BALANCE SCORECARD: EVOLUTION FROM PERFORMANCE MANAGEMENT TOOL TO STRATEGIC MANAGEMENT SYSTEM

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Abstract

The article looks in-depth into the generations of models of Balanced Scorecard which differ in terms of how many measures are to be selected under each perspective, how measures are related to perspectives, how measures are related to each other, how all the measures taken together for moving organizations to their chosen destination.

Key Words : Balance Scorecard, strategies, performance scorecard.

Introduction

As the organizations have moved from age of manufacturing to age of customer through age of distribution and age of information, so the parameters of success and the factors affecting achievement of those parameters also got changed progressively. In the age of manufacturing, mass manufacturing made industrial powerhouse successful. In the age of distribution global connections and transportation systems made distribution as key to success. Connected PCs and supply chains controlled information flow dominated the business success stories. In the age of customer, power comes from engaging with powerful customers. So, the organizations and its performance measured in terms of financial parameters (perfectly valid and relevant in previous times) could not ensure its survival in the new age. Hence, search for some combined performance measurement tool started, based on the belief that available methods for evaluating organizational performance based on accounting indicators and financial measures were interfering with the organization's ability to create economic value for the future.

While the phrase balanced scorecard was coined in the early 1990s, the roots of the this type of approach are deep, and include the pioneering work of General Electric on performance measurement reporting in the 1950's and the work of French process engineers (who created the *Tableau de Bord* – literally, a "dashboard" of performance measures) in the early part of the 20th century.

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The balanced scorecard is a performance management framework that became popular during the early 1990s . Its evolution is closely related to the fact that the concept has always had a practical application. This concept has induced changes in the way that organizational management at the global level has evolved in recent years due to its innovation and wide spread use around the world. Balanced Scorecard (BSC) emerged out of this context and evolved over time as follows - initially it was applied to assess the performance of organizations - then it came to be regarded as a management system and a way to implement and communicate strategy - next, the interconnection between the BSC and strategic management was emphasized, particularly in terms of strategic learning, which is related to processes of innovation and hence inevitably related to the human factor within organizations - most recently this tool has been applied in a broader perspective, having moved beyond the internal limits of organizational analysis to the perspective of analysis and monitoring of organizational management systems and their strategic relationships with external organizations (Helena Isabel, 2011).

Strategy Implementation:

". . . great strategy, shame about the implementation . . . " (Okumus and Roper, 1998, p. 218) captures the essence of the problem that strategy implementation has.

Alexander concludes that literature is dominated by a focus on long range planning and strategy "content" rather than the actual implementation of strategies, on which ". . . little is written or researched . . . " (Alexander, 1985, p. 91).

Various studies done in the past indicate that 60% to 80% of companies fall short of the success predicted from their new strategies (Kaplan and Norton, Mastering the Management System, Harvard Business Review, January 2008). It is not because of Managements' inability or lack of efforts in doing so but absence of an integrated set of processes and tools that a company may use to develop its strategy, translate it into operational actions, and monitor and improve the effectiveness of both.

Strategy implementation provides a link between formulated strategy and its realization in terms of operations meeting the goals decided in strategy. Commonly used tools and processes for strategy implementation are quality and process management, reengineering, process dashboards, rolling forecasts, activity-based costing, resource capacity planning and dynamic budgeting.

Strategy implementation is an enigma in many companies. The problem is illustrated by the unsatisfying low success rate (only 10 to 30 percent) of intended strategies. The primary

objectives are somehow dissipated as the strategy moves into implementation and the initial momentum is lost before the expected benefits are realized. The key to success is an integrative view of the implementation process. Strategy implementation differs completely from the formulation process and requires much more discipline, planning, motivation and controlling processes.

Michael L. Werner (2012) has mentioned that there are several reasons why businesses fail to execute strategy:

➢ First, strategy is generally established by the firm's top management. Managers and employees at lower levels are far removed from the process of determining strategy so they are sometimes unaware of the strategy that top management has formulated. Lower level employees are not working to execute strategy because they do not even know what the strategy is.

➢ Second, firms fail to execute strategy, even if lower level employees are fully aware of the strategy, they may feel they are too low in the organization to really make a difference. These employees feel that the work they do is so minor and so far removed from the overall performance of the company that their actions will have very little or no impact on whether the company adequately executes its strategy.

➢ Third, even if employees are aware of the strategy and they feel their actions could contribute to strategy execution, employees may not know what to do to. In this case, the employees know the strategy, they feel that they can make a difference, but they do not know what to do.

➢ Fourth, even if employees are aware of the strategy and know exactly what to do to execute the strategy, they may not act so that the strategy is successfully executed. In this situation, the employees may be in full favour of helping to execute the strategy, but their commitment to the deluge of work necessary to take care of the daily routine of established procedures and business details, they do not carve out time to do what it takes to execute the strategy. They are so busy tending to activities based on their own perception of what they should be doing to deal with daily routine details, they do not take time to stop, think, and act to implement strategy.

"It is like a team of painters so busy painting the front of a building, they do not take time to notice that the other end of the building is on fire and burning down and other activities (helping to put out the fire) are actually more beneficial."

Formulation of a winning strategy that covers all the necessary aspects of businesses and how can we ensure that the strategy is successfully executed? are most relevant questions to be answered by academia and industry experts together. We will try to answer these questions

with the exploration of the aspect how the balanced scorecard can help with strategy development and implementation.

BSC and its evolution

Kaplan and Norton's presented balanced scorecard as an integrative device that would encourage and facilitate the use of non-financial information by senior managers of organizations, with the choice of non-financial measure being driven primarily by "strategic" considerations. They argued that when equipped with this better information, managers would be able to deliver improved strategic performance (Kaplan and Norton, 1992, 1993). The brevity and focus of the balanced scorecard was also presented as having value with respect to the need to efficiently and effectively communicate priorities within organizations (Kaplan and Norton, 1992). Features of BSC in its initial phase can be summarized as:

- A mixture of financial and non-financial measures (Kaplan and Norton, 1992, 1993, 1996a, b).

- A limited number of measures (Kaplan and Norton, 1992), numbering between 15-20 (Kaplan and Norton, 1993) and 20-25 (Kaplan and Norton, 1996b).

- Measures clustered into four groups called perspectives (Kaplan and Norton, 1992, 1993, 1996a, b), originally called "financial", "customer", "internal process" and "innovation and learning", but the last two are renamed "internal business process" and "learning and growth" in the 1996 documents.

- Measures chosen to relate to specific strategic goals – usually documented in tables with one or more measure associated with each goal (Kaplan and Norton, 1992, 1993, 1996a, b).

- Measures chosen must have the active endorsement of the senior managers of the organisation, reflecting both their privileged access to strategic information, and the importance of their endorsement and support of the strategic communications that may flow from the balanced scorecard once designed (Kaplan and Norton, 1992, 1993, 1996a, b).

- Some attempt to represent causality – though it is ambiguous in Kaplan and Norton's work what they mean by this: as noted earlier the 1992 and 1993 papers illustrate links between the four perspectives but do not discuss these links in the text. The Kaplan and Norton (1996a) paper illustrates and discusses the need to show causal links between measures across the balanced scorecard perspectives. The 1996 book also suggests that causality should be between "performance driver [lead]" measures and "outcome [lag]" measures (Kaplan and Norton, 1996b).

The primary focus of initial balanced scorecard was to be a control tool for managers (Kaplan and Norton, 1992). Kaplan and Norton associated the balanced scorecard with what

Muralidharan (1997) calls "strategic control" with "management control" This initial model was named by Gavin Lawerie and Inacobbol (2004) as first generation balance score card and is reproduced below from the article by its originators.
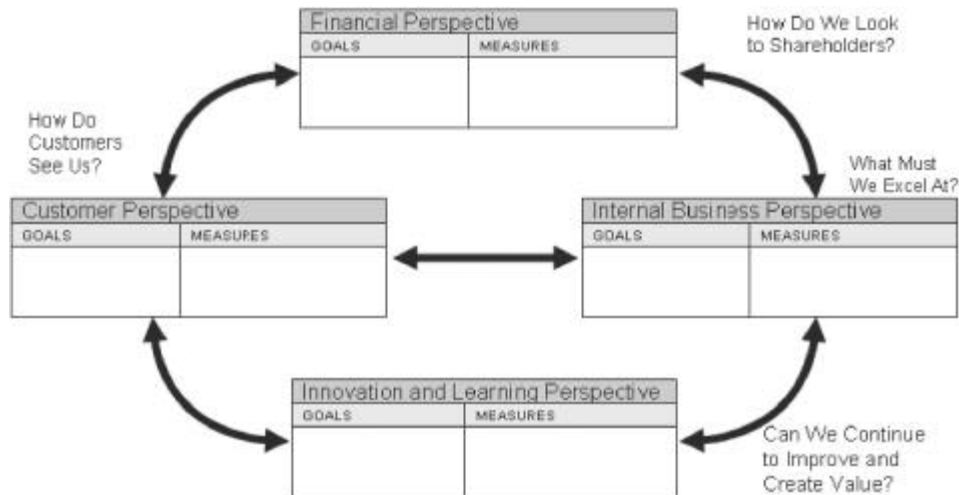

Problems with first generation models: methods used to select measures to be included in the balanced scorecard would be critical to its subsequent success, both in terms of filtering (organizations typically had access to many more measures than were needed to populate the balanced scorecard) and clustering (deciding which measures should appear in which perspectives). In their first paper, Kaplan and Norton had said little about how this measure selection activity could be done, beyond general assertions about the design philosophy, e.g. "putting vision and strategy at the centre of the measurement system", "Companies should also attempt to identify and measure the company's core competencies . . .", "In addition to measures of time, quality and performance and service, companies must remain sensitive to the cost of their products." (Kaplan and Norton, 1992).

Evolution of second generation models ("an improved measurement system to a core management system") the practical difficulties associated with the design of first-generation balanced scorecards were the need to filter (i.e. choose a few specific measures to report), and cluster (i.e. decide how to group measures into "perspectives"). Kaplan and Norton recognized the attitudinal approach to measure selection proposed initially by them (e.g. "To succeed financially, how we should appear to our shareholders?") not good enough and quickly replaced by the concept of "strategic objectives" (Kaplan and Norton, 1993). These were in the form of short sentences which clarified the nature of the "goals" described in their 1992 paper. The innovation was to suggest that there should be a direct mapping between each of the several "strategic objectives" attached to each perspective and one or more performance measures.

The second key innovation concerned causality. Early attempts to define causality were weak, and in the period between 1992 and 1996 work focused on finding ways to show causality between measures. Over time the idea of strategic linkage became an increasingly important element of balanced scorecard design methodology, and in the mid-1990s balanced scorecard documentation began to show graphically linkages between the strategic objectives themselves (rather than the measures) with causality linking across the perspectives toward key objectives relating to financial performance. At the time, diagrams showing linkages between objectives were called "strategic linkage models" – later they were called "strategy maps". The impacts of these changes were characterized by Kaplan and Norton in 1996 as enabling the balanced scorecard to evolve from "an improved measurement system to a core management system" (Kaplan and Norton, 1996b). Maintaining the focus that balanced scorecard was intended to support the management of strategy implementation, Kaplan and Norton further described the use of this development of the balanced scorecard as the central element of "a strategic management system".

In particular, there were key enhancements to the definition given earlier:

- Specific strategic objectives, the design aim being to identify about 20-25 strategic objectives each associated with one or more measures and assigned to one of four perspectives (Olve et al., 1999; Kaplan and Norton, 2000).
- Visually document the major causal relationships between strategic objectives, laying out the results in a "strategic linkage model" or "strategy map" diagram (Olve et al., 1999; Kaplan and Norton, 2000).
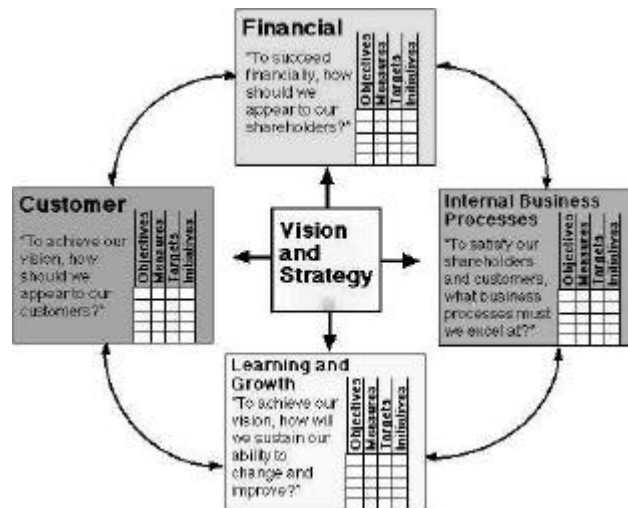
Source: Adapted from Robert S. Kaplan and David P. Norton, "Using the Balanced Scorecard as a Strategic Management System," Harvard Business Review (January-February 1996): 76.

Evolution of third generation models - The standard layout for a strategic linkage model sets causality flowing across the four perspectives (i.e. the four standard "clusters" of measures proposed by Kaplan and Norton, 1992) from "learning and growth" through "internal business processes" and "customer" and ending up at "financial". Complex arguments have been advanced suggesting that for many organizations this causal flow is inappropriate – either because it leaves out one or more important clusters (e.g. Kennerley and Neely, 2000; Brignall, 2002) or because the causality links cannot be justified (e.g. Nørreklit, 2000). The common thread among these concerns is the desire to increase confidence that the balanced scorecard accurately reflects the strategic objectives of the organization, and that the linkages shown are meaningful.

Third-generation balanced scorecard

The third-generation balanced scorecard model is based on a refinement of second-generation design, with new features intended to give better functionality and more strategic relevance. The origin of the developments stem from the issues relating to the validation of strategic objective selection and target setting. These triggered the development in the late 1990s of a further design element – the "destination statement". Destination statements were initially created towards the end of the design process by challenging the managers involved to imagine the impact on the organization of the achievement of the strategic objectives chosen earlier in the design process. It was found that management teams were able to discuss, create, and relate to the "destination statement" easily and without reference to the selected objectives. Consequently, the design process was "reversed", with the creation of the "destination statement" being the first design activity, rather than a final one. Further it was found that by working from destination statements, the selection of strategic objectives, and articulation of hypotheses of causality was also much easier, and consensus could be achieved within a management team more quickly (e.g. Shulver et al., 2000; Cobbold and Lawrie, 2002; Lawrie et al., 2004).

Having established the value of the destination statement as a component of the balanced scorecard as an aid to speedier and more effective design of second-generation balanced scorecard elements, two further benefits were identified:

- In projects aimed at developing multiple balanced scorecards, the value of the destination statement to enable achievement of strategic alignment, without the enforcement of "common objectives" increased the ownership and utility of balanced scorecards within organizations (Guidoum, 2000; Shulver and Antarkar, 2001; Lawrie et al., 2004). In addition to providing operational utility during the design of multiple balanced scorecards, this feature addresses a specific concern characterized by Banker et al. whereby the presence of "common objectives" can substantially reduce the utility of cascaded balanced scorecards (Lipe and Salterio, 2000; Banker et al., 2004).

- In public sector organizations in particular, the rigid definition of the four perspective labels that typifies balanced scorecard definitions can cause problems: The original motivation for the four perspectives was to encourage consideration of non-financial aspects of performance during the selection of measures for the balanced scorecard. This can be done equally well by careful choice of "category" heading for use during the design of the destination statement: reducing the need for the standard four perspectives in the strategic linkage model. With the destination statement driving the selection of strategic objectives it has been found that public sector managers happy to simply choose "activity" and "outcome" objectives, linked with simple causality.

The balanced scorecards that incorporate destination statements and optionally two perspective strategic linkage models are named as "third-generation balanced scorecards". The primary enhancements over a second-generation balanced scorecard are:

- Destination statement. A description, ideally including quantitative detail, of what the organization (or part of organization managed by the balanced scorecard users) is likely to look like at an agreed future date (Guidoum, 2000; Shulver and Antarkar, 2001; Cobbold and Lawrie, 2002; Lawrie et al., 2004; Barney et al., 2004). Typically the destination statement is sub-divided into descriptive categories that serve a similar purpose (but may have different labels) to the "perspectives" in first- and second-generation balanced scorecards.

- Strategic linkage model with "activity" and "outcome" perspectives. A simplification of a second-generation balanced scorecard strategic linkage model – with a single "outcome" perspective replacing the financial and customer perspectives, and a single "activity" perspective replacing the learning and growth and internal business process perspectives (Lawrie et al., 2004; Barney et al., 2004).

BSC as strategy implementation tool

Although BSC as a concept is well received and widely understood its conversion from concept to strategy implementation tool has not been that much smooth.

The balanced scorecard and strategy implementation
Helen Atkinson, (2006) has identified following key issues for successful strategy implementation:

- ➢ effective communication throughout the organization that leads to a clear understanding of key roles and responsibilities of all stakeholders including middle managers, whose role is often pivotal.

> establishment of effective strategic control systems and the way in which these interact with other management and operational control systems. This is important to ensure that an organization can deliver against its strategic objectives.

> Identification of clear performance targets and measures that deliver long-term value whilst mediating short-term demands.

The balance scorecard which provides link between strategic objectives and operational goals, by identifying clear performance targets at all levels in the organization and engages employees at all levels of the organization in the discussion of the strategic priorities may be an answer to the issues above.

According to Lynch and Cross (1995) for any performance management system to act as strategic management tool (to effectively mediate between an organization's strategy and its day-to-day activities) following are necessary condition:

> the system must explicitly link operational targets to strategic goals;

> it must integrate financial and non-financial performance information;

> the system should focus business activities on meeting customer requirements.

Balanced scorecard model that "puts strategy and vision at the centre . . . " (Kaplan and Norton, 1992, p. 79) fundamentally meets all of these criteria.

Successful strategy implementation requires sound mechanisms for directing activity and behavior, Goold (1991), especially including effective communication systems as well as appropriate strategic and management controls.

The balanced scorecard's four perspectives as manifested in Kaplan and Norton's (2004, p. 10) strategy maps provide "a level of granularity that improves clarity and focus" thereby creating clear direction and, potentially, through the development and publishing of the strategy map, facilitate understanding and coordination across the organization.

Sound "two-way" communications within organizations is seen as fundamental to the effective implementation of strategy (Alexander, 1985; Rapert et al., 2002), with a particular emphasis on facilitating useful feedback and "bottom-up" messages (Otley, 1999). The process of creating an organizational balanced scorecard essentially commences with a full strategic appraisal and the clear articulation of the organization's strategic vision and objectives (Kaplan and Norton, 1992) as the balanced scorecard approach makes explicit the "cause and effect" of a strategy, it also usefully converts strategic aims into tangible objectives and measures (Brander Brown and McDonnell, 1995; Kaplan and Norton, 1996b; Martinson et al., 1999). The process of building and utilizing the scorecard provides an opportunity to identify priorities and reconcile different stakeholder demands as well as enhancing strategic feedback and

learning (Kaplan and Norton, 1996a; Denton and White, 2000), thus also enabling effective "diagnostic" control (Simons, 1990, 1994) through the monitoring of financial and other "lag" indicators against pre-set targets (Mooraj et al., 1999).

The balanced scorecard offers a range of additional attributes in addition to substantially meeting Lynch and Cross' (1995) necessary conditions, that may also support successful strategy implementation. It has been shown that the keys to enabling such communications are an organization's "middle managers" who have been shown to play "a pivotal role" (Aaltonen and Ikavalko, 2002, p. 417) and are viewed as strategic "actors" (Bartlett and Goshal, 1996) playing an important role in strategic transformation. The scorecard approach encourages the establishment of co-ordinated scorecards at every level of an organization which, when implemented properly, engage middle managers. Such a process not only necessitates considerable active communication involving everyone within an organization, it also permits the useful integration of such scorecards with management and employee incentive programmes, potentially involving the development of individual/personal scorecards which can be positively utilised to align personal and organization goals and encourage "ownership" (Goold and Quinn, 1990; Giles, 1991; Kaplan and Norton, 1996b; Mooraj et al., 1999; Nørreklit, 2000). Noble states that, "the degree of involvement across the organization appears to be a predictor of implementation success" (Noble, 1999, p. 132); the scorecard facilitates this involvement throughout the strategy implementation process. It is further suggested that the balanced scorecard approach should be viewed as ". . . a template not a strait-jacket . . ." (Kaplan and Norton, 1996a, p. 34). Such a standpoint potentially offers organizations a considerable degree of flexibility to address their unique circumstances while still "pulling" management and employees in the core strategic direction (Kaplan and Norton, 1992). Strict adherence to the scorecards four perspectives cannot be appropriate (Kenny, 2003). This adaptive capacity also assists the balanced scorecard to address Goold and Quinn's (1990) concerns regarding "matching" appropriate control mechanisms to different levels of environmental turbulence and an organization's ability to identify and monitor its strategic objectives. In this regard, Van Veen-Dirks and Wijn (2002) further propose that, additional flexibility (which is needed in rapidly changing market environments) can be provided by augmenting the balanced scorecard approach with critical success factors (CSFs). The explicit incorporation of such factors not only keeps attention focused on an organization's critical strategic objectives (Kaplan and Norton, 1996a), it also avoids the potential danger of management information overload.

Taxonomy of BSC Implementation

Kaplan and Norton's (1996, 2001) BSC construct is a management tool that, when correctly understood and properly implemented:

 ➢ clearly communicates the organization's strategy to its employees;

- ➢ allows employees to see how they contribute to the organization's strategic goals by translating these goals into specific, measurable activities;

- ➢ increases employees' motivation by attaching well thought-out objectives and targets to performance measures and then pays incentives when reached;

- ➢ enhances employees' learning and accountability by measuring and providing feedback on their actions; and

- ➢ enables managers to monitor and update their organizations' strategies as their environments change.

BSC Concept becomes difficult in implementation because of difference in understanding what a BSC is? A CMA Canada study (CMA Canada, 1999) found that the term "balanced scorecard" may be understood differently by managers across organizations or even those in the same organization. Lawrie and Cobbold (2004) note that while Kaplan and Norton (1996, 2001) were effective in motivating managers to adopt a Balanced Scorecard and describing how to use it, they were not helpful with respect to operationalizing the BSC. Bourne (2008) and Pforsich (2006) argue that one reason firms are not getting the full value from their BSCs is that they are not implemented and used properly, which is largely due to the difficulty managers have in properly operationalizing Kaplan and Norton's BSC.

To arrive at a common platform of understanding different researchers have tried to develop taxonomy for level of BSC implementation.

Marvin Soderberg et al 2011 based on their study of large sample of Canadian firms have reported a five level taxonomy of BSC implementation. He identifies two unique sets of attributes of Kaplan and Norton's (1996, 2001) BSC:

(1) The first set relates to the structure of the scorecard, which describes the design of the BSC.

a) **Measures are derived from strategy**; the organization's performance measurement system to be called as Balanced Scorecard, organization's performance measures must be derived from its strategy i.e. the direct relationship between strategy and performance measures is a minimum requirement for an organization's performance measurement system to be classified as a BSC organization. Kaplan and Norton (1996, 2001) say that metrics of BSC must measure those activities which lead to strategy implementation.

b) **Balance among measures**; The second element of "structure" is balance in terms of the number of perspectives of performance, and the number and type of measures in each perspective, (e.g. each perspective should have a similar number of indicators

and there should be a balance between driver and outcome indicators, and financial and non-financial measures) (Kaplan and Norton, 1996) Kaplan and Norton (1996) introduced three additional perspectives of performance beyond the financial dimension:

- ➢ learning and growth
- ➢ internal business processes
- ➢ customer

Together, these four dimensions encourage organizations to clearly communicate the strategic objectives they want to achieve and how they plan to achieve them.

c) **Measures are causally linked** The third element of "structure" pertains to the linkages between the different measures within each performance dimension as well as across the four performance dimensions. According to Kaplan and Norton (1996, 2001), measures should be linked together in a series of driver (leading indicators) and outcome (lagging indicators) relationships, which ultimately culminate in the financial dimension. These cause and effect linkages describe how the organization will create value for its shareholders and stakeholders as reflected in the firm's strategy map (Kaplan and Norton, 2001). Not all measures have to be linked to measures in other dimensions; however, at least one measure in each dimension must be linked to a measure in another dimension.

(2) The second set of attributes relates to BSC use, and describes how the scorecard is intended to be used to manage the organization. Kaplan and Norton (1996) state that the BSC should be the foundation for every organization's management system. They argue the BSC should be used as a device for gathering feedback on the firm's progress, enhancing organizational learning, communicating the firm's strategy, and motivating its employees. In order to achieve these goals, Kaplan and Norton (1996, 2001) propose that there are two "use" elements that a firm's BSC must possess:

a) **Double-loop learning -** Double-loop learning (Argyris, 1991) is at the heart of a dynamic process that updates the organization's strategy as its external environment changes.

b) **Tie-in to compensation**- Kaplan and Norton (1996) state that tying compensation to the BSC is an important implementation step as once compensation is tied to achieving the BSC's objectives, the BSC is more likely to be the cornerstone of the performance management system. Given that Kaplan and Norton do not recommend using the BSC as part of the compensation system until the BSC has been fully tested, tying

the BSC to compensation is a strong indication of the BSC's maturity and importance.

Firms that have a BSC containing each of the three structural elements and the two use elements are considered to have a fully developed BSC.

The BSC taxonomy can be summarized as follow:

- ➢ Level 1 BSC – performance measures are derived from the organization's strategy;
- ➢ Level 2a BSC – Level 1 plus the attribute of balance;
- ➢ Level 2b BSC – Level 1 plus the attribute of causal linkages;
- ➢ Level 3 BSC – Level 1 plus the attributes of both balance and causal linkages;
- ➢ Level 4a BSC – Level 3 plus the attribute of double-loop learning;
- ➢ Level 4b BSC – Level 3 plus the attribute of linkage to compensation; and
- ➢ Level 5 BSC – Level 3 plus the attributes of double-loop learning and linkage to compensation.

Each level denotes a progressively more complete implementation of the BSC by an organization:
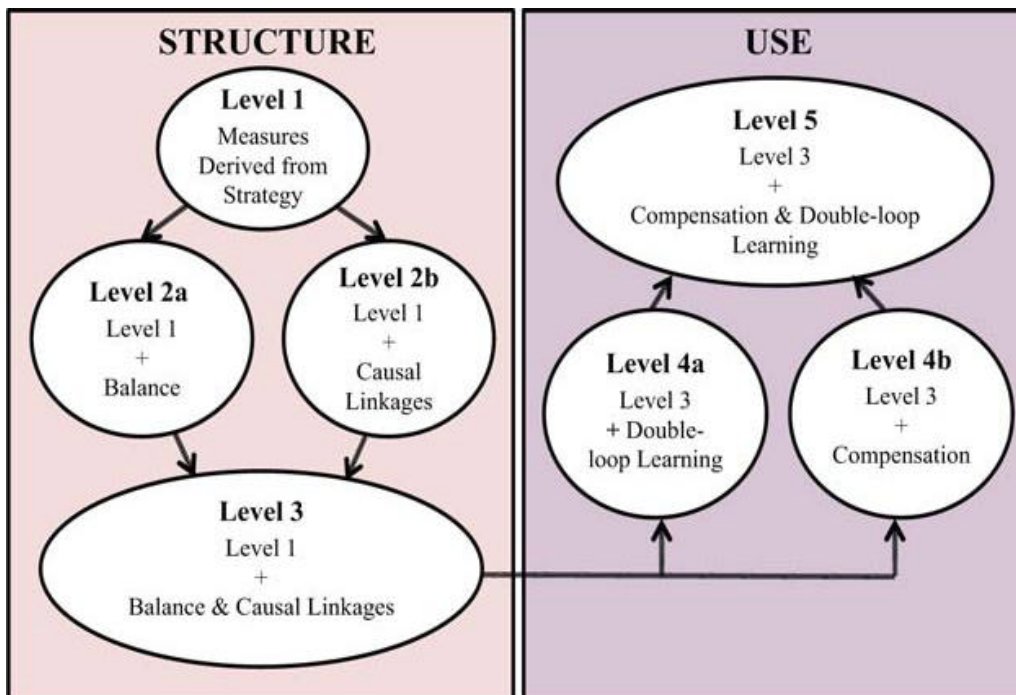
Stemsrudhagen (2004) surveyed 83 Norwegian organizations to explore the degree to which their performance measurement systems include the structural properties of Kaplan and Norton's BSC. The study also investigated whether the properties of the performance measurement systems in BSC companies were different from the properties found in non-BSC organizations.

Speckbacher et al.'s (2003) survey of German, Swiss and Austrian publicly-traded firms' usage of the Balanced Scorecard. Similarly to study of Marvin Soderberg et al 2011, they classify Balanced Scorecards into three different levels of implementation (Speckbacher et al., 2003, p. 363):

➢ Type I BSC: "A specific multidimensional framework for strategic performance measurement that combines financial and nonfinancial measures".

➢ Type II BSC: "A Type I BSC that additionally describes strategy by using cause-and-effect relationships".

➢ Type III BSC: "A Type II BSC that also implements strategy by defining objectives, action plans, results and connecting incentives with BSC".

Causal relationships between specific performance measures corresponding to the four BSC perspectives

BSC provides managers a method of articulating a complex chain of cause-and-effect in the company. This pattern grants executives with a base to handle the drivers of wanted results and consequently, the cause-and-effect chain is crucial to the BSC. In fact, this is the heart of the model - connecting in a causal sequence the performance measures of the four strategic perspectives.

Kaplan and Norton (1996) presume the following underlying liaison: the measures of organizational learning and growth will affect the measures of internal business processes, which will influence the measures of the customer perspective, which, finally, will alter the financial measures.

Source: http://www.business-process-it.com
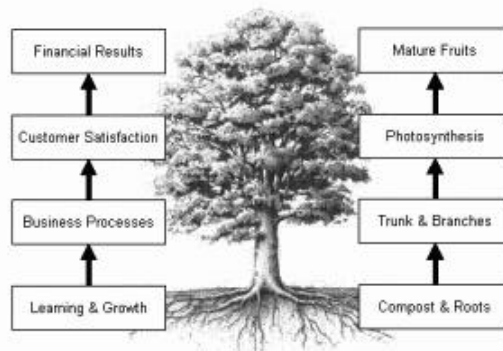
The metrics of organizational learning and growth are consequently the drivers of the performance measures of the internal business processes. The metrics of these processes are in sequence the drivers of the measures of the customer angle, while these performance indicators are the drivers of the financial ones. An optimal balanced scorecard should have a combination of result measures (lag indicators) and performance drivers (lead indicators). Each strategic field should have both lead and lag performance indicators, generating two directional cause-and-effect sequences: lead and lag performance indicators apply horizontally within the sections and vertically between sections. The causal paths from the metrics indicators on the scorecard should be connected to financial goals. This course of action entails that strategy is converted into a suite of hypotheses about cause and effect (Kaplan and Norton, 1996a; Kaplan and Norton, 1996b).

Empirical Findings on Causal relationships between BSC perspectives and also between specific performance measures corresponding to the four BSC perspectives

Kaplan and Norton (2004a, 2004b) emphasized the causal relationships between the four perspectives. Specifically they defined relationships between lagging measures (financial measures) and performance-driving measures (such as internal process and growth and learning). Other researchers (Norreklit, 2000; Tan, Platts, & Noble, 2004) have questioned the assumption of unidirectional causality and claim that the relationships among the four perspectives are actually relationships of interdependence and bi-directional causality. Akkermans and Oorschot (2005) used a system dynamics approach with causal diagramming in order to identify relationships between performance measures of the BSC. Huang and colleagues (2009) showed that by understanding causal relationships and strategy-driven processes, organizations can use non-financial measures to project financial performance. Using a dynamic-integrative model they proved the existence of positive-influence relationships between the learning and growth perspective, the customer perspective and the financial perspective. In addition, they found that internal processes mediate the relationship between the learning and growth perspective and the financial perspective. Patel, Chaussalet, and Millard (2008) used a causal loop model to identify complex relations between performance measures and to examine how a change in one measure affects the rest of the system. Wang, Lu, and Chen (2010) suggested that measures from different perspectives may contradict and refute one another, and therefore that it is necessary to look at hierarchical relationships and vertical relationships among measures.

Yael Perlman (2013) has used path analysis to identify causal relationships between different performance measures in each of the four perspectives defined in the balanced scorecard and examine the influence of time lag on relationships between perspectives by analyzing perfor-

mance data from a real high-tech company.

Findings of the study point to a direct relationship between leading measures in the learning and growth perspective and lagging measures in the financial perspective. Findings also support the existence of a path of "Learning ? Production Efficiency ? Quality", reflecting the fact that the more the organization invests in learning and in developing its human capital, the better the production efficiency and product quality will be in the same year. An additional direct path "Customer Service ?Profit" has also been identified, reflecting a significant positive relationship between the customer and profit in the same year. Finally a "Growth ?Sales" path exists implies that improvement in the growth of the firm is followed by a positive effect on the firm's sales one year later.

M. Punniyamoorthy, R. Murali, (2008), have developed a balanced score for the balanced scorecard as a benchmarking tool of performance. The balanced score for balanced scorecard provides a single value by taking into account all the essential objective and subjective factors – be it financial or non-financial. It also provides suitable weights for those parameters. The target performance and the actual performance are compared and the analysis is made.

They have used preference theory to calculate the relative weights for each factor, using the process of pair-wise comparison. Information from a leading organization was obtained and the balanced score for a balance scorecard was calculated for that organization. This is of value to the top management to identify the important activities and setting suitable target measures to be achieved in those activities. The variations are arrived by comparing the targeted performance with the actual. This will help the firm to take suitable actions under those parameters where there are significant deviations.

a) **Performance Scorecard of IBM** – IBM has its own licensed software which is based on Metrics for performance and strategy management. IBM® business intelligence software includes scorecard solutions that automate the strategy management process that helps to keep an eye on performance. It can be added to business intelligence (BI) content to monitor and manage business metrics, comparing them with the strategic and operational objectives of organizations to make sure business stays on track.

IBM scorecard capabilities help organizations to:

- Track performance based on key performance indicators (KPIs) to link corporate strategy to operational tactics.

- Visually capture organizational strategy so that departments and employees can set priorities and track progress with status indicators and plan versus actual data information.

- Organize scorecards by status to focus on high-priority objectives and set alerts and

notifications to identify problem areas.

- Enjoy simple deployment and management with wizards that guide IT and other users through the scorecard design process and reduce the time spent in scorecard maintenance and updates.

b) Performance Scorecard of Volkeswagen
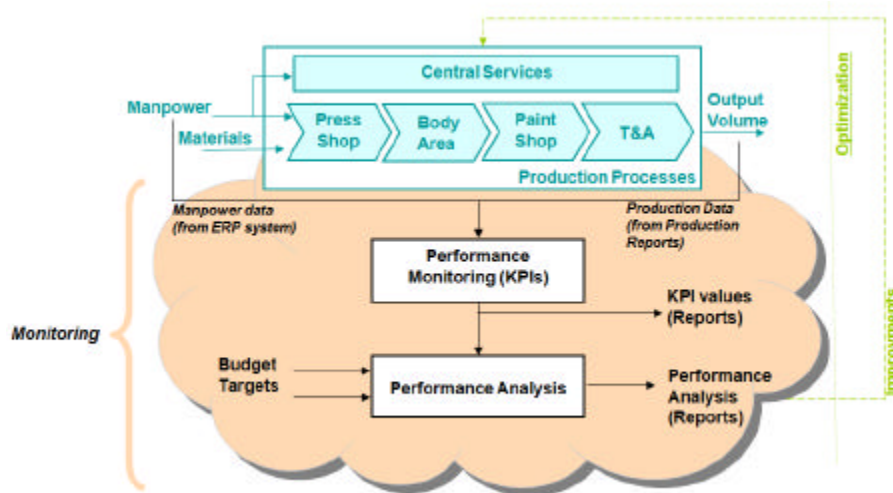
Three KPIs are in use at Volkswagen Autoeuropa. All the three KPIs are related to manpower performance and lay on Production business activity. These three KPIs are Organizational Hours per Unit (OHPU), Hours per Unit (HPU) and Productivity. Organizational Hours per Unit (OHPU) is the ratio between working hours performed by all employees and production volume during a month and cumulatively during a year. It is a core KPI and is also used for benchmarking between the group plants and among the entire industrial sector so the values are arranged in specific splits for comparability.

Hours Per Unit (HPU) is similar to OHPU but refers only to employees related with production process. It is calculated daily and is the ratio between effective working hours and production volume. Effective working hours is obtained multiplying the number of direct employees attending to work and the effective working time considered for the current day (excluding breaks and other possible downtimes).

The KPI Productivity refers to the ratio between monthly production values and the number of employees in each of the organization's areas. These KPIs are the basis for the strategic and tactical levels of performance monitoring and management. Its analysis is the trigger for several improvement and process optimization workshops.

c) **Performance Scorecard of Cognizant**- Cognizant has developed performance scorecard for its Project Managers. The PM Scorecard comprises 21 items in two basic categories. The 11 "skills and experience" items capture the candidate's relevant project management experience, training and certification, the largest project managed and other historical factors that are traditionally considered important. And 10 "competency" items deal with the capabilities and behaviors required. These items have been developed based on observations of leadership styles and effectiveness. They include project management skills, client relationship skills, team leadership skills, independence, contribution to the center, compliance with standards, etc.

Conclusion

BSC having its root in practical application provides a means of measuring organizational performance in the new age. Organizations have been using it for two different but related purposes one for controlling the organization and other as a strategy implementation tool. BSC tries to provide a balance measure of control between past performance indicators (measured by financial perspective) and future performance indicators (measured by other three perspectives viz. Customer, internal business processes and learning and growth). Strategy implementation has always been a complex issue for companies as reflected in low success rate of implementation. BSC gives solution to the problems related to strategy implementation (viz. linking strategy to organizational goal, bringing all on board, establishing cause and effect relationship, adaptive learning or double loop learning)

BSC has been evolving since its introduction and this evolution has been termed by researchers into different generation models of BSC. These generations of models differ in terms of how many measures are to be selected under each perspective, how measures are related to perspectives, how measures are related to each other, how all the measures taken together will be able to move organizations to their chosen destination.

Researchers have also tried to develop taxonomy for BSC. These taxonomies are based on attributes related to structure and use of BSC. Empirical findings have been mixed with newer researches focusing on finding hierarchical relationship between perspectives. To establish causal relationship between perspectives and performances have also been the area of research for scholars. Some of the organizations have developed their own scorecards. Upcoming research area could be identifying variables or measures under each perspective and linking the same with organizational performance both in short term and long term.

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