

Development of the 3rd Generation Balanced Scorecard, Part I

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2GC Active Management

Introduction

This paper describes the changes to the definition of the Balanced Scorecard that have occurred since it became popular as a performance measurement framework during the early 1990s. The paper builds on earlier work by the authors that characterized such definitions into three distinct generations of Balanced Scorecard². The paper relates these developments to literature concerning strategic management within organizations, observing that the changes made have improved the utility of Balanced Scorecard as a strategic management tool. The paper concludes that in order to minimize risk of failure and avoid constraining and inflexible applications that merely serve as elaborate performance reporting systems as opposed to effective strategic management systems, Balanced Scorecard application need to reflect ideas of information asymmetry and the understanding of strategic control processes within organizations.

The strategic information needs of managers

The limitations of financial data as the basis for decision making in organizations has been recognized for a long time³, as has the utility of non-financial data in providing for improved decisions as per Report of the Committee on Non-Financial Measures of Effectiveness (1971). The issue is how an appropriate sub-set of all possible non-financial measures can be identified. As the Committee's report notes "Conceivably, any information might be of use to someone at some future time" (ibid, p198). The Committee asserted that the selection needs to be informed by the trade-off between the practicality and cost of collection, and the expected utility of the data collected: an observation developed later notably by Williamson⁴ and Stiglitz⁵.

During the 1980s, it began to be argued that an organization's strategic policies could be used to inform and justify the choice of non-financial measures⁶. This observation was concurrent with an emerging awareness of the existence of formal control systems within organizations - particularly associated with the control of strategic activity⁷.

One response to these various factors was the Balanced Scorecard: a simple if initially rather vague concept⁸ that has become both well known and (in various forms) widely adopted⁹. Kaplan and Norton 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 performance¹⁰. 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 organisations¹¹. This was expected to directly enable improved performance by 'workers' within the organization. Both these observations have recently been tested and found to have some merit¹².

A definition for a Balanced Scorecard

An unpublished analysis carried out by the authors' in 2001 of the types of questions asked about performance management in online discussion forum found "What is a Balanced Scorecard?" to be by far the most common. Intriguingly, in their writings Kaplan and Norton don't provide a clear definition of what a Balanced Scorecard is, focusing instead on how one might be used, or how it relates to other organizational attributes. However, across their several documents a number of attributes can be deduced. Drawing from Kaplan and Norton's publications prior to 1997¹³, Balanced Scorecard has at least the following attributes:

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

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, 1996b), 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, 1996b).

Measures should be chosen in a way that gains the active endorsement of the senior managers of the organization, 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, 1996b).

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 1996a paper illustrates and discusses the need to show causal links between measures across the Balanced Scorecard perspectives in a fashion that anticipates 2nd Generation Balanced Scorecard features. But the 1996 book also suggests that causality should be between 'performance driver [lead]' measures and 'outcome [lag]' measures (Kaplan and Norton, 1996c).

In this paper we will subsequently refer to Balanced Scorecards that conform to this design as '1st Generation' Balanced Scorecards. Figure 1 shows a diagrammatic representation of Kaplan and Norton's original Balanced Scorecard design, based on that which appears in their 1992 article.

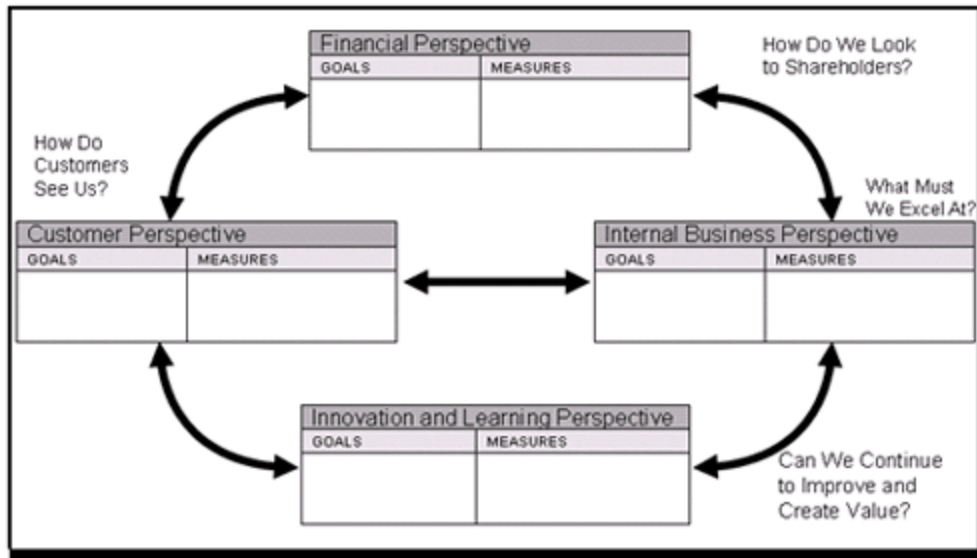


Figure 1 - 1st Generation Balanced Scorecard

The lack of a clear definition from Kaplan and Norton has triggered several attempts by others to provide a definition¹⁴, which are consistent with the 1st Generation definition given above. Where alternative definitions appeared, these usually suggested changes to the number and / or naming of the perspectives¹⁵. In general, the literature endorses the utility of the approach¹⁶, but notes weaknesses in the initial design proposition, and recommends various improvements relating both to the design methods used and the underlying design concept¹⁷.

The need for change

From the outset it was clear that the 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 products¹⁸. However, the design challenges presented by 1st Generation Balanced Scorecard design are severe - as evidenced by the Authors' practical experience working in the field, and reported by practitioners in the literature¹⁹. Likewise, the adverse effects of poor measure selection

on the usefulness and adoption rates of Balanced Scorecard have been noted by several authors²⁰. Generalized approaches to 1st Generation Balanced Scorecard design were described in summary form in 1993 and in more detail in 1996 by Kaplan and Norton²¹. While these were helpful in setting out a wider project plan, they are light on the detail about how the design choices would actually be made. This in turn has triggered a number of 'how to' books and articles that attempt to fill the gap²² - but the fact that such instructional texts are still being published hints at a failure to find a solution. This, in the authors' view, is largely because definition of an effective design process was contingent upon changes being made to the design features of the Balanced Scorecard itself.

2nd Generation Balanced Scorecard

The practical difficulties associated with the design of 1st Generation Balanced Scorecards are significant, in part because the definition of a Balanced Scorecard was initially vague as discussed above. But the difficulties also stemmed from the issues presented by the design questions posed by 1st Generation Balanced Scorecard - in particular the need to filter, and cluster as mentioned earlier. The attitudinal approach to measure selection proposed initially by Kaplan and Norton (e.g. "To succeed financially, how we should appear to our shareholders?") was quickly recognized by Kaplan and Norton as weak, and quickly replaced by the concept of 'strategic objectives' (Kaplan and Norton, 1993): 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. Although subtle, this extra step in the measure selection process transforms the design process from that initially proposed, since it helped particularly with the filtering issue - the strategic objective itself gave a justification for the selection of one measure over another out of the many possible candidates for inclusion in each perspective.

The second key innovation concerned causality. As noted above, early attempts to define causality were weak, and in the period between 1992 and 1996, work focused on finding ways to show causality between measures²³. Measure-based linkages provided a richer model of causality than before, but presented conceptual problems - for example, encouraging the use of various forms of analysis to validate measure selection based on numerical correlations between measures (indeed this is still the case²⁴). Such methods may be efficient at selecting measures, but are difficult to integrate with the need for the Balanced Scorecard design to reflect the consensus views of the potential users of the device noted as a key characteristic above. Nonetheless, over time the idea of strategic linkage became an increasingly important element of Balanced Scorecard design methodology, and in the mid 1990's 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. This transition is neatly illustrated in two papers by Kaplan and Norton from 1996. One published at the start of the year illustrates and describes linkage as occurring between measures²⁵, the second published in the autumn illustrates and

describes linkage as occurring between strategic objectives²⁶. At the time, diagrams showing linkages between objectives were called 'strategic linkage models' - more recently they have been called 'strategy maps'. An example is shown in Figure 2.

The impact of these changes were characterised by Kaplan and Norton in 1996 as enabling the Balanced Scorecard to evolve from "an improved measurement system to a core management system". 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".

Figure 2 - Four-perspective Strategic Linkage Model (Taken from 2GC Internal Documents)

Collectively the changes in design described here represent a materially different definition of what comprises a Balanced Scorecard compared to that described above as a 1st Generation Balanced Scorecard. In particular, we note two key enhancements to the definition given earlier:

Measures are chosen to relate to 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 perspectives²⁷.

An attempt is made to visually document the major causal relationships between strategic objectives, laying out the results in a 'strategic linkage model' or 'strategy map' diagram²⁸.

We will refer to Balanced Scorecards that incorporate these developments as '2nd Generation Balanced Scorecards'.

The design elements that make up the 2nd Generation Balanced Scorecard now represent 'mainstream' thinking on Balanced Scorecard design - as evidenced by considerable consistency of definition across a range of practitioner and academic texts²⁹.

As objectives began to appear in graphical representations of linkages, so they began to require short titles (to fit onto the diagrams). To compensate the idea of 'objective descriptions' associated with strategic objectives emerged. These descriptions, which were simply longer paragraphs describing in more detail the 'meaning' of the objective, are symptomatic of a significant increase in the volume of purely design related documentation associated with the design of Balanced Scorecards - objectives began to be assigned to owners, measures to objectives. Early software reporting systems began to enhance these elements of design information by linking it with measurement data, and using email and diary systems to enable speedy diagnosis and interventions in response to data observed: the ability to store and work with these characteristics are now central to leading 'Balanced Scorecard' software systems³⁰.

Opportunities for further improvement

2nd Generation Balanced Scorecards represent a substantial improvement compared to 1st Generation designs - mainly because the design addresses weaknesses in the 1st Generation definition, and allows for the use of less challenging design processes. Yet concerns persist about definitional weaknesses: whereas the focus of concern with the 1st Generation design related primarily to measure selection ('filtering'), with 2nd Generation designs the focus of concern relates more to how measures are grouped ('clustering'). 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 in 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 organisations this causal flow is inappropriate - either because it leaves out one or more important clusters³¹ or because the causality links cannot be justified³². The common thread among these concerns is the desire to increase confidence that the Balanced Scorecard accurately reflects the strategic objectives of the organisation, and that the linkages shown are meaningful.

On a more practical level, organisations developing 2nd Generation Balanced Scorecards found significant practical problems both with measure selection and target setting³³, and with attempts to rationally 'cascade' high level Balanced Scorecards to lower levels of the organisation³⁴. These problems can be associated with weaknesses in the design approach associated with specific design activities. 2nd Generation Balanced Scorecard design processes assume that interpretation and individual understanding of the Vision/Mission statement or strategic plan on which the Balanced Scorecard is based, is shared among the management team in question, but it does not include any specific activities or design components to ensure that such is the case³⁵. The approach therefore disregards the need to ensure first that the understanding of a vision is in fact shared within a management team before asking the team to identify and agree the actions and intermediate results leading to its achievement. 2nd Generation Balanced Scorecard also carries a potential weakness in who makes the selection of strategic objectives³⁶. Kaplan & Norton's original design approach (1996) suggested that the organisation's strategy be first analysed by a small group comprising key personnel supported by consultants. This analysis could then be used to drive the selection of priorities or strategic objectives on behalf of the organisation's management team. Failure to use a collective approach may, however, weaken the value of the strategy itself³⁷ as well as the efficacy of its implementation due to lack of support from those accountable for executing it³⁸. Finally, the recommended 2nd Generation Balanced Scorecard approach to selecting strategic objectives is decoupled from any consideration of the causality between them. Cause and effect links are only considered "post-hoc". But, as Epstein & Manzoni (1997) argue, the key to linking strategy with performance measures is found in the development of assumptions relating to the prior understanding of cause-and-effect relationships. This view is also supported in the cause-and-effect theories as described by Hedberg (1981) and later elaborated on by, for example, Burke & Litwin (1992).

Additional Information:

To learn more, be sure to review 2GC's seminar *Balanced Scorecard Destination Statements: Know Where You are Going Before You Select Performance Measures*.

2GC is a research led consultancy expert in addressing the strategic and performance management issues faced by organisations in today's era of rapid change and intense competition. Central to much of 2GC's work is the application of 3rd Generation Balanced Scorecard, an approach to strategic implementation, strategy management and performance measurement.

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