected. The opportunities lie on business leaders and managers to decide in the investment of quality improvement projects by utilizing the said method.

3.7. Financial Forecasting

Financial forecasting provides an opportunity for an organization to articulate the vision of all levels of management, the real-world input form bankers, accountants and financial advisors (Pendock, 2000). There are two types of financial forecast: strategic planning and operational planning. Strategic planning deals with future direction of an organization, definition of corporate culture, and empowerment to encourage entrepreneurial spirit, innovative thinking, and the creation of synergy. Operational planning, however deals with budgets which attacks the nuts and bolts on how to achieve business objectives. Working capital is allocated to plan for all functions in an organization. The financial plan links the two together. This article examines the importance of financial planning that must be used by and organization to achieve business goal and objectives. Business leaders and managers must lead in financial planning and encourage involvement from all levels of management. Monthly and annual financial statements provide business owners with information about the progress of their businesses (Alderling, 1999). By using financial ratios, lenders and investors measure financial condition and the success of a business relative to other businesses. Some common used financial ratios are, current ratio, days sales in accounts receivable, inventory turnover, debt-to-equity ratio, gross margin percentage, overhead as a percentage of sales, net income as a percentage of sales, ratio of sales to fixed assets or total assets and cash flow ratios. These ratios used consistently will provide business leaders and managers valuable information at little cost.

Academic studies have found evidence that financial ratios differ across different size firms (Osteryoung & Constand, 1992). Survey by the authors has found that there are significant differences between many of the industry average ratios for small private and large public firms across a large number of industry groups. Thus when comparison are being done, it is suggested that financial analyst, lenders and mangers should identify appropriate industry average ratio. Devin and Seaton (1995) have examined forty four financial ratios derived from quarterly and annual financial information. The findings of this study indicate that fluctuations exist in the stability of factors underlying quarterly financial ratio and there are some significant differences between annual and quarterly financial statement information. This has potential impact on decision making. Thus users of quarterly financial information must be selective in their choice of key ratios when making decisions. Thus business leaders and managers must be careful in using ratios from quarterly financial information. Poston and Harmon (1994) have studied the extend of the applicability of financial ratios in discriminating troubled companies and the ability of the financial ratios to cure their financial ills, thereby avoiding bankruptcy. Seven ratios are measured for each company involved in the study to find that financial ratios are not so useful efforts to distinguish between failing firms that effect turnaround and those that are unsuccessful in their efforts.

There are three financial tools that can disclose the true condition of a company (Elkin, 1997). The three basic accounting documents that form financial projections are the income statement, the cash flow statement and the balance sheet. The author has examined the usefulness of the three accounting documents to advocate that all business owners and leaders need to be familiar with the three basic accounting documents. This is because real numbers do not deceive. Fundamental ratios derive one summary ratio- return on equity (ROE). Properly interpreted, it can provide keen insight into the source and adequacy of profits, the efficiency of the assets committed, solvency risk, and liquidity risk (Eisemann, 1997).

3.8. Maximization of Value

Maximization of long-term value depends upon continuous evaluation of cash generation capacity (Havel & Levine, 1996). Financiers analyze two additional financial results; they are Earnings before interest, taxes, depreciation and amortization (EBITDA) and Earnings before interest and taxes (EBIT). The first measures the company's skill in generating cash and latter gauges cash flow from operation after depreciation. Monitoring cash flows is crucial to an organization's success. As business leaders become more familiar with the concept and the use of cash flow rations, their decision making process will improve greatly. Due to the lack of consistent definitions and underlying accounting policies, financial ratios used for decision making are often suspected of their validity (Gardiner, 1997). SmithKline Beecham in 1996 revealed a return on equity of 76% and 17%. The first is calculated using the USA GAPP and the second using UK GAPP. Gardiner's article reveals the fact that business leaders and managers must use their discretion when using financial ratios and when a financial ratio is used, they must find out which GAPP is used. Business leaders and managers must also ensure that a consistent set of policies and GAPP are used when financial ratios to ensure that the decision making process is consistent.

3.9. Non-Traditional Models

Financial performance measurement is not a total solution (Barker, 1995). The author of the article is a Manufacturing Director of Dorman Smith Switchgear and he advocates the following:

a. Cost that are measured in an abstract manner such as cost drivers, queue time, machine set-up, stock throughput time are not identified and thus companies can therefore very easily become complacent until competition arrives. He proposes a measurement of input/output value adding capability by using time-based framework. Negative costs and non-value adding activity are identified across the total value-adding chain per product family.
b. Investments are made isolated of the company without an understanding of the total value adding chain or supply chain. He proposes that the whole value adding chain is identified and become visible for each product family. Investment is made in total cost reduction.

Barker's article reveals that other non-traditional financial and cost accounting performance measurements are used for decision making. Thus, business leaders and managers must be acutely utilize performance measurements that describe their operations more accurately as vital operational performance are invisible under the shroud of existing cost accounting performance measurements.

3.10. Changing Role of Finance

Hastings (1996) have proposed a new model called the strategy evaluation model to address the criticism aimed at capital budgeting models which employ purely discounted cash flow techniques and financial ratio analysis. It was criticized by certain academics and practitioners that, financial models ignore key strategy-making process such as organizational structure and behavior in decision making, management behavior towards risk, and strategic considerations in decisions. The strategy evaluation model has been derived from the analytical hierarchy process framework using mission objectives and planning framework and the operations research techniques that also includes NPV and Payback. The attempt to link capital budgeting process to strategic management is an opportunity to business leaders to be make better and guided decisions in capital expenditure.

Jankowski and Gryna (2000) have examined the changing responsibilities of a finance department in an era of TQM. They have raised the following issues in their article:

a. Should the finance department continue in controlling and policing role, or shift to focus on service role for its internal and external customers and other indirect stakeholders?
b. What opportunities exist for using quality management concepts in specific processes within the finance function?
c. Should we evaluate capital budgeting proposals primarily on hard, quantitative data, financial measures or should we include soft criteria such as maximizing customer satisfaction?
d. Are reduction possible in working capital investment through the application of quality management concept?
e. How can competitive benchmarking help to improve the effectiveness of the finance function?
f. What type of skills will be needed in the corporate finance department in the future?

The authors advocated that the first department to change in their operation style is the finance department. Although the questions asked by the issues raised by them challenges the status quo in finance, they are in opinion that the integration of TQM concepts with traditional management structure can benefit the total enterprise. The issues raised by Jankowski and Gryna are hard facts for business leaders and managers who want to implement quality related efforts in their organization.

Chapman, Murray and Mellor (1997) have studied 75 companies in Australia to link financial performance indicators to strategic quality planning. Financial indicators used are earning on shareholder funds (EOSF), return on total assets (ROTA), and labor productivity ratio (LPR). Five indicators of successful strategic quality planning were selected. They are: strategic integration, deployment/involvement, customer-focused planning, measurement and benchmarking, innovation and continuous improvement (CI).

Their research has uncovered the following:

a. LPR appears to be more sensitive to TQM initiatives that ROTA and EOSF.
b. Strategic integration and measurement and benchmarking show the strongest positive correlation to LPR.

c. Deployment/involvement while rate highest by respondents in importance and performance, its correlates the weakest with LPR.

This shows that TQM initiatives have more effect on and measured by labor productivity and strategic planning and benchmarking are the actions must be taken by business leaders in order to implement TQM. This article is also useful to business leaders and managers who wants to or are now implementing TQM in their enterprise. By knowing the actions that must be taken and their measurement, TQM can be more easily implemented.

Feurer and Chaharbaghi (1994) have defined competitiveness in a way which enables the measurement of an organization's competitive position through a mapping process. Four measurements in forms of customer values, shareholder values, financial strength and technology and people are fitted into a three dimensional axis. Key measures such as ROE, EPS, pay-out ratio and dividend yield are used to measure financial strength. By the mapping process, competitiveness is measures by reflecting the trade-off between satisfying the customer and shareholder values and maintaining financial strength. It is possible to identify competitive gaps by following this method. Although very academic in nature, this method could be used by business leaders and managers that want to be conceptual and analytical about the existence of their enterprise.

Kaplan and Norton (2000) have stated that the key to executing strategy is to have people in the organization to understand them. By using strategy maps, the strategy can be charted. The authors have recommended a balance score card approach in mapping strategy. A strategy is formulated firstly from the financial perspective, followed by the customer perspective, then by the internal process perspective and finally followed by learning and growth perspective. Strategy maps can help a company detect gaps in the strategies being implemented at lower levels in the organization. By starting a strategy map from the financial perspective, the destination is known before charting the routes that will lead there. Knowing the destination before reaching it and charting the course is important for business leaders and managers. Vast opportunities can be found in terms of preparation for loss and understanding risk involved when a strategy is taken if this approach is practiced.

3.11. Leverage

Leverage as a concept has a significant impact in different walk of life, but not that due attention is paid to the different kinds of leverage. Anderson (2014), examines three main kinds of leverage, namely bargaining leverage, resource leverage, and investment leverage. These leverages have a very powerful influence in business, economics and equally important in politics and international relations, the global financial crisis of 2008 was an act of "over leverage" bargaining leverage is studied and discussed by scholars and theorists of negotiation, lawyers, and political scientists. Resource leverage is prominently been and study of management, economist and engineers. Investment leverage plays an integral role by bankers, economists. PricewaterhouseCoopers Financial and Cost Management Team (2001) have advocated a new look at risk- an integrated approach to risk. As risk is matter or perspective, the financial consultants have divided risks into five main groups: strategic (risks of plans failing), financial (risks of financial controls failing), operational (risks of human error or omission), commercial (risks of business interruption), and technical (risks of physical assets failing or being damaged) risks. They have also recommended that risks should be look at both sides: risk as an asset or opportunity or risk as a liability and the objective of managing business risk is to maximize shareholder value. If risk is an asset, risk must be managed to seize opportunities, create value, push to the limits, beat the competition, and attract investor. However if risk is a liability, risk must be managed to reduce the possibility of loss, protect value, stay in control, avoid falling behind and reassure investors. Strategies that are further defined by risks will reinforce implementation of improvements because risks have been analyzed. Business leaders and managers that manage their enterprise via an integrated risk approach are able to seize new opportunities, stay in control and develop a culture that empowers everyone to manage business risk.

Global financial crisis's of 2007 brought into light various role of leadership in bringing about the crisis, Banking leaders believed and had blind faith in modern finance and over confidence in financial models (Weitzner & Darroch, 2009; Grosse, 2012). This was fueled because of performance based compensation (Bebchuk et al., 2010; Bhagat & Bolton, 2014). Over optimization lead to shallow approach towards risk and crises (Coleman & Pinder, 2010; Boddy, 2011). On positive side leadership during the GFC can be seen to focus on the ways in which leaders directly or indirectly brought their followers out of crisis (Chambers et al., 2010; Boddy, 2011).

3.12. Sustainability

The growing importance of sustainability issues in business calls for an integration of environmental issues and into corporate decision making. Carbon accounting is increasingly becoming important for sustainable management. Greenhouse emission and increasing climate change require innovative approach for preventing and minimizing the negative impact of climate change. Different type of carbon accounts is evolving, but still they are not interlinked in policy or strategic decisions (Schaltegger & Csutora, 2012). The sustainability plays a vital role in humanity; hence techniques of sustainability accounting and accountability are very powerful tools in the management, planning, control and also for social and environmental sustainability. Further this agenda will have impact on how accounting records are created and how they can be used (Bebbington, et al., 2014). For integrated measurement of corporate environment and financial performance Eco-efficiency is becoming a very popular concept (Lamberton, 2005; Huppes & Ishikawa, 2009).

IV. METHODOLOGY

In order to compile some information supporting the research problem and objectives, a review of literature was conducted. Information from the review of literature forms the research project as the research is formed by secondary data. The review of literature is consist of a keyword search on on-line library databases such as Emerald and Ebscohost for journal and articles available. Keywords employed are as follows but not limited to:

1. Accounting.
2. Accounting tools.
3. Finance.
4. Financial tools.
5. Financial ratios.
6. Performance measurements.
7. Leadership.
8. TQM.
9. Activity-based costing.
10. Benchmarking.

11. Strategic management.
12. Strategy.
13. Budgeting.
14. A combination of key words.

Some information were that are covered in this research were also obtained from various chapters of professional reference books published by financial consultants such as PricewaterhouseCoopers. Twenty-seven (27) suitable articles from the databases and books were selected for the review.

V. DISCUSSION, ANALYSIS, FINDINGS AND RESEARCH LIMITATIONS

With the present trends in the evolution of accounting and financial tools, an integration of the practical accounting and financial tools is needed. These tools must not be used independent from management tools that defines strategies, objectives, and organizational vision and goals. An integrated management tool which consist of accounting, financial, non-accounting and non-financial measurements could give a bird eye view on an organizations strategy. Strategies without measurements and techniques lack essence and meaningfulness. We can't manage want we can't measure.

It is no longer sufficient that a management team to say we want maximized revenue, happy consumers and satisfied human resource, instead the management team has to explain what they meant, because all stakeholders must understand their objective fully. All stakeholders must be made understand of the goals of the organization at their own respective point of view. This is the main reason of why, strategies must come with a specific technique which includes stakeholder perspectives and performance measurements or key performance indicators-KPI's (either financial or non-financial) that describe the perspectives more clearly. A well-defined strategy will definitely aid communication.

Performance measurement is too important and too costly to get wrong. Measurements inappropriately linked to strategies will retard the implementation of a strategy or at the worst case fail the strategy. This is because wrong measurements will produce inaccurate analyses and at the next run, poor decisions will be made 5.1.

5.1. Integrated Plan

It is suggested that the integration consist of the following:

a. Balance score card approach as the main structure in defining strategies by financial, customer, internal process and learning and growth perspectives as recommended by Kaplan and Norton (2000),
b. Managing and leading by integrated risk management. Risks and opportunities involved for poor or improved finance, customer relations, internal process, learning and growth to be defined integrating ideas by PricewaterhouseCoopers (2001). Risks are seen as an asset and also as a liability,
c. Financial ratios by DuPont, and
d. General Motors, performance measurements derived from activity-based costing, shareholder value metrics and non-financial measures, integrating ideas from Barker (1995), Clarke and Bellis-Jones (1996), Chapman, Murray and Mellor (1997), PWC (2001).

A plan of this integration is described using an example of a motor vehicle dealer, assuming that the motor vehicle dealer has a strategy to enhance company worth, profitability and revenue. An illustration of the integrated approach to performance measurement using accounting, non-accounting, financial and non-financial tools are as shown in Table 1.

Table 1
The Integrated Approach of Using Accounting, Non-Accounting, Financial and Non-Financial Tools and Measurements with the Balance Score Card and Integrated Risk Management

Integrated Plan				
Strategy 1				
To Enhance Organizational Worth, Profitability and Revenue				
Perspectives	**Performance Measures**	**Risks**	**Action Plans**	**Owner**
Increased shareholder value	Shareholder value	Shareholders divesting	Manage funds and finances	Finance manager
	Measures		Effectively by effective budgeting	
Increased profitability	Return on equity	Reduced profits	Review price and cost of sales	Marketing manager
	Profit margin			
Increased revenue	Total sales	Reduced earnings	Aggressive sales force	Sales manager
	Productivity		And marketing activities	
Customer		**Risk for Poor Customer Relations**		
Delighted and loyal customer	Customer service index	Depleted customer loyalty	Enhance service quality and	Customer service manager
	Lost sales		Introduce customer loyalty	
Internal Process		**Risk for Poor Internal Process**		
On-time delivery of vehicles	Delivery time	Lost sales	Review stocking levels and	Distribution manager
	Lost sales in units		Manage stocks reorder levels	
Efficient utilization of company resources	Average expenses incurred per unit sale	Depleted net profit	Manage expenses, ensure that expenses incurred commensurate with increased sale	All managers
	Process efficiency			

To continue from Table 1

Learning and Growth		**Risk for Low Employee Learning and Growth**		
Employee retention	Employee turnover	High cost or recruitment	Review incentive schemes	Sales manager
		Lost of skills and knowledge capital		
Improvement of process	Internal audit findings	High wastage, reduced customer	Document processes and	Quality systems manager
		Satisfaction	Procedures and audit Implementation	
Satisfied employees	Employee satisfaction	Demotivated employees translating	Implement employee welfare	Human resource manager
	Index	To lower productivity	Programs	
Functional excellence	Average expenses per unit sales Total sales Productivity	Low performing functions leading to redundancy	Appraise employees at a higher frequency	All managers
Highly trained employees	Number of trainings per employee	Unskilled employees leading to low quality service and customer satisfaction	Indentify training needs and formulate training programs	Human resource manager
	Training needs identification(TNI) findings		Ensure that all employees have attended at least 5 days training	

The plan includes the following accounting and financial tools as its action plans and performance measures:

a. Shareholder value (corporate value-debt) measurement where corporate debt is the future free cash flow that investor expects the company to generate over a defined timeframe, discounted by the cost of capital for the business (PricewaterhouseCoopers, 2001).
b. Budgets are formed as part of the management plan. They consist of operational budgets and capital budgets. Activity based budgets are also formed using activity based costing methods where fundamental cost drivers are identified and costs are allocated based on a selling activity. Selling expenses per unit sales as shown in the table is derived by activity based budgeting. Capital investment budgets are formed and decided upon by examining various net present values of investment alternatives where in the case of the motor vehicle dealer, capital investment decision will include assembling vehicles domestically instead of importing or establishing a new sales showroom.
c. Dupont analysis measurements such as return on equity (ROE) is used to measure the profitability of the company. ROE reflects the efficiency of the company and how much the company can generate per sales dollar (Eisemann, 1997).

Non accounting and non financial measures are also as important as well. Measurements such as customer satisfaction index (CSI) is important to identify satisfaction levels of customers. However, some may argue that high revenue means high customer satisfaction. This comment may not be totally true. A company may just set high prices leading to increased revenue. Thus, a high revenue especially at a short term may not mean increased customer satisfaction. CSI measures aids in monitoring of satisfaction levels without being clouded this factor. Another useful measure is the employee satisfaction index (ESI). Many human relation is such as Lyman and Porter have shown that employee satisfaction leads to greater productivity. Thus a consistent measurement of satisfaction level of employees can assist in formulating welfare programmes for employees. There is no method known to measure employee satisfaction in the dollar value, thus a non-accounting method is adopted. The ESI is derived from surveys from employees. The responses are graded on a scale and an index is derived. The index is the satisfaction level of employees.

Employee turnover measurement is another important metric that is difficult to be measured by dollar value. To measure cost of employee turnover is a difficult task as it may be linked to a multitude of costs such as costs of lost sales, increased in expenses because poor monitoring due to reduction supervision workers, and may others. Employee turnover is vital to measured by companies to gauge retention of employees that make up the organization.

Risks in the not meeting the goals outlined in the four perspectives are analyzed and linked with the goals. Action plans are later formulated to address the risks and to ensure that the goals are met. The integrated plan must not be formulated in isolation. It must be formulated with in a team by involving and empowering all management levels, employees and stakeholders. All stakeholder members must be encouraged to provide feedback on the integrated plan. The finished plan must be later communicated to the stakeholders. The integrated plan must be used to empower employees to act and to increase employee performance.

Although the integrated tool examined above could assist and benefit leaders and managers in running their businesses and guiding their financial strategy, it has its limitation. The integrated tool suggested may lack of practical usage as a whole although the balance score card and financial ratios are widely used by their own respectively. The integrated risk management method recommended by PricewaterhouseCoopers is a new method, lacking practical usage and case studies. Future studies on the same topic should assess the effectiveness of the integrated tool in a practical situation or case. The balance score card approach used with financial and non-financial metrics is effective as indicated by other authors but whether it is effective or not when it is integrated with risk management, this will remain a hypothesis to be proven and concluded.

VI. CONCLUSION

In conclusion, there is a need to recognize the nature of management and performance measurement techniques either financially or non-financially related. Unless an understanding of available performance measures is attained, the ultimate impact will be limited. Leaders and managers must understand the practicality and the benefits of any performance measurement that is to be implemented. Without a good understanding, leaders and managers may make fundamental mistakes in implementation. Flawed measurements due to understanding will lead to poor quality decision and may be costly also. With good understanding of available performance measurements and management techniques, coupled with a thorough understanding of the business and innovation, a leader will be able to integrate useful performance measurements with practical management systems and techniques to assist the leader in leading his organization. Performance measurement systems, techniques and tools either financial or non-financial are in abundance and will continue to evolve continuously; hence, it is all up to the leader to choose the best tool for leading his organization. After selecting the systems and tools, the leader must ensure that they are used consistently and monitored to achieve the desired results. In today's competitive information age, performance matters, performance is the benchmark and performance measurement using the most appropriate systems and tools will nurture or destroy an organization.

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