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Linking the Balanced Scorecard to Organizational Shareholders' Expectations

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Abstract: The Balanced Scorecard (BSC) has been proposed as a near-panacea for the strategic management ills that may beset an organization. However, the strategic implications of internal and external performance measurement have not been demonstrated as reliable either for a sample within one industry or across industries. This study proposes a new model that translates the BSC from a three-part internal and one-part external performance measurement system into a comprehensive measurement system that includes stakeholders' a priori expectations and that merges those expectations with performance measurement systems that will enable organizations to satisfy the often exclusive expectations of all stakeholders.

Keywords: Balanced Scorecard, Stakeholder Expectations, Performance Measurement Systems, BSC Model

Introduction

Management theorists have analyzed performance measurement within the organization for more than a century. Management by Objectives (MBO) was first suggested by Drucker (1954) and popularized through the efforts of George Odiorne (1965) at the University of Massachusetts. Later amendments to MBO included benchmarking, TQM and stakeholder satisfaction. The Balanced Scorecard (BSC), introduced by Kaplan and Norton (1992), is derived from MBO. Although both benchmarking and the BSC are performance measurement models, benchmarking is the measure of internal performance against external standards and the BSC compares performance only internally within the organization. Activity Based Costing (ABC) and Total Quality Management (TQM) models take a bottom-up approach toward cost minimization and quality optimization. Similar bottom-up models are Zero-Based Budgeting (ZBB) and the related and more recent business strategy model, Business Process Reengineering (BPR) (Johnsen, 2001). The newest addition to performance management models is intellectual capital, an intangible asset, the measure of which attempts to relate strategy and performance management; however, intellectual capital has not been shown to be correlated directly with specific organizational outcomes (Bukh *et al.*, 2002; Cumby and Conrod, 2001).

The underlying theoretical perspective of the BSC is agency theory, which addresses issues of

implementation and organizational control (Johnsen, 2001; Posner, 2000). Kaplan and Norton's (1992) BSC theory was driven by the failure of traditional performance management measures to affect outcomes, by indications that the volume of intangible applications within organizations was increasing and MBO did not adequately address intangibility, by the lack of clear evidence of a link from performance to strategy and because financial measures alone do not adequately predict market value or other external, financial outcomes. While it has been proposed that intangible assets can create value for organizations, it may not be inferred that they have a distinct market value (Kaplan and Norton, 2001).

Review of the Literature

The BSC was the result of a year long study of the strategic initiatives of 12 companies. Admittedly, the BSC was about performance measurement (Kaplan and Norton, 1992; 2001). The BSC incorporates more than just past financial performance. It breaks performance into four perspectives, all of which are related to the other three perspectives:

- Customer perspective: "How do customers see us?" Measurable factors in this perspective might include time, quality, performance and service, as well as cost
- Internal business perspective: "What must we excel at?" Measures for this perspective should

identify areas that affect cycle time, quality, employee skills and productivity

- Innovation and learning perspective: “Can we continue to improve and create value?” Factors that may be incorporated might include the ability to launch new products, penetrate new markets, or create more value for the customer
- Financial perspective: “How do we look to shareholders?” Although the BSC focuses on measuring the non-financial aspects that drive future performance of a business, incorporating a financial perspective is imperative because investors examine financial statements and many employee reward systems are tied to financial performance (Kaplan and Norton, 1992)

However, this original (1992) model did not offer a hierarchy of perspectives or clearly identify the cause and effect relationships within the model. As the BSC model was later expanded and amended, it retained financial measures as lagging indicators, or outcomes and defined the Customer, Internal Business and Innovation and Learning perspectives as leading indicators, that is as drivers of future financial performance. The BSC has since evolved from a performance measurement system to become the framework for a strategic management system (Kaplan and Norton, 2001).

One of the first model modifications that Kaplan and Norton (1996a) proposed was a suggestion that the chain of cause and effect among all four perspectives of a BSC should be clearly defined. The driver and outcome measures should explain how performance affects a business's strategy. However, in that same year they also questioned how a company could know that it had the right measures on its BSC, or if it had valid and reliable data for the selected measures. Further, they pondered whether either or both of unintended or unexpected consequences might occur as a result of the way the targets for the measures are achieved (Kaplan and Norton, 1996b). Admittedly, cause and effect determination takes time to do, yet organizations devise and implement a BSC before they have evidence of the operators of cause and effect.

The question of cause and effect has been considered in several studies. Ittner *et al.* (2003) suggested that the BSC assumes that internal measures are DRIVERS and leading indicators of the OUTCOMES, the external measures and lagging indicators, of the financial and customer perspectives. The BSC inherently does not address trade offs among the performance measures. If an organization has multiple objectives, the probability of conflict among those objectives increases; such dynamic situations make weighting of the perspectives more important.

However, because Kaplan and Norton (1992) originally suggested that the measure of the BSC is a correlation among the perspectives, Youngblood and Collins (2003) measured the correlations of the weighted, aggregate utility function for the components of each perspective and did not consider the cause and effect relationships.

Frigo (2002) proposed that financial performance is the primary outcome of the BSC, driven directly by a customer value proposition. Customer value is established in turn by business processes, the value chain of the organization. At the base of the BSC hierarchy is innovation and growth, which provide the requisite capabilities and infrastructure for internal business processes and customer value propositions. He also suggested that this hierarchy can be used to link the strategic activities of the organization to the creation of financial value. In Frigo's model, cause and effect is linear and moves from one perspective directly to another.

In a recent interview, Robert Kaplan indicated that there is a gap between the vision and strategy developed at the top of the organization and the things that people actually do within the organization. The BSC is the link between vision and strategy and employees' everyday actions (De Waal, 2003). Other research supported this contention. Stivers and Joyce (2000) proposed that the BSC provides a critical process for implementing and obtaining feedback on strategy, thus focusing the organization on the long-term. This model changes the BSC from a performance measurement system to a strategic management system. Manufacturing plants that link their strategies to their performance measurement systems through the use of the BSC were able to improve their organizational performance (Sim and Koh, 2001). The BSC may also be a management control mechanism and a means for the improvement of organizational outcomes (Malina and Selto, 2001). However, this argument suggested that the very act of performance measurement reveals deficiencies, but it did not consider the cause and effect relationships among the perspectives.

The recommendations for design and implementation of a BSC are similar throughout the literature. First, the particular measures within each of the four perspectives are identified by the organization. The proposition that BSC measures are generalizable among all organizations or even within an industry is notably absent in the literature. Rather, the research posits that the measures are unique to an organization or even the sub-unit of an organization (Malina and Selto, 2001). Once the criteria within the four perspectives are determined, the data and data analysis methods by which performance will be measured must

be clarified (Sink and Smith, 1999). The measures should be: (1) derived from strategy; (2) developed for activities and business processes; (3) dynamic in order to keep pace with changes in strategies, processes and the competitive environment; and (4) developed with a team approach (Kaplan, 1992; 1996a; 1996b; 2001; Youngblood and Collins, 2003). After the components of the BSC are defined and the measures are quantified, a BSC model can be developed. Youngblood and Collins (2003) proposed that the performance measures and the four perspectives should be rank weighted by their relative importance to the decision maker; there was no proposition that weighted scales are generalizable beyond the organization in which they are measured. The last stage in the BSC model is model evaluation, in which components of the performance perspectives are added, revised, or deleted as performance results may suggest (Kaplan, 1996b).

Measurements of the validity of the BSC model are based on two key parameters: (1) all BSCs use the four general performance measures and (2) the specific metrics within each of the performance measures are unique to each organization. Many analyses of BSC effectiveness were case studies, beginning with the 12 companies that Kaplan and Norton (1992) investigated originally prior to developing the BSC and their later case analyses of performance measures and executive bonuses (1996b). Youngblood and Collins (2003) reviewed one company's performance weighting scale and the correlation among the performance measures. Chan (2001) study reviewed the BSC application of one company in Hong Kong. Malina and Selto (2001) considered a sub-unit of a manufacturing company. A case analysis of one company's BSC design phase reviewed the process that the organization followed to measure its intangible factors. These process tasks included: (1) specifying the organization's stakeholders and their needs; (2) determining the strategic business objectives; (3) identifying the measurement metrics within the BSC perspectives; (4) choosing the critical success factors for each metric; and (5) designing performance measures for each success factor. It took four to six group sessions of two to three hours each for this organization to complete the design of its Balanced Scorecard (Lonnqvist, 2003).

Other case studies included the success of the BSC at a Singapore logistics firm (Chia and Loon, 2000), the BSC in use by a hotel franchisee (Denton and White, 2002), dual measures of intellectual capital and the BSC at a Danish software company (Bukh *et al.*, 2002) and how the Central Intelligence Agency used the BSC to measure the effectiveness of its Human Resource Information System (HRIS) (Hagood *et al.*, 2002). Beyond the case studies, there have also been several

conceptual proposals about how the BSC could be implemented and used, including how the BSC could be established in the healthcare industry (Chow *et al.*, 1998), how the BSC can be used to develop a framework for the assessment of supply chain performance (Brewer and Speh, 2000) and how nonfinancial measures might be applied to the biotechnology industry (Cumby and Conrod, 2001).

Webber (2000) stated that only 10 to 15% of market value is captured by traditional accounting measures for companies in the Standard and Poor 500. Although the focus of external measures has long been the prediction of share value, traditional financial reports may have limited applicability in predicting shareholder value. The limitations of the accounting model are even more pronounced for companies whose balance sheets are characterized by intangible assets such as patents and for whom innovation, intellectual capital and relationships are not measured in the financials (Cumby and Conrod, 2001). Cumby and Conrod (2001) also proposed that using the BSC as part of external disclosure could bring users and suppliers of capital together more cost effectively, thereby reducing the cost of capital. The value of and from intangible assets is often indirect and not recorded on the balance sheet (intellectual capital, for example). The value from intangible assets also depends on the organization's strategy; thus their value cannot be separated easily from the organization's processes. The balance sheet is a linear, additive reporting model, yet the value created from investing in intangible assets is neither linear nor additive. Intangible assets can create value for organizations, but that does not imply that they have market values separable from the value of the firm (Kaplan and Norton, 2001).

The validity of a model is necessary but not sufficient for its reliability. Case analyses use limited samples and case research is qualitative by its very nature. However, there have been several quantitative measures of the BSC. A recent study of managerial motivation and compensation discovered that there is no evidence that the weights of nonfinancial BSC measures are related to their ability to predict financial performance (Ittner *et al.*, 2003). Chan (2001) used the Wilcoxon signed-ranks test to measure the statistical significance of organizational improvements after implementation of the BSC. Although he found that departmental performance in his one-company study improved after BSC implementation, he could not determine the relative contributions among the performance measures and thus could not develop a predictive model from the BSC.

Sim and Koh (2001) studied 83 electronics manufacturing firms in the United States that used the BSC. They proposed that companies that continuously

improve their capabilities, such as the implementation of advanced workplace practices, should achieve better performance in their internal business process perspective which will then lead to better performance in their customer perspective, which *should* lead to improved financial performance. However, they did not measure financial performance. They conducted correlations to confirm Kaplan's and Norton's (1996b) suggestion to use correlations to test the relationships among the four perspectives in the BSC. The independent variables in their study were the workplace practices of TQM-time (time in years of TQM implementation), JIT-time (time in years of JIT implementation), Work Team (number of years that work teams had been used within the organization).

Sim and Koh (2001) conducted three separate OLS regressions against the dependent variables of Change in Market Share, Change in Sales and Change in Manufacturing Costs. The coefficients of all three independent variables were significant to Change in Market Share, although r^2 was only 0.128, suggesting that there are several other variables in the equation that affect the variation in the Change in Market Share. Similarly, the coefficients of all three independent variables were significant to Change in Manufacturing Costs, but r^2 was only 0.17. Only Work Team regressed significantly against Change in Sales, with an r^2 of 0.095. This study's limitations were that it only considered manufacturing firms and it only considered manufacturing workplace changes as predictor variables for the external performance measures of Market Share and Sales. More concerning, however, is that neither TQM-time nor JIT-time significantly affected manufacturing costs.

Hoque and James (2000) examined the relationship between organization size, product life-cycle stage, market position, (BSC) usage and organizational performance. Their model, below, further suggests that BSC usage will have a positive effect on organizational performance.

Organization size was determined as the summed total of three measures: Sales turnover, total assets and number of employees. Product life-cycle stage had four categories, the emerging, growing, maturing and declining stages of a product's life. Market position in this study referred to a company's revenue share in relation to its competitors in a particular market. Organizational performance was measured by appraising five dimensions of performance: Return on investment, margin on sales, capacity utilization, customer satisfaction and product quality.

In a regression of Organization Size, Product Life-Cycle Stage and Strength of Market Position to BSC usage, Hoque and James (2000) found that larger firms

make more use of the BSC and that firms that have a higher proportion of new products have a greater tendency to make use of measures related to new products. A firm's market position was not found to be associated significantly with greater BSC usage. The study also investigated the effect of BSC usage on organizational performance. There was no significant effect on organizational performance for large Vs. small firms, for organizations with products at early life-cycle stage Vs. the mature stage, or for organizations with a strong market position Vs a weak market position.

Stivers and Joyce (2000) measured the perceptions of senior executives in the United States and Canada regarding the ranking of the factors of performance measurement systems. The results indicated that executives perceive customer service factors as most important, followed by measures of market performance and goal achievement. Factors in the innovation and employee involvement categories were perceived to be less important. There were no measures of correlation or cause and effect in this study.

The BSC presently considers internal measures as drivers of outcomes, the external financial measures. The internal perspectives of the BSC address the interests of employees and customers; the external ones address those of the shareholders. But there are other stakeholders in the organization that the BSC does not address, suppliers and the social community within which the organization operates. The real test of the validity of any organization's BSC applications is in their outcomes, its changes in market share, its ROA, ROE and market value changes. Yet those external outcomes may differ between large and small companies and between private and public ones. The truest test of an organization's strategic initiatives and BSC measurements will be told in the market. Customer counts will increase or decrease, market share will increase or decrease and new product acceptance will increase or decrease based on how the company implements its critical success factors. Changes in the public market capital valuations will also reflect how well internal performance and external customer satisfaction metrics have performed.

Kaplan and Norton (2001) echoed a phrase that was first presented in a speech by Zeithaml (1998) at the University of Georgia in 1998. Professor Zeithaml proposed that a necessary suffix to the 4 Ps of the Marketing Mix are People, Process and Profit, although Kaplan and Norton proposed that these are the Key Performance Indicators for any organization. These three constructs are the cornerstones of the performance measures that make up 3 of the 4 BSC perspectives, Internal Business (the Process), Innovation and Learning (the People) and Financial (the Profit). The missing perspective, customers, is derived directly from the

people and the process, reflecting a cause and effect relationship that is alluded to in the BSC framework.

Johnsen (2001) suggested that management should facilitate performance measurement by first identifying the agents' strategies and agency efficiency rather than trying to align the performance indicators for the agents to the multiple stakeholders' preferred outcomes. He proposed that the BSC may have three primary managerial applications. First, it can be used to define relevant performance indicators for complex organizations. Second, the BSC provides a standard by which to gauge the basic premise in information economics, that the benefit of information should exceed its costs. The third managerial application is to educate stakeholders, managers and employees in management control in complex organizations. Sears, Citicorp, AT&T initially built their internal measurements for three of their stakeholders, customers, shareholders and employees, in which they emphasized satisfaction measures for customers and employees. Kaplan and Norton (2001) proposed that these companies moved to the BSC because what was missing from the stakeholder measures were the drivers to achieve the goals. This move from stakeholder measures to the BSC is an indication of a cause and effect relationship between the measures that has not yet been examined.

Research Propositions

The BSC has been proposed as a near-panacea for the strategic management ills that may beset an organization. However, the strategic implications of internal and external performance measurement have not been demonstrated as reliable either for a sample within one industry or across industries (particularly, refer to (Figure 1 below, Hoque and James, 2000). Most of the analyses of the efficiency and applicability of the BSC have been unitary case analyses (Bukh *et al.*, 2002; Chan, 2001; Chia and Loon, 2000; Denton and White, 2002; Hagood *et al.*, 2002; Lonnqvist, 2003; Malina and Selto, 2001; Youngblood and Collins, 2003). The original 1992 design of the BSC was the result of a case analysis of a dozen companies (Kaplan and Norton 2001). Other research proposed BSC design and implementation frameworks with no investigation of ex post outcomes (Brewer and Speh, 2000; Chow *et al.*, 1998; Cumby and Conrod, 2001).

Although the BSC applications are built on the framework of agency theory (Johnsen, 2001; Posner, 2000), there have been few studies that consider the preferences of the principals and demands by them on the agents (Lonnqvist, 2003 is a notable exception), or the implications of principal-agent conflict on the design and development of the BSC. Thus, the weighting of performance measures is not only subjective

(Youngblood and Collins, 2003), it may also be inconsistent, subject to frequent revision (Kaplan and Norton, 1996b) and not generalizable to other companies and industries.

Kaplan and Norton (1992; 1996a; 1996b; 2001) suggested that the performance measures should be highly correlated among themselves. They further posited that there are cause and effect relationships among the performance measures, with the internal measures of the Customer, Internal business and Innovation and learning perspectives as drivers of the Financial Perspective. Frigo (2002) proposed a linear relationship from one perspective to another, although Kaplan and Norton (2001) argued that the relationships are not linear or additive. In addition, the cause and effect relationships are not defined generally in the literature other than on a case basis or in general terms. Moreover, Kaplan and Norton (1996a; 1996b), the designers and primary proponents of the BSC, have stated that performance measures are (or perhaps must be) designed and implemented before cause and effect are determined.

Yet there is a risk in assuming correlation among the performance measures (as suggested by Kaplan and Norton (1992) and tested by Youngblood and Collins, 2003). If multicollinearity exists, the predictive power of an independent variable is reduced by the extent to which it is associated with the other independent variables; thus, as collinearity increases, the predictive power of the all of the collinear independent variables decreases (Hair *et al.*, 1995).

The BSC frame work is inherently easy to understand, design and even to implement. Lonnqvist (2003) found that the BSC could be fully designed in as little as four to six group sessions of two to three hours each. However, the BSC does not adequately consider stakeholder needs and preferences, principal-agent conflict in the design of the strategic objectives, or propose consistent performance measures, even with one industry. Thus, BSC theory does not adequately address any of the following research questions:

- Do the internal and external performance measures of the organization correlate positively with Stakeholders' a priori expectations
- Will an organization that uses the internal and external performance measures of the BSC meet or exceed Stakeholders' a priori expectations
- Can agents of the organization meet or exceed the a priori expectations of all Stakeholders
- What are the Cause and Effect relationships among the BSC performance measures

This study proposes the following, revised model of the BSC, Fig. 2.

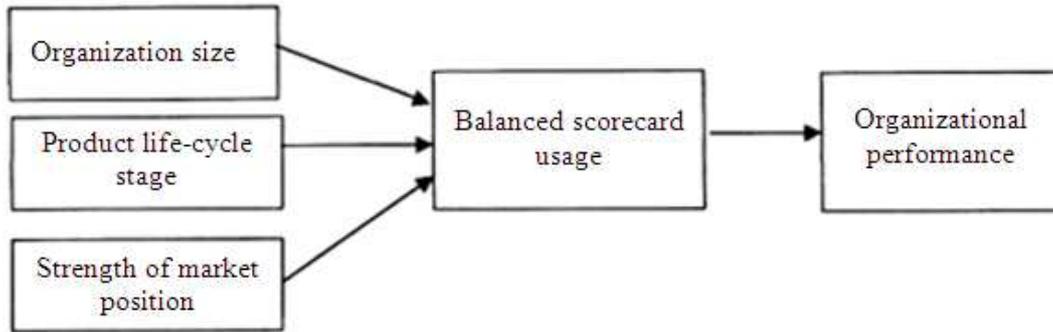


Fig. 1. Framework for the study, Source: Hoque and James (2000)

A Priori stakeholder expectations and modified balanced scorecard performance measures

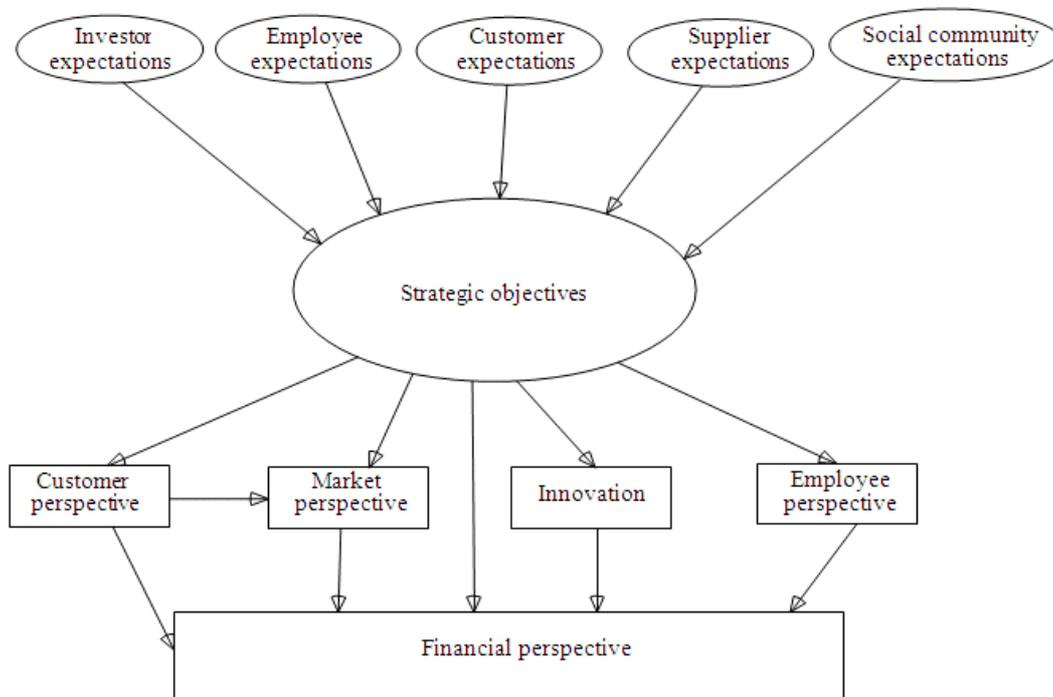


Fig. 2. Modified balanced scorecard model performance measures

The Expectations of Organizational Stakeholders (External-Customers, Suppliers, Owners/Investors and the Social Community; and Internal-Employees) precede the BSC perspectives and these expectations are weighted by the Agents of the organization. The relative weights of the Stakeholders' Expectations frame the *Strategic Objectives* of the organization. However, because the Agents (managers) of the organization determine the weights, the potential for principal-agent conflict exists if the weights are devised such that the Agents' best interests (internal measures) are greater than those of the External Stakeholders'. The performance measures are in turn derived from the

Strategic Objectives. Kaplan and Norton (1992; 2001) suggest that there are four perspectives of a BSC and that the specific performance measures of the four perspectives are distinct among companies. This study proposes otherwise, that the perspectives and their performance measures are different from those proposed by Kaplan and Norton and that they are generalizable across multiple industries and organizations.

Rather than the four measures of the traditional BSC, it is proposed that a modified Scorecard use the following rank-ordered perspectives; these revised measures are modifications of research findings by Stivers and Joyce (2000).

Customer Perspective:

- Customer satisfaction
- Product quality
- Service quality
- Price-value

Market Perspective:

- Market growth
- Change in market share
- New market segments served

Innovation:

- Rate of new product-service introductions
- Technological capability
- R and D productivity
- Innovation

Financial Perspective:

- Change in operating profit
- ROE and change in ROE
- Change in capital market value

Employee Perspective:

- Employee satisfaction
- Employee turnover
- Employee education and training
- Core competencies-new skills acquired
- Internal recognition
- Frequency of changes in corporate culture

It is therefore indicated that, given the absence of extreme Principal-Agent conflict for disparity of expectations or objectives, the following propositions for subsequent research of this model are indicated:

- P1 Customers' a priori expectations are positively related to the performance measures of the Customer Perspective
- P2 Suppliers' a priori expectations are positively related to the performance measures of the Innovative Perspective
- P3 Suppliers' a priori expectations are positively related to the performance measures of the Financial Perspective
- P4 Investors' a priori expectations are positively related to the performance measures of the Market Perspective
- P5 Investors' a priori expectations are positively related to the performance measures of the Innovative Perspective
- P6 Investors' a priori expectations are positively related to the performance measures of the

Financial Perspective

- P7 Employees' a priori expectations are positively related to with the performance measures of the Employee Perspective
- P8 Organizations whose Perspectives are positively related to Customers', Employees and the Social Community's a priori expectations will have a significantly greater Financial Perspective score than do organizations whose Perspectives are not positively related to Customers', Employees and the Social Community's a priori expectations

Framework of a Proposed Study

The proposed research should include both primary and secondary data sources. The variables may be operationalized using the following guidelines. Stakeholders' Expectations may be identified by conducting a cross-sectional survey of B2B employees, customers, investors (in both public and private organizations), suppliers and the social community should be conducted to identify the stakeholders' a priori expectations. An additional literature review should be conducted to identify existing, reliable scales for the performance measures within each Perspective. For those performance measures for which reliable scales are not available, new scales should be developed and tested for construct validity and reliability. Data for the performance measure scales can be collected from both primary and secondary data sources.

Summary and Managerial Implications

The effectiveness of an organization's strategic design, implementation and control processes are clearly central factors in the determination of an organization's continued viability. Kaplan's and Norton's (1992) Balanced Scorecard model was an important addition to strategic management theory and served as a general guideline to help organizations reach their strategic goals. But the BSC model ignores many of an organization's stakeholders, the relationship among the Perspectives of the model are not consistently defined and the underlying message for managers is that all companies are different-therefore how you measure your organization's performance must be different.

This explicit suggestion flies in the face of longstanding strategic measures, including such methods as Benchmarking and Best Practices. Strategic management theory supports the concepts that there is a right way to develop and implement strategic initiatives and that best practices can be applied consistently for all organizations within one industry and even for organizations across multiple industry segments. Executives do have multiple stakeholders and they do have a need to measure their organization's performance

relative to those stakeholders' expectations. The model proposed in this study can reduce the gap between a priori expectations and ex post performance, by ensuring that organizations measure the right things, the right way. Effective implementation of this model will thus enable organizations to satisfy the often exclusive expectations of all stakeholders.

Ethics

Any future research study should consider carefully the ethical implications of primary data acquisition, including respondent anonymity and data security. When delving into matters of expectations among Customers, Employees, Suppliers, Investors, and the Social Community, the researcher may find that there are competing and sometimes contradictory goals among these stakeholder groups; ensuring that the research design incorporates an objective framework so that each group's expectations can be clearly delineated will necessitate an absence of researcher bias. Ethical inconsistencies in defining the financial perspective can be avoided by using either the Standards of the Financial Accounting Standards Board (FASB) or the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB).

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