



Classification of Balanced Scorecards based on their intended use

2GC Conference Paper

Ian Cobbold and Gavin Lawrie

Presented at PMA Conference, Boston, USA, May 2002

© 2003 2GC Ltd. All rights reserved.

This document is protected under copyright by 2GC Ltd. The following terms and conditions apply to its use: Photocopying - single photocopies may be made for personal use as allowed by national copyright laws. Permission from 2GC and payment of a fee is required for all other photocopying, including multiple or systematic copying, copying for advertising or promotional purposes, resale, and all forms of document delivery; Derivative Works - Permission from 2GC is required for all derivative works, including compilations and translations; Electronic Storage or Usage - Permission from 2GC is required to store or use electronically any material contained in this document. Except as outlined above, no part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of 2GC Limited



2GC Limited
Albany House, Market Street
Maidenhead, Berkshire
SL6 8BE UK

2GC Conference Paper

Abstract

It is difficult to interpret impressive adoption statistics for the Balanced Scorecard without being clear on how it is defined. In practice, it appears, there are wide variations in understanding between organisations.

This paper asserts that the Balanced Scorecard can be used to support two distinct management activities – management control and strategic control – and that planned use should influence the Balanced Scorecard design adopted. The paper describes characteristics of Balanced Scorecards appropriate for each purpose, and suggests a framework to help select between them.

Existing thinking on the concepts of Strategic and Management Control

The management of an organisation involves two key areas, planning and control. Every organisation requires plans (e.g. to determine priorities and resource allocation etc.) and a mechanism by which execution against the plan can be controlled. Whereas planning can be thought of as a process of creating a statement of intent, control can be defined as “assuring that desired results are obtained” (Anthony, 1965). Consider a room temperature control system consisting of a thermostat and a heater. Planning in this case would relate to the determination of a desired room temperature, and setting the thermostat accordingly. Control would relate to the use of the heating system to achieve and maintain the target temperature. In most situations however, control is more complex, where a number of courses of action can be used to effect control, requiring a choice of method as well as of overall goal (Anthony and Dearden, 1980).

Compared to these examples, the ‘control’ of an organisation is considerably more complex: In addition to having a substantial degree of choice about what outcomes to pursue, leaders of organisations, especially large ones, need also to consider the many factors and circumstances affecting control, including the availability of resources, specific and general constraints and the flow of information (Mills, 1966). Therefore, to be effective, decision makers need to combine an awareness of the factors and circumstances that will influence choices made about which outcomes to pursue and how these might be achieved (‘planning’), with a set of tools and skills that will support the communication and implementation of the decisions made (‘control’). While both these activities are necessary, Mills argues that the control activity that is more important: indeed it can embrace the planning element to the extent that a distinct planning function becomes unnecessary (Mills, 1966). In this view, effective control mechanisms are central to the successful management of any organisation.

For control to be effective, it needs to be ‘informed’ about both the activities and results delivered by the organisation, and the organisation’s prior expectations concerning both. To do this, control activity needs to be complemented by “*a means of comparing any state, actual or hypothetical with a standard*” (Vickers, 1958) – in common terms ‘measures’ and ‘targets’. The method of selection of these measures and targets is therefore a key element to whether or not a good control system is effective. In 2GC’s experience, organisations often introduce measures derived from experience elsewhere or benchmarks. Our experience is that measures selected in this way for purposes relating to the general control of the implementation of strategies are often subsequently rejected by the users of the control system because they are not perceived to be ‘relevant’. Others have argued that measures for this type of control system should be selected to represent an organisation’s ‘desired outcomes’ (Anthony, 1965, Kaplan and Norton, 1992; 1996). 2GC’s experience indicates that this perceived lack of relevance may be because control system users are not aware of the ‘implicit’ desired outcome carried with the external measures / targets selected, and so have difficulty working out how to use the information provided by the measure, or sometimes because they find that the implicit desired outcome does not match their own ‘explicit’ views about the future (Cobbold, 2001; Lawrie and Cobbold, 2001). A much better solution is to recognise that the organisation needs to ensure that

the control system adopted reflects accurately its own desired outcomes, and restricts measure selection to those that are relevant to these outcomes. A simple design approach to ensure that a common shared view of organisational desired outcomes are used to inform measure selection is described, based on three stages of development:

Work out what the desired state is

In line with Anthony's definition of control, the starting point should be to determine what the '*desired results*' are and when they should be achieved. We will refer to this desired state as a '*destination*'. It is the destination that provides the point of reference that gives a control system its context.

But who or what determines the destination? For most organisations it is the collective behaviour of the 'top management team' (Mintzberg 1990, Thomson 1967, Penrose, 1957). The role of this group is to use discretionary control of some quantity of assets/resources to 'manage' the delivery of a 'result' on behalf of someone else (usually the ultimate owner of the assets/resources being deployed). It is not uncommon for the elements of the destination to be expressed by the ultimate owners in terms of 'outcomes' sought, rather than course of actions to be followed (e.g. DEFRA, 2002). Where this is the case, it is also the role management team's role to determine some plan for how the destination will be achieved.

Develop a plan for delivery of the desired state

When the organisation has established what the destination state should be, it needs to establish a plan of how to obtain and deploy sufficient organisational resources to ensure its achievement, and to manage the execution of this plan. Much work can be invested in determining the validity of the plan developed – the extent to which this can be done reliably depends in part on whether the context is one of Management Control (in which expected outcomes can be reliably predicted) or of Strategic Control (wherein reliable predictions of the future are by definition difficult). Consensus support for the chosen plan within the management team is probably more important than formal validation, due to a simple behavioural asymmetry. Plans without consensus will be less likely to be implemented as designed (however good they are) (Thomson, 1967). An obstacle to obtaining consensus support is belief by one or more of the management team (based perhaps on specific knowledge of local issues) that a plan, or elements of it, are infeasible plans (Mintzberg, 1990). Thus we can conjecture that plans that receive consensus support are likely to be implemented (right or wrong), and so will benefit from support by a control system (for example to give early warning that the plan chosen is wrong...). Plans that do not receive consensus support may also be infeasible, but whether or not this is true will probably not be implemented anyway.

Determine how to check that the desired results are being achieved

To ascertain whether or not the destination state is being obtained, the organisation needs some form of feedback on activities being undertaken, and the outcomes arising from these activities. As noted above, without measurement it is difficult to track delivery of plans, and so a key task here is the selection of the right measures to inform managers about activity and outcome. But measurement data itself will not ensure that desired results are achieved – the measurement data delivers value by triggering alterations in organisational activity in the light of variations between actual and expected results (Vickers, 1958). Managers need to have access to methods of intervention that will allow the necessary alterations in organisational behaviour needed to respond to such variations between actual and expected results – in common terms a 'control system'.

Planning and Control Systems in Organisations

Planning and control systems have always been present in organisations, however, in the mid 1960s, attempts were made to classify the types of management process found in organisations (Anthony, 1965). Anthony describes three types of management processes:

- **Management control** - the process by which management ensures that the organisation carries out its strategies effectively and efficiently.
- **Operational control** - the process of ensuring that specific tasks are carried out effectively and efficiently.
- **Strategic planning** - the process of deciding on the goals of the organisation and on the

broad strategies that are to be used in attaining them.

The first two are examples of complex control systems. In Anthony's original classification the area of strategic planning was highlighted as a distinct process separate from the ongoing administration of the organisation (Otley, 1999), but the ongoing administration of the business was thought to be so closely aligned to other control activities that a separate category to describe this (what might have been called 'operational planning') was not warranted: non-strategic planning and administration activities were incorporated under the banner of Management Control, though these activities were generally recognised as comprising a distinct activity within Management Control (Anthony, 1965; Anthony and Dearden, 1980).

Since Anthony's initial work an additional management process has been defined in management literature, that of Strategic Control (Harrison, 1991; Bungay and Goold, 1991). Anthony's work on control and planning is a useful starting point to understand the separation between the types of control system that are found in organisations (Langfield-Smith, 1997), and his three management areas will first be described from a historical point of view. Following this a discussion on strategic control will demonstrate deficiencies in this traditional view of management processes and how strategic control has developed to fill the gaps in the original analysis.

Strategic Planning: Strategic planning can be thought of as a formal process to formulate strategic plans (Mintzberg, 1994). The main function of the strategic plan is to articulate long-range the goals for the business (strategy formation). In the traditional model plans are made during the planning stage of the management process and therefore act as the focus for control – almost a starting point from which the organisation can then monitor and control the achievement of its strategic goals. These goals form the basis upon which, according to Anthony, the Management Control function is driven. This view is based on the premise that the targets used in the Management Control activity are set within the Strategic Planning process, and therefore planning in this case is a separate function (Mills, 1966). However, this traditional concept changes when we consider the development of strategic control later in this section.

Management Control: In the traditional view, strategic planning is associated with goal setting for the organisation (Anthony, 1965). In this context, the management control system is designed only once the goals are agreed and aims to inform the management of progress towards these goals. Viewed this way, Management Control is a system of processes only intended to facilitate the achievement of these goals, the goals themselves are taken as given. This view also implies that Management Control is concerned with processes and systems used primarily by line managers (Anthony and Dearden, 1980).

Operational Control: Rather than dealing with the organisation as a whole, operational control systems are more concerned with individual tasks or transactions (Anthony and Dearden, 1980). These types of control systems are highly automatic and are analogous to our simple definition of control in the previous section. This is the most basic level of control process involving little more than regulation.

Strategic Control: The view of three management processes encompassing strategic planning, management control and operational control places heavy emphasis on a discrete planning process not devolved of control but certainly a significant separate entity. In this instance the feedback process and hence the control function serves to ensure that the organisation simply implements the plans without deviation; providing a mechanism to compare targets and performance. Anthony recognised that feedback from those participating in control activities might lead to modifications to both goals and plans adopted. Anthony's original concept was that line managers would act as the focal point for an organisation's control system, and their local judgements would be subsequently incorporated into the approved plans during execution. But it remained unclear how this judgement information would be collected and acted upon, and in practice such feedback was poorly used.

In Anthony's view there is little need for a control system that drives strategic content as there is a separate Strategic Planning function that is informed by Management Control information, but crucially not driven by it (Anthony, 1965). Others have argued that formal separation of strategic planning and operational control can cause difficulties (Muralidharan, 1997). Mills proposed an

alternative approach under which control and planning activities become closely linked. Writers advocating this view (e.g. Mills, 1966; Schendel and Hofer, 1979; Bungay and Goold, 1991) describe a 'strategic control' function that supersedes the strategic planning activity as described in the traditional model. With the addition of strategic control, the management process model now has four elements; Strategic Planning, Strategic Control, Management Control, and Operational Control.

In the first instance Strategic Control initially aims to ensure that strategy is being implemented as planned and that the results produced by strategy are those intended (Schendel and Hofer, 1979). Strategic control systems are designed to ensure that strategic plans are translated into action and ultimately concentrate upon keeping the very top-level of the business focused on the several previously agreed key success factors (Muralidharan, 1997). This is complimentary to the traditional ideas of Management Control discussed by Anthony that focus on all aspects of the plan but at a management rather than a strategic level (Bungay and Goold, 1991, Muralidharan, 1997). Strategic Control bridges the gap between Strategic Planning and Management Control that existed between planning and the lower level control processes.

In addition, the development of Strategic Control has taken much of the need for distinct planning away from the Strategic Planning process. Indeed it can be argued that under this approach, formally separated strategic planning activities are not required at all. Once an initial plan has been formulated it is the role of Strategic Control to continually update the plan in the light of experience and changing circumstance. This diminishes the need to formally revisit the plan at planned intervals: *"The function of control now becomes closely linked with planning, and it serves little purpose to conceive them as separate functions."* (Mills, 1966)

Characteristics of Balanced Scorecards

The Balanced Scorecard is an approach to performance measurement that combines traditional financial measures with non-financial measures to provide managers with richer and more relevant information about the activities they are managing. First introduced in the early 1990s, the Balanced Scorecard concept has become widely known, and various forms of it have been widely adopted around the world. Indeed, the Harvard Business Review, in its 75th Anniversary issue (HBR, 1997), cites the Balanced Scorecard as being one of 15 most important management concepts to have been introduced via articles in the magazine.

The original article by Robert Kaplan and David Norton in 1992 outlined a simple, "4 box" approach to performance measurement (Kaplan and Norton, 1992). In addition to financial measures, managers were encouraged to look at measures drawn from three other "perspectives" of the business (Kaplan and Norton, 1992). In later articles they also suggested that the selection of these measures should link to the organisation's strategic goals (Kaplan and Norton, 1996). However, for all Balanced Scorecards, two common and important design characteristics are the clustering of similar types of measures into groups (often called perspectives), and a focus on limiting the number of measures reported to improve clarity and utility (Kaplan and Norton, 2000). Initially these perspectives were also 'linked together' to highlight the cause and effect relationships (causality) that exist between them; for example the Customer perspective is a major influencer of the Financial perspective (Kaplan and Norton, 1992). As Balanced Scorecard developed the causal relationships were extended to link objectives within perspectives as opposed to simply the overall perspectives themselves (Kaplan and Norton, 1996, 2000). The major weakness of Balanced Scorecard, almost by dint of its very simplistic definition in the original article that introduced the concept (Kaplan and Norton, 1992), stems from, in almost equal measure, the negative impact of poorly thought through changes to the original design that regularly appear when it is implemented (usually in the form of adding or removing perspectives, and changing the labelling of components) (Butler *et al*, 1997; Adams and Neely, 2001), and from use of ineffective processes to select the information that appears on the Balanced Scorecard (whatever its design).

Whether or not it was an original design intention is unclear, but the four 'perspectives' defined initially by Kaplan and Norton (Kaplan and Norton, 1992), powerfully support the concepts of causality introduced later (Kaplan and Norton, 1996). The original four perspectives are defined in a way that makes them both 'complete' and 'orthogonal'. They are 'complete' in so far as no additional

perspective is required to represent any elements of organisational activity that a management team might believe worth of focus. They are 'orthogonal' in so far as it is impossible to deduce the likely contents of any one perspective given information about the contents of any other: for example, while there is a general assertion that the achievement of objectives in the 'customer' perspective can be expected to influence objectives in the 'financial' perspective, the appropriate choice of objectives within each of these perspectives and any causal relationships between them remains unclear until such are articulated by the designers of a Balanced Scorecard. Accordingly, the process of documenting causality at the objective level requires a management team to become explicit about their understandings / beliefs about the reasons why achievement of one objective will influence another: conversely a good challenge to a Balanced Scorecard design is to test the objectives in different perspectives to see if the implied causality is plausible. This use of causality can be a very powerful basis for a method for the selection of objectives (and so measures) to be included in each of the perspectives.

The processes that are required for effective Balanced Scorecard design are necessarily complex – despite the simplicity of the initial concept. In part this comes from two distinct applications for Balanced Scorecard; for Management and Strategic control, which are discussed in more detail below, and more generally from Balanced Scorecard's role as a tool to support a management process. Effective design of a Balanced Scorecard requires the inclusion of substantial information about the management team's task, and their collective understanding of how requirements of the team will be delivered (Olve *et al*, 1999; Niven, 2002). However such requirements demand inclusive participation in the design process from the majority of the management team, and demand sophisticated support and facilitation. Faced with such challenges, many management teams are persuaded to use less demanding design processes, with the result that perhaps a majority of Balanced Scorecards fail. An effective Balanced Scorecard needs to satisfy the requirement of managers for management support tools to provide relevant information.

In general Balanced Scorecard is viewed by academics as a favourable development: "Like all management tools, however, the Balanced Scorecard is not a sufficient condition for success; it cannot do everything! For example, it should not be a tool supporting attempts at management-by-exception and management-from-a-distance. Neither is it a substitute for sound strategy, clear focus and strong alignment of energies within the firm. On the other hand, developing and using a Balanced Scorecard-type of system can help develop these conditions by forcing top management to articulate a strategy and Key Success Factors, and focusing managers' attention on the firm's progress on these elements." (Epstein, 1997)

But the realisation of the potential benefits of a Balanced Scorecard is dependent on how it is used to drive improved performance: simply having a Balanced Scorecard is not enough – it will only be useful if it is appropriately used. At its core, Balanced Scorecard is a tool to support the control of organisations – and in line with the previous discussion, it can be seen to support the two distinct management processes identified: **Management Control** and **Strategic Control**.

Balanced Scorecard for Management Control

As discussed earlier, Management Control activities focus on the 'regulation' of defined operational entities or processes. Accordingly, Balanced Scorecards developed for the purpose of Management Control tend to favour use of 'benchmark' or comparative data – both in terms of the measures selected and in terms of the targets set¹. It is also not uncommon for some element of simulation or modelling to be used to 'calibrate' the measures and targets. The choice of which measures to use is often based the information most easily obtainable, rather than most useful. One characteristic of Management Control Balanced Scorecards is their ability to support rich cross-comparison of several operational units: retail organisations often develop one or more 'standard' Balanced Scorecard designs for a typical outlet, and compare each outlet's performance by comparing each unit's achievement of the common Balanced Scorecard objectives, such as is described occurring in Arran Ltd. (identity disguised), a multi-divisional retail financial services firm (Cobbold, 2001).

¹ This insight is derived from the authors' consulting work. Space limitations and client confidentiality constraints prevent inclusion of examples.

Balanced Scorecard for Strategic Control

When used this way, the role of the Balanced Scorecard shifts from the tracking of performance of a process, to the monitoring of whether or not the strategic choices made by a management team (the strategic plan) are the right ones, and the extent to which the activities planned to achieve them have been undertaken and are working as expected. However it is much less common for management teams to be able to predict at the design stage what interventions will be triggered by an event turning out differently to those anticipated – for example the Balanced Scorecard may indicate that all planned activities have been completed, but that the desired outcomes expected have not materialised. The implication is that the planned activities were inappropriate or insufficient to achieve the desired outcome, but this information is not usually ‘diagnostic’ in the way that can be the case on an equivalent Management Control orientated Balanced Scorecard.

Crosshouse Ltd. (identity disguised), a multi-divisional, multi-national FMCG firm based in UK worked with one of the authors over several years to develop a Balanced Scorecard system for strategic control purposes (Lawrie & Cobbold, 2001). The Balanced Scorecard concept was first introduced to Crosshouse Ltd. in the mid 1990s, and was subsequently used to introduce a new approach to strategic planning and strategic management activities throughout the organisation. The approach adopted was to create a complex interlinked set of Balanced Scorecards that mirrored a new organisational structure being adopted by Crosshouse – effectively a Balanced Scorecard was developed for the management team of each significant node of the top two levels of the new organisational structure. Clarity of purpose within each of these multiple management teams was found to be poor, as was overall shared understanding of the strategic choices being made by the organisations top management team. Accordingly the Balanced Scorecard design process included steps to encourage the communication and understanding both of the choices already made by the centre, and the implication of these and other local priorities on the selection of priority courses of action by each management team (Lawrie & Cobbold, 2001).

Comparison of Design Processes

Management Control can be thought of as a simple form of control where the control is focussed on a set process where the outcomes can be clearly defined. Management Control Balanced Scorecards development processes are therefore focused on understanding the characteristics of the defined environment, and then working out from this understanding what is best to measure and what targets to apply. Many of the underlying operational processes identified within Management Control Balanced Scorecards are similar to those found in other organisations. Hence targets for these measures can be often based on industry standards or any benchmark data available (e.g. from TQM initiatives such as EFQM etc.). Where this type of information is not available, simulation and modelling of the process can be used to help identify the right level of targets. The process described by Kaplan and Norton remains a benchmark development process, although a number of variants have subsequently been developed (e.g. Niven, 2002) for Balanced Scorecards of this type.

The inclusion of the novel ‘Destination Statement’ device in the design of Balanced Scorecards for Strategic Control purposes (e.g. as adopted by Crosshouse) presents challenges to the development process (as time needed to be found to create the statement) that clearly limit the utility of the Kaplan & Norton process. Further, the focus on a need to gain consensus about design elements (destination statement, hypotheses of cause and effect, etc.) encourages the use of design processes that are co-operative group activities involving the whole management team. Such working is distinctly different from the traditional / benchmark design processes first proposed by Kaplan and Norton (Shulver et al, 2000). Use of the original Kaplan and Norton approach can be shown to diminish the utility of the resulting Balanced Scorecard designs as a result of reduced management team ‘ownership’ of the resulting design, and weaknesses in the representation of the actual priorities rather than those perceived by others (an informational failing characterised in Mintzberg 1990).

Framework to assist in the identification of Strategic or Management Control applications

Practical experience has shown that one important factor influencing the success of Balanced Scorecard applications is the selection of a design and development method appropriate to the underlying management application for the Balanced Scorecard. Two tests can help organisations select appropriately. **Scope** - an assessment of the extent to which the outcomes and activities that the

management team is accountable for are within their control. It is possible for management teams to consider elements that are both within and without their control as part of the strategic and management control processes described earlier. A good example of an element that is 'out of scope' but equally of great influence on the behaviour of a management team is market conditions for goods and services. Balanced Scorecards aim to facilitate the management of elements of an organisation that are within the discretionary control of a management team (Kaplan and Norton, 1992). In effect, Balanced Scorecard is solely concerned with elements that are 'in scope'. **Outcome confidence** - the degree to which a management team is confident about its ability to predict the outcome or consequence of activities it is undertaking. A characteristic of Management Control is the extent to which the outcome of key actions can be predicted, and cross comparisons made. But as has been discussed above, a characteristic of Strategic Control is the uncertainty about cause and effect – management teams can hypothesise what may happen if certain strategic choices are made, but the only validation is normally to carry out the choices and see if what happens is what was expected.

A simple matrix can be used to classify management team issues, with axes representing the degree to which they vary in 'scope' and 'outcome confidence'. Two of the regions describe circumstances where use of tools for Management Control and Strategic Control may be of value:

- **Management Control (In Scope and Know Outcome):** Being 'in scope' the elements being addressed by the management team are clearly also controllable, and accordingly the most appropriate response is to consider how such control can be made more effective. As the element is also something about which the management team have a high degree of outcome confidence, this suggests that it would be appropriate to consider tools for Management Control purposes to manage issues that fall into this region.
- **Strategic Control (In Scope and Don't Know Outcome):** Although elements in this region are also 'in scope' and so controllable by the management team, the management team are less confident about their ability to predict the outcomes of activities associated with this element, and as a result the selection and targeting of appropriate activities is harder. Development of a Strategic Control Balanced Scorecard would be helpful to manage issues in this region.

Two of the regions on the matrix describe circumstances where elements are 'out of scope' – i.e. materially beyond the ability of the management team in question to influence directly. For these, it is clear that control mechanisms are not meaningful, but once again, the degree of outcome confidence describes two distinct regions:

- **Benchmarking / Best Practice (Out of Scope and Know Outcome):** For elements for which 'outcome confidence' is high, even if they are out of scope, the implication is that the elements are well defined / predictable. Typically these equate to reference processes and entities that can provide Benchmarking and Best Practice information.
- **Modelling & Simulation / Blue Sky (Out of Scope and Don't Know Outcome):** In this case the organisation lacks confidence in its ability to predict outcomes. Useful approaches to working with elements that fall in this region are those that inform management expectations about things that are unfamiliar, including formal methods such as modelling, simulation, market forecasts etc. and informal methods such as strategic planning, brainstorming etc.

Conclusion

The paper has described how management literature considers management activity relating to control to fall within two categories – management control and strategic control. It has also shown how performance measurement tools such as the Balanced Scorecard, to be effective, need to reflect in their design the issues that underlie each of these two management applications. By considering characteristics of the development and use processes required to create Balanced Scorecards suitable for either one or the other type of management application, we have highlighted how strategic control applications benefit from a Balanced Scorecard design and development methodology that is improved compared to that first discussed by Kaplan and Norton (1992). By considering key

elements that influence management behaviour, a simple framework is proposed that helps management teams determine the appropriate application of Balanced Scorecard to a variety of possible management circumstances.

References

- Adams, C. and Neely, A. (2001). "Using the Performance Prism to boost the success of mergers & acquisitions", Accenture Website, www.accenture.com
- Anthony R.N. (1965). "Management Planning and Control Systems: A Framework for Analysis", HBS Press, Boston
- Anthony R.N. and Dearden. J. (1980). "Management Control Systems", 4th Edition, Irwin, pp.3-20.
- Berry A.J. Broadbent J. Otley D. (1995). "Management Control: Theories, Issues and Practices", Macmillan, pp.3-16
- Bungay S. Goold M. (1991). "Creating a strategic control system", Long Range Planning, Vol.24, No.3
- Butler A. Letza S.R. and Neale B. (1997). "Linking the Balanced Scorecard to Strategy", Long Range Planning, Vol.30, No.2
- Cobbold I.M. (2001) "Implementing the Balanced Scorecard – lessons and insights from a financial services firm – Balanced Scorecard Case Study - Arran", 2GC Website (www.2gc.co.uk)
- Cobbold I. and Lawrie G. (2002). "The Development of the Balanced Scorecard as a Strategic Management tool", Working paper submitted for publication to PMA 2002 conference
- DEFRA (2002). "The Environment Agency's Objectives and Contribution to Sustainable Development: Statutory Guide, Consultation Document", DEFRA
- Epstein M.J and Manzoni J.F. (1997). "The Balanced Scorecard & Tableau de Bord: A Global Perspective on Translating Strategy into Action"; INSEAD Working Paper, 97/63/AC/SM
- HBR (1997). "Harvard Business Review: 75th Anniversary Edition", Harvard Business Review, Sept-Oct
- Kaplan R.S. and Norton D.P. (1992). "The Balanced Scorecard: Measures That Drive Performance", Harvard Business Review, Vol.70, No.1
- Kaplan R.S. and Norton D.P. (1996). "Translating Strategy into Action", HBS Press, Boston, USA
- Kaplan R.S. and Norton D.P. (2000). "The Strategy Focussed Organisation", HBS Press, Boston, USA
- Langfield-Smith K. (1997). "Management Control Systems and Strategy", Accounting, Organizations and Society, Vol.22, No.2, pp.207-232
- Lawrie G.J.G. and Cobbold I.M. (2001) "Strategic Alignment: Cascading the Balanced Scorecard in a Multi-National company – Balanced Scorecard Case Study - Crosshouse"; 2GC Website (www.2gc.co.uk)
- Mills A.E. (1966). "The Dynamics of Management Control Systems", London Business Publications Ltd.
- Mintzberg H. (1990). "The Design School: Reconsidering the Basic Premises of Strategic Management", Strategic Management Journal
- Mintzberg H. (1994). "The Rise and Fall of Strategic Planning", Prentice Hall, USA
- Muralidharan R. (1997). "Strategic Control for Fast-moving Markets: Updating the Strategy and Monitoring the Performance"; Long Range Planning, Vol.30, No.1, pp.64-73
- Niven, P.R. (2002). "Balanced Scorecard Step By Step: Maximising Performance and Maintaining Results", Wiley, UK
- Olve N. Roy J. and Wetter M. (1999). "Performance Drivers: A practical guide to using the Balanced Scorecard", Wiley, UK
- Otley D. (1999). "Performance Management: A framework for management control systems

research”, Management Accounting Research

Penrose E. (1959). “The Theory of the Growth of the Firm”, Wiley, UK

Rigby D.K. (2001). “Management Tools and Techniques: A Survey”, California Management Review

Schendel D.E. and Hofer C.W. (1979). “Strategic Management”, Little Brown, Boston, USA

Shulver M. Lawrie G. and Andersen H. (2000). “A process for developing strategically relevant measures of intellectual capital”, Proceedings from PMA 2000, Centre for Business Performance, UK

Thomson J.D. (1967). “Organizations in Action”, McGraw-Hill

Vickers G. (1958). “Positive and Negative Controls in Business”, Journal of Industrial Economics, Vol.6

Useful Web Resources

2GC Performance Management Frequently Asked Questions
(<http://www.2gc.co.uk/resources-faqs.asp>)

2GC Performance Management Presentations
(<http://www.2gc.co.uk/resources-presentations.asp>)

About 2GC

2GC is a research led consultancy expert in addressing the strategic control 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 the widely acknowledged 3rd Generation Balanced Scorecard approach to strategic implementation, strategy management and performance measurement.

2GC Active Management
Albany House
Market Street
Maidenhead, Berkshire
SL6 8BE, UK

tel +44 (0) 1628 421506
fax +44 (0) 1628 421 507
email: Info@2GC.co.uk
web site: <http://www.2gc.co.uk/>