Balanced Scorecard and Hoshin Kanri: Dynamic Capabilities for Managing Strategic Fit*

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ABSTRACT

Purpose: The paper combines the uses of the balanced scorecard and hoshin kanri as integrative dynamic capabilities for the entire strategic management process. A model is posited for the combination of these long-term and short-term organizational activities as a framework for a senior level to manage a firm's strategic fit as an integrated organization-wide system that links top management goals to daily management.

Methodology/Approach: The resource-based view of strategy is explored for its relevance to how a combined balanced scorecard and hoshin kanri approach serves as a high-order dynamic capability. Examples are given from Canon, Toyota and Nissan, of how core capabilities are managed to show how strategy is executed cross-functionally across a firm's functional hierarchy.

Findings: The strategic management of the organization should consider the long-term strategy as well as the short-term capability. Important to this are: core capabilities and core competences, cross-functional management, and top executive audits, which when managed properly, explicate a new view of strategic fit, as a form of nested hierarchies of dynamic capabilities.

Originality/Value: The paper is the first exposition of how balanced scorecard and hoshin kanri practices may usefully complement each other in strategic management. It is a useful framework for dynamically managing sustained competitive advantage.

Keywords: strategy, strategic fit, hoshin kanri, balanced scorecard, core competences, dynamic capability

Introduction

The aim of this paper is to explicate the role performed by the balanced scorecard and hoshin kanri as integrative dynamic capabilities for strategic management. This involves understanding how a senior level may strategically fit together strategy and operational effectiveness as components of a firm's total strategic management. The scorecard and hoshin kanri are integrative cross-functional approaches used for managing strategic priorities across the functional hierarchy of the firm. They provide firms with an overall capability for sustaining strategic management over time. The scorecard's strength lies in its ability to clarify long-term statements of corporate purpose. Hoshin kanri, on the other hand, is strong as a management system for the deployment and execution of purpose as short-term actions. In fact the balanced scorecard was originally developed from hoshin kanri (Kaplan and Norton, 1993). This paper represents the first exposition of how they might usefully complement each other in strategic management. As a subject for research investigations, this is likely to be a rich and rewarding source for new ideas about how practice can be improved. This is especially so for firms and organizations that seek to mobilise total effort on key cross-functional objectives across the whole organization. One important concern is how to effectively link top management goals to change programmes at an operational and daily management level.

Our exposition begins with a brief introduction to the balanced scorecard, hoshin kanri, and their similarities to each other. We posit a new strategic management model (figure 1) for understanding the elements of the scorecard and hoshin kanri. This makes a distinction between the scorecard as a dynamic capability for longer-term strategy, and hoshin kanri as one for managing its implementation and execution. The components of the model are outlined and discussed finally in relation to wider thinking about strategic management and, in particular, strategic fit.

The Balanced Scorecard

Within the scorecard cannon, the writings of Robert Kaplan and David Norton are paramount. Their original work (1992, 1993) proposed the scorecard as a reference framework for performance management. Later work (1996 and afterwards) emphasised its role as a central part of strategic management. Survey evidence suggests the scorecard is widely used (Rigby, 2003), although it remains uncertain whether it is primarily used for performance management or strategic management (Drury and El-Sishini, 2006; Mackay, 2005). Kaplan and Norton (2001a) make a distinction between two kinds of scorecard in use. These are a strategic form, which concerns corporate level objectives and measures, and an operational form, which applies to a sub-unit level. They note that there is sometimes confusion between what can be taken as a truly strategic measure, and what should really be operational.

The design of the scorecard is the same for corporate and other levels. It is composed of a limited number of strategic objectives and measures grouped into four perspectives. These are financial, customer, internal business process, and learning and growth based. Traditionally, measures of performance are primarily centred on financial indicators. These are typically based on past performance and do not take into account future performance, nor do they necessarily take full account of the improvement of (more intangible) strategic assets. The scorecard offers the opportunity to take these other indicators of performance into account while still allowing managers to retain a focus on short-term financial needs. Even so, some of the scorecard literature has questioned the limited number and the scope of the perspectives (Mooraj *et al.*, 1999), but Kaplan and Norton (1996b) argue that the design is robust enough to serve the balanced requirements of most firms and organizations. The scorecard objectives must be considered and managed as an inter-related single set. The coupling of all the objectives with measures is important, since without measurement the non-financial objectives may be ignored in practice.

Hoshin Kanri

The words 'hoshin kanri' translate as policy management, where 'policy' refers to a statement of a strategic objective and its strategies – sometimes called guidelines. The Chinese kanji characters for 'ho' used in the Japanese language suggest method, while for 'shin' they suggest the light that reflects from a compass needle to show the way. So together they signify a business methodology for direction and alignment. Hoshin kanri developed in Japanese firms as a strategic management approach to enable the corporate level to manage strategic objectives across the functional hierarchy of the firm. It is particularly useful where it is necessary to achieve an organization-wide collaborative effort in key areas of a business (Witcher and Butterworth, 2001). The principle is that every employee should incorporate into their routines a contribution to key corporate priorities. Then, within a relatively short period the firm concerned will have achieved a significant step forward than would have been possible through normal (typically functionally-based) working. Hoshin kanri as a recognisable form emerged during the 1960s in Japan (Akao, 1991). During the time of the transfer of Japanese quality technologies to the West in the late 1980s and 1990s, a small number of Western firms and organizations adopted the ideas; the most emulated is Hewlett-Packard's 'hoshin planning' (see Witcher and Butterworth, 2000).

The Balanced Scorecard and Hoshin Kanri

Arthur Schneiderman developed the first balanced scorecard in 1987, while Vice President of Quality and Productivity at Analog Devices Incorp, a semi-conductor company based in the Boston area (Kaplan and Norton, 1993). There are strong associations between the balanced scorecard in its role as a strategy framework and hoshin kanri. Schneiderman had spent time in

Japan and was in touch with people at Hewlett-Packard, and he used what Kaplan and Norton (1993: 142) acknowledge as a "prototype for the balanced scorecard" to integrate scorecard metrics with hoshin planning, which Kaplan and Norton describe as "a procedure that concentrates an entire company on achieving one or two key objectives each year" and hoshin objectives "included customer service and new product development, for which the measures" existed on the Analog scorecard. In other words, Analog was documenting strategic objectives and measures on a scorecard, which was then used to derive and deploy hoshins through the organization.

The idea of the balanced scorecard's four perspectives is similar to one used within hoshin kanri. This is the QCDE grouping of objectives used in hoshin kanri, where quality objectives and measures (Q), are comparable to those in the scorecard's customer perspective, because customers ultimately define what quality means; cost (C), similarly covers financial objectives and measures; delivery (D), covers process objectives in a similar way to the internal business perspective, and education (E), objectives resemble learning and growth and cover people-based objectives and measures. This similarity of objective categorisation is unacknowledged in the scorecard and hoshin kanri literatures. However, according to Schneiderman (2001), the key to linking strategy to action is not the balanced scorecard itself but the underlying processes that make it work. Elsewhere, he points to a lack of an obvious hoshin kanri type system, which can serve to deploy and manage objectives at a level in the organization where improvement in operational performance is managed (Schneiderman, 1999).

Kaplan and Norton (1996a, 1996b) offer a strategic management system, but this stops short of a methodology for the implementation and management of strategic objectives into short-term priorities at a daily management level. Instead they suggest a corporate scorecard will provide a point of reference for other hierarchical levels to design their own scorecards. So, for example at Mobil, they explain that each business unit developed its own scorecard in light of its local situation. Measures at the individual business levels did not have to add up to a divisional measure, and while unit managers did choose local measures to influence the measures on the divisional scorecard, the measures were not a simple decomposition of the

higher-level scorecard (Kaplan and Norton, 2001). However, while the activities involved, such as a deployment system for this, are unclear, Kaplan and Norton do argue for establishing common and high-level management processes. They maintain this is especially necessary for effective deployment, feedback and review, or it is likely that any success a local balanced scorecard has will not be sustained (*op cit.*).

Strategic Management

The balanced scorecard and hoshin kanri are core capabilities in the sense that each is an approach that is central to the strategic management of the firm. Strategic management is the overall and general management of a firm's, or an organization's, long-term purpose. This definition is usefully broad enough to encompass competitive firms and non-profit organizations, including public sector agencies. Figure 1 illustrates the balanced scorecard and hoshin kanri as complementary capabilities. These sit side-by-side as dual frameworks: the former is represented as long-term strategy, while hoshin kanri is the management of longer-term strategy as its short-term implementation and execution.

[INSERT FIGURE 1 ABOUT HERE]

The balanced scorecard and hoshin kanri are, hierarchically, high order capabilities, which are dynamic in the sense they give to the corporate level a capacity to manage and influence strategic management activities through the organization over time. An effective strategic management system provides the longer-term stability for the firm as a whole to manage and control change in the short-term. Combining the balanced scorecard with hoshin kanri makes this possible. The scorecard in this representation is a corporate level and longer-term component of strategic management. Hoshin kanri, on the other hand, is used to translate

corporate level strategy into short-term components across the functional levels of the firm and organization.

Vision, Mission, and Values

The central point of reference for all strategic management is the clarity of the overall and long-term purpose of the firm and organization. This concerns the rationale or reasons for existence and management. Figure 1 shows three kinds of purpose statement, and each provides a different but inter-linked perspective on the overall rationale. Vision is a desired set of circumstances or a future goal. It is typically aspirational and inspirational and is used to condition the overall sense of direction for the whole organization. Mission is a statement of purpose in terms of what the firm does, typically for its primary stakeholders, and this defines the nature and boundaries of its activities. Values include statements about codes of behaviour, such as ethical standards and responsibilities. Increasingly, firms use values to state the core business philosophies and management methodologies, which everybody should use to carry out their work effectively and properly.

Vision, in its role for determining the direction of change, is made central to most of Kaplan and Norton's work on the balanced scorecard, when strategic objectives are typically defined in terms of a need to sustain a competitive position. Only occasionally do the authors refer to non-profit organization when they suggest mission may be as important as vision for its role in articulating stakeholder interest (Kaplan and Norton, 2001a). In fact all three forms of purpose statement should influence the nature of a scorecard's corporate objectives and measures. There is no generally accepted science to guide this influence; nevertheless, purpose statements should be used together to provide the overall context to continuously examine the basic assumptions of the business and the relevance of the scorecard objectives.

Balanced Objectives

Kaplan and Norton originally envisaged that a consensus on the content of a scorecard would emerge through discussion. In later work (Kaplan and Norton, 1996a, 1996b) introduced the strategy map as a discussion framework, and to help identify cause-and-effect elements on the objectives and measures. The idea is to visually map the routes a firm might take in achieving its purpose. Corporate executives start building a scorecard by a review of the mission statement and values, and from these, develop a strategic vision to clarify the firm's overall goal (Kaplan and Norton, 2001a). Kaplan and Norton (1996b) see the strategy map as a set of hypotheses, which a senior level tests through strategic review. The number of objectives and measures for a corporate scorecard should be limited only to those that progress strategic vision and competitive advantage. This limits the scorecard to between 16 and 28 measures: any more than this makes it difficult for an organization to absorb a strategy (Kaplan and Norton, 1996b). This rules out diagnostic objectives and measures, which monitor if the firm is under control, and which signal when and where non-routine events require immediate managerial attention (*ibid.*). To illustrate the difference between what is strategic and what is diagnostic, Kaplan and Norton contrast how an individual will diagnostically monitor health, getting involved only if something like low blood pressure signals that something is wrong; with a need to strategically develop a career, when an individual must proactively take the initiative to develop their work experience. Diagnostic measures involve managers in reactive and corrective behaviour which involves single-looped learning, while strategic measures involve managers in more fundamental and double-looped learning (Argyris and Schon, 1981).

This separation of strategic and diagnostic objectives is dangerous if it distances a senior level understanding from the strategic implications of the core business areas to result in simple-minded strategies that are incongruent with the capabilities of the wider organization (Mintzberg, 2004). It can also confuse understanding about what is really strategic and what is really operational. Deciding the difference is important for effective strategic management and

its resolution lies in the difference between what is meant by a strategy and what is meant by a business model.

The Business Model: Core Capabilities and Competences

For the balanced scorecard, in terms of furthering vision, strategy is an overall policy to achieve the scorecard objectives. While accepting this as sensible, strategic management should incorporate the firm's business model (Magretta, 2002): that is, a statement of those critical core capabilities that have to be managed effectively if long-term purpose is to be achieved. It is necessary to identify those business areas, typically cross-functional business processes, which are core to the effectiveness of the firm or organization in achieving its longer-term purpose. These core capabilities can be defined as long-term critical success factors, following Daniel (1961) and Rockart (1979), or strategic risk statements (Sharman and Smith, 2004), or as a value chain, including the primary and support activities that create customer value (Porter, 1985). The important point to note for strategic management is that a business model supplies the framework for identifying the overall structure for the senior level to manage the operational effectiveness of strategy. It is important to know the health of the business in order to understand how it can accommodate change. This requires more than leaving the monitoring to other levels of management. Following Yip (2004) by recognising that strategy can be used to change an underlying business model, we additionally argue, however, that the senior level must take a proactive part in a strategic management of operational effectiveness.

Within firms and organizations that apply lean production the specification of core business processes is an important early design stage for the elimination of activities that do not contribute to value (Hines *et al.*, 2002). However, many firms go further and specify their core processes as managing capabilities. So, for example, Nissan uses a more developed corporate business model that comprises thirteen core capabilities (Witcher *et al*., 2007b). These are: cross-functional activities that include hoshin kanri, daily management (nichijo kanri),

production maintenance, standardization establishment, productivity improvement activity, inspection, production control and logistics, personnel and labour management, cost management, quality control (including just-in-time management, process control), engineering capability, parts localization, and purchasing.

Nissan also specifies seven corporate core competences, which it calls its business methodologies and philosophies. These are: daily control, the determination of hoshins (the review of hoshin related work and set up activity), the coordination of hoshin development and deployment for hoshin/business plan and control items, the establishment of control items, analytical and problem solving abilities, check and action taken, leadership and participation by high-ranking personnel. The important thing here is that everybody is expected to sustain and develop their abilities in managing the core areas of the firm. These competences constitute an important strategic resource to Nissan, and the senior level involves itself in an annual audit of proficiency across the Nissan group (see 'Review', below).

In relating strategy and the business model to overall purpose, vision is primarily associated with competitive strategy to sustain change; while mission is primarily a concern for specifying the core capabilities that control operational effectiveness, while values relate primary to core competences and how strategy and operational effectiveness are managed. Seen in these terms corporate purpose serves to provide a firm and organization with its overall theory of the business (Drucker, 1955). Thus the long-term components of strategic management serve to give a platform of stability for managing change through the shorter-term components of planning and execution of strategically-linked actions.

Medium-Term Objectives

Hoshin kanri involves the implementation and execution of strategic objectives. It starts at the senior level with a medium-term plan, designed in the form of objectives set for three successive years. These are normally grouped as QCDE objectives in a similar manner to the

four perspectives of the scorecard (see above). The grouping of objectives in this way began in Japan during the early-1960s when cross-functional management committees were established at Toyota and Komatsu. This reflects a high level of involvement of senior managers in the management of objectives across the organizational hierarchy. The idea is to sustain a senior level management system that actively oversees continuous actions in all the functional areas of the firm on the QCDE objectives (Toyota, 1999). Cross-functional management teams in each of the four objective areas take responsibility for strategic review and report to the full senior management team. This structure drives review through the planning cycle (Koura, 1993). The QCDE scheme, if not the full use of a management committee structure, is universal in Japanese and many Western hoshin kanri companies. Its use creates a harmony of objectives (Soin, 1992), which is practically the same thing as 'balance'. However, the QCDE scheme is less about setting longer-term objectives and measures than to provide the firm as a whole with a common language to facilitate transparency and cross-functional problem-solving.

Medium term objectives are based on the longer-term ones, but also take into account the current status and condition of the core capabilities specified in the business model. There is no reason why at this point the perspectives and QCDE language of objectives should not be linked together directly to use the same labels and language. However, the medium-term plan must not be based solely on the needs of the scorecard, but should also take account of the need to progressively improve the business model and the core capabilities of which it is constituted. In a general sense the scorecard, particularly where a strategy map is used to articulate cause-and-effect issues, provides the desired strategic outcomes, which can be written into a medium-term plan under a strategic theme or challenge (Hamel and Prahalad, 1989). The plan provides the signposts for the firm's near future, which will serve as a basis for setting the annual priorities to execute at the functional levels of the firm. The execution of priorities is shown in figure 1 as a descending sequence of four distinct phrases: focus, alignment, integration, and review (FAIR). These are now considered in turn.

Focus

The focus phase involves the senior level in setting at the centre its priorities for the coming planning cycle (depicted in figure 1 as 'short-term priorities'). This normally involves a senior management team made up departmental and functional heads. The priorities are based on the needs of the strategic themes and medium-term plans, which are reviewed against current status and an analysis of the external environment. The priorities are translated as two kinds of annual cross-functional objective: hoshin and improvement objectives. These are designed to progress the medium-term plan and take into account the weak points of departmental and corporate cross-functional management. The senior management team considers the firm's functional strengths and weaknesses in relation to the firm's core capabilities. In figure 2, the needs of departments (shown at top of the matrix) are considered, for example, in relation to core activities defined by a value chain. The idea is to gauge the implications of cross-functional objectives and strategies for their impact on functional objectives and vice versa.

[INSERT FIGURE 2 ABOUT HERE]

The improvement objectives are specified within the QCDE groups (in figure 2, the scorecard perspectives are represented in brackets) as incremental targets, typically representing annual changes of a few percentage points. The hoshins are more complex since they typically involve innovatory change and a greater organizational effort. A hoshin can be determined to correct a significant weakness across the hierarchical levels of the firm, but more likely they reflect a strategic theme designed to significantly advance the competitive position of the firm. Hoshins are crafted to encourage new thinking about the reasons for existing ways of working. The linking of hoshin objectives with thinking about how objectives can be achieved is important since change should not be effected in ways that are generally dysfunctional to routine functional and operational effectiveness in daily management. On the other hand, hoshin-related activity must not be crowded out by operational expediency.

For this reason, the improvement targets are managed as a check not just on the health of operational effectiveness, but also on the hoshin activity. The QCDE targets are determined to ensure that at any one time the core capabilities are known and are under the control of those managing them. Some Japanese firms refer to QCDE targets as control items. However, they are also active as a powerful lever for maintaining the momentum of continuous improvement. Unlike the hoshins, which are very few in number, perhaps less than half a dozen, the QCDE targets are numerous, perhaps amount to several dozens, and are set without any specification of strategies. The manipulation of cross-functional objectives by senior management establishes a proactive strategy-linked form of change management called kaizen (Imai, 1986). Its importance to the execution of strategy in daily management is largely unappreciated in Western strategic management (Dean and Bowen, 1994), and it was never fully appreciated in the transfer of total quality management (TQM) to Western firms (Lillrank, 1995; Cole, 1998).

Alignment

The hoshins and QCDE targets are given to the other levels of the firm to use as priorities in a participative form of business planning called catchball. This is an iterative activity involving passing draft action plans to and fro among the participating parties (Tennant and Roberts, 2001). It involves agreeing plans at every level of the organizational hierarchy, where teams and individuals have to agree their contributions to the hoshins and QCDE targets. This activity aligns other functional priorities and control systems (including budgets and staff appraisals) to the strategically-linked priorities. Hoshin objectives and the QCDE targets are accepted as given, below the level of the senior management team. Catchball activity is centred on working out the ways of how to achieve them. The emphasis is on the self-management of means rather than a top-down linked set of activities associated with management by objectives (MbO). Throughout catchball, the Pareto principle and other management methodologies (or core competences) are used to lever scarce resources at points where they will have the most impact.

This involves its own level of prioritisation and keeps sub-objectives and means to a low number for practical working. Some hoshins may be too difficult to translate easily into operational plans. These are typically managed as change projects, which can run for extended periods. Typically a hoshin-project takes a complex path through time and involves people from up and down the organizational hierarchy, who may otherwise never work together (for an example of a hoshin project, see Chau and Witcher, 2005). The aim of these projects and of the catchball planning activity generally is to break the hoshins and QCDE targets down into daily management activity that can be managed routinely within normal functionally-based working.

Integration

Typically, hoshin and QCDE related activity is integrated in a form of daily management through PDCA-conditioned TQM. PDCA is the Deming Cycle principle for managing a process of work: where 'P' is plan, 'D' is do, 'C' is check, and 'A' is action (Deming, 1986). The cycle applies to every level of a business process. This is represented in figure 1 by turning of a review wheel: a firm-wide system of review where checks on the progress of objectives and targets in daily management provide data for monthly operational meetings, which in turn provide further information for quarterly strategic reviews, which provide data used in annual reviews. PDCA management is sometimes wrongly referred to as a closed loop or negative feedback system (Simons, 1995), and contrasted with a double-looped (even deutero) based learning system (Argyris and Schon, 1981). Similarly, Benner and Tushman (2003) see TQM as a form of exploitative learning rather than exploratory learning system. This literature is perhaps over-mindful that strategic management is focused on strategic change, rather than the role operational effectiveness has in executing change. It ignores how strategy-linked forms of daily management activities may bring about significant change, not only in the operational processes, but also in medium-term plans and occasionally to longer-term strategy.

Review

The review phase of FAIR is the annual input into the review wheel. It is a senior level review of how the firm as a whole is managing its core capabilities (including hoshin kanri). The most advanced forms are found in Japanese hoshin kanri and involve executives and board members as auditors (Witcher *et al.*, 2007a), and is referred to for such applications as a top executive audit (TEA). It is primarily used to establish what action is required by top management on its strategy (Kondo, 1988). Thus, a TEA is the senior level's check, following the PDCA-cycle principle, on its execution cycle, and provides feedback to the following year's focus phase (shown in figure 1 by a reversed pecked line), when the senior management team take follow-up action and set new hoshins. The 'plan' and 'do' stages correspond to the alignment and integration phases respectively (Witcher, 2002).

The educational character of a TEA for the senior level is considerable as it offers the best chance for senior managers to grasp systematically those facts that reflect on themselves. It serves as a vehicle to stimulate mutual discussions between senior managers and those who execute strategy at functional and daily management levels and helps to clarify operational needs. This goes deeper than an understanding of corrective action to solve immediate issues, which should be dealt with in daily management. Rather, the audit is centred on the use and development of the firm's core competences: that is, the organization-wide business methodologies and management philosophies, and how they are employed to manage the core capabilities or core areas of the firm.

TEAs vary for different firms. In general the activity begins with a short checklist of subjects and issues. This is based on the experience of the pervious audit, as well as on issues picked up during the quarterly strategic reviews, and from preliminary surveys designed to test stakeholder perceptions of current conditions. The checklist is a guide for the senior level only, since the actual process is essentially exploratory. It takes in plant tours and walkabouts to give auditors and employees opportunities to examine and reflect on their daily work. This is an

activity that helps mutual understanding and employee relationships to an extent that routine meetings and reports by themselves are unlikely to achieve. Typically, a TEA makes use of a strategic theme taken from the medium-term plan to differentiate the current audit from previous ones, to keep a degree of freshness in the activity. Finally, a report with recommendations is issued with recommendations that can be followed up in a subsequent audit.

At Nissan each of its seven core competences are used as audit items, which are explicitly examined for the level of practice and learning in each of the thirteen core capabilities. A two-page summary is issued across the corporate group, which compares how different units manage (Witcher *et al.*, 2007b). This includes how people manage hoshin kanri, which at Nissan is specified as a core capability. The seven competences are judged using a set of criteria based on five stages of competency development. Table 1 gives an example of the five-step criteria for the core competence of hoshin development: step 1 rates as no competence, while step five represents full competence. The functional areas, teams and individuals, are expected to understand what a hoshin is for, its link to the medium-term plan, and be able to clarify their contribution. The process is visible and sends messages that confirm top level commitment to core competences as common ways of managing, especially the importance of strategy to daily management.

(INSERT TABLE 1 AROUND HERE]

TEAs in hoshin kanri resemble quality audits, which are used more generally in business and management to check compliance with advanced quality management standards. So, for example, the certified standard used in the United States for suppliers of telecommunications (QuEST, 2001) is one of the best and most comprehensive of these, and this covers best practice management methodologies, including planning and review. However, it is not the same thing, since this and quality standards generally are used to specify and maintain services and product standards; they are not used (directly) to develop strategic

competences and capabilities. Typically, quality systems are used by specialist personnel, and there is no necessary involvement of the top management team and general senior managers.

Performance excellence models are widely used in Western-owned firms for benchmarking best and good practice management. These can be used to specify a firm's core capabilities and competences. A good example is at Xerox, which uses a management framework (which is similar to the European Excellence Model) as part of its hoshin kanri to audit how the firm is being managed in relation to its overall strategic goals (Witcher and Butterworth, 1999). The feedback from the auditing activity has been used at Xerox to design hoshins explicitly to develop the firm's core competence in multi-skilling. However, evidence from the United Kingdom suggests this example is an exception, and that the auditing activity associated with performance excellence models is rarely linked to strategic management (Aydin, 2006).

The Review Wheel (Strategic Control)

Other strategic management frameworks are offered in the literature: notably Robert Simons' (1995) four levers of control, and Kaplan and Norton's (1996a, 1996b) strategic management framework. However, these fail to make a clear distinction between the relationship of the longer-term strategic components (purpose, objectives and a business model) and operational effectiveness in the short-term (the implementation and execution of strategic management). This is a question of strategic control.

Classically strategic control is associated primarily with managing the implementation of a long-term strategic plan (Ansoff, 1965; Lorange, 1980). In contrast, in figure 1, strategic control is shown as a review wheel. It is recognised that this is an idealised representation of review in that activity is on-going, and much of its associated activity is informal and similar to the catchball activity used during the alignment phase. In principle, however, organization-wide review may be conceptualised as a multi-levelled set of hierarchical activity that works bottom-

up. It begins with PDCA in daily management involving routine working, monthly operational management reviews, and periodic (typically quarterly) strategic reviews, and finally, involves TEAs. Data are rolled up continuously from one hierarchical level to another. The perspective at each level is different, but the important thing is that the wheel should be strategically managed so that the following conditions hold: (1) senior management is able to use review data to test the assumptions and conditions of longer-term purpose, the strategic objectives (especially the cause-and-effect of the scorecard), and the business model; (2) review must work as an interactive learning framework for the firm as a whole to incorporate exploitative and explorative learning (March, 1991).

Goodness of Fit

The success of the scorecard is, in one sense, a result of Kaplan and Norton's achievement in removing its ideas from its hoshin kanri roots. Hoshin kanri takes time to develop in any organization. The present appeal of the scorecard is that it appears to be a straightforward approach and therefore tempting to busy career mobile managers who wish to see early business results. It is relatively easy for a level to establish its own scorecard and strategy map (although it is more difficult to link it meaningfully to corporate level strategy). The scorecard and hoshin kanri approaches may represent two alternative ways for ensuring that strategic plans are implemented if they (in the end) represent two fundamentally different cultures: a Western one centred on selecting and monitoring the right measures to drive change (an 'ends justifying the means' approach) and a Japanese culture centred primarily on the capability of a firm's organizational processes in delivering value to the customer (the means contributing towards the ends). The balanced scorecard is strong on the content of strategy, or in other words, things that must be achieved, but it has little to say on how it should be done. In their early work, Kaplan and Norton seem to assume that firms will have the processes, knowledge and organizational

structures that enable a successful deployment and implementation of strategic objectives (Berkeley-Hill, 2002).

The history of the adoption of TQM in Western firms seems to support the idea that Japanese management methodologies and philosophies are difficult to apply properly. Generally, TQM has taken many bewildering forms in Western firms (Cole, 1998; Witcher, 1995), so that many Japanese-owned subsidiaries distinguish for their employees a Japanese form of TQM they call total quality control, a TQM that is involved with both the management of improvement and hoshin objectives (Witcher and Butterworth, 2001). Confusion may be a major reason why effective TQM seems to be difficult for rival firms to emulate effectively (Powell, 1995; Douglas and Judge, 2001). This may be changing. Some observers, particularly from the resource-based view of strategy, see TQM as an established management competence for managing changes and transformations and which helps to sustain competitive difference over time (Doz, 1996). There is also evidence that TQM is undergoing a resurgence (Rigby, 2003), which may be partly the result of an increased popularity for six-sigma. It may be that firms are now beginning to understand quality management as a fully integrated management system, and not as a partial approach that many of the early applications seemed to involve (Witcher and Wilkinson, 1991). If this leads to more participative forms of goal deployment it may have positive results for the management of scorecard objectives (Dinesh and Palmer, 1998).

In early work on the transfer of Japanese practices to Western companies, Oliver and Wilkinson (1988) argued it is not just a question of how particular elements of Japanese business strategy (such as production methods, personnel practices and so on) transfer to a different culture which is important, but how functional strategies and practices fit together as elements of a firm's total strategy. They argue what is noteworthy about successful Japanese firms is the goodness of fit between strategies. The distributed and hierarchical nature of the firm works against the tightness of fit, since different functions and units, particularly in overseas markets, have different interests and represent the purpose of the firm differently. The coordination of activity within firms is an important theoretical area for strategic management,

especially in areas of structure, management control systems, and shared organizational culture (classic work includes March and Simon, 1958; Chandler, 1962; and Mintzberg, 1979).

Conventional top-down and sequenced forms of long-term strategic planning is difficult in terms of its effective implementation and execution (Quinn, 1980; Mintzberg and Waters, 1985). However, an over-whelming proportion of firms employ some form of strategic planning (Rigby, 2003). There is evidence that some of the most peer-admired firms are focusing more on enterprise-wide objectives than on local initiatives and effectively align the organization around a common strategic vision, which is linked to a centralised performance management system focused on enterprise-wide objectives (HayGroup, 2006). These objectives give to managers clear performance targets and provide a focused space for creativity and flexibility at a local level. This echoes Kanter (1983), that firms should not so much as strategically plan their futures as plan their organizations to be strategically capable in the face of uncertain external change.

Porter *et al.* (2000), however, see corporate control in Japanese organizations as overbearing and a barrier on innovative thinking, and only effective in pursuing operational improvement. Ironically, this view of Japanese corporate management could have helped prevent the spread of enabling capabilities such as hoshin kanri to the West. At the time when the Japanese were first introducing cross-functional structure, Western firms were moving away from management by committee towards devolved and divisional forms of corporate control (Jantsch, 1967), and this may have contributed to a neglect of cross-functional management in Western firms. The importance of cross-functional management is likened by Ishikawa (1990) to the use of woof in making cloth: only when woof and warp (the horizontal and vertical structures) are intertwined will cloth be manufactured, and without woof, warp remains only a thread. So, similarly, only when cross functional management intertwines with the management by divisions will a firm's organization fit together strongly enough to achieve its overall strategic purpose.

Porter (1996) observes that the importance of the strategic fit of the functional areas of the firm is one of the oldest ideas in strategic management. He argues that a total view of the

firm has been supplanted by partial concepts: he names core competences, critical resources, and key success factors. Classically, fit concerns how a firm matches its internal capabilities to the external opportunities in its environment. Pettigrew *et al.* (2003), though, contrast different views of fit from different organizational theory perspectives. In particular they support a view of complementarity theory (Milgrom and Roberts, 1990, 1995) that strategic fit is about how complementary resources work together to reinforce and sustain competitive advantage. They suggest this is compatible with Porter's (1996) use of fit to explain how sets of strategy related activities together build up a position of competitive strength, which also acts to preclude doing other (non-strategic) activities. Porter introduces the idea of mapping these activities, which is similar to the strategy map, and which could be used to take account of Porter's activities and to identify cause-and-effect trade-offs. Pettigrew *at al.* maintain that a systems perspective is necessary to understand the process of managing strategy and change. They cite the early example of the McKinsey 7-S model (Peters and Waterman, 1982; Pascal and Athos, 1982) as a good example. Much of this work was inspired by Japanese examples. The weakness of the complementarity perspective is that there is no one (obvious) way for the management of strategic activities to achieve effective performance. Rather the synergic interaction of capabilities differs between firms because of the way competences vary, and for contextual reasons that give a firm its uniqueness. Some observers maintain there is now widespread evidence to indicate there is no one best fit or best organizational model, but that practices should be firm specific and relevant to the firm's strategic and environmental contingencies (Edwards *et al.*, 2004).

The Resource-Based View

Over the last 10 or 15 years the most influential school of strategy to emerge has been the resource-based view of the firm. This understands a strategic approach to be based on the development of firm-specific strategic resources and the internal capabilities to manage them.

A central issue has been the possibility of rigidity in core competences. These competences develop at least in part from organizational learning and involve complex working and the development of specialist problem-solving and knowledge. However, they lock a firm into a trajectory that puts it at risk if it proves difficult for the firm to respond quickly to sudden external change (Tushman and Anderson, 1986; Dierickx and Cool, 1989; Leonard Barton, 1992).

Prahalad and Hamel (1990) argue, however, that risk is manageable if core competences are used to serve unrelated markets. They define core competences as the abilities of employees to learn how to develop and manage strategic capabilities, especially how to integrate different technologies through cross-functional management and collaborative working. (This is very similar to how Nissan define their business methodologies and philosophies as core competences; see above.) Prahalad and Hamel argue that core competences can be used to build a core product, such as Canon's expertise in optics to serve markets as diverse as cameras, copiers, and semi-conductor equipment. Canon's competitive advantage is thus an internal capability not easily seen or understood by its rivals. While Prahalad and Hamel do not explain how collaborative forms of cross-functional management are managed, this is done through hoshin kanri, and in this sense it is Canon's strategic capabilities rather than core competences that constitute the higher order activity. In Prahalad and Hamel (1990), the core competences (collaborative learning) manage core products (the technological expertise), and it how Canon dynamically manages these capabilities that really counts (Stalk *et al.*, 1992).

In their seminal article, Teece *et al.* (1997), define a dynamic capability as a capacity to renew competences to achieve congruence with a changing business environment. Strategic management as a dynamic capability adapts to, integrates, and reconfigures internal and external organizational skills, resources, and functional competences, so they strategically fit the requirements of change. This capability is necessarily a high-order one, in that it is a whole firm activity that influences other hierarchical, but partial, capabilities and competences. For figure 1, strategic management is shown comprised of two high-order dynamic capabilities: the balanced scorecard, and hoshin kanri. As an example of a dynamic capability, Teece *et al.*

(2000) give a detailed description of Fujimoto's (1994) account of production activities in the Japanese auto industry. This identifies the Toyota Production System (TPS), an advanced form of lean production, as a high-order dynamic capability. This is not the only dynamic capability at Toyota. Hoshin kanri is used to manage and integrate not only the TPS, but also other important dynamic capabilities, notably Toyota's integration of its supply chain (Kurogane, 1993; Monden, 1998; Hines, 1998). In this way, hoshin kanri is a higher order dynamic capability, within which second-order dynamic capabilities are nested (Winter, 2003). Teece *et al.* (1997) argue a dynamic capability is difficult for outsiders to fully understand and that it cannot transfer between firms in a complete sense. So a similar application will always be different in different firms and this is particularly so with complexity.

Eisenhardt and Martin (2000), in another influential paper, define dynamic capability more simply as any cross-functional routine used to reconfigure combinations of strategic resources as conditions change. Dynamic capabilities are cross-functional business processes such as strategic decision making, product development routines, co-ordination processes for internal collaborations, knowledge creation, alliance and acquisition processes, and market exit routines. We regard these examples, taken from Eisenhardt and Martin, as lower order capabilities, in that they nest within the Teece *at al.* definition of strategic management as a dynamic capability, and in the terms in which we define strategic management for this paper. Eisenhardt and Martin maintain that common features exist that can be benchmarked and shared as best practice between firms: just as there are better and worse ways to hit a golf ball, there are more or less effective ways to execute dynamic capabilities.

In this paper we hold to the Teece *at al.* view of dynamic capability, with the emphasis they place on the capacity to renew competences. We argue that a combined strategic management of the scorecard and hoshin kanri makes them high order dynamic capabilities, because they enable a senior level to manage cross-functional processes, including those that Eisenhardt and Martin describe as dynamic capabilities. Here is a new view of what is meant by strategic fit: this is the fit of a hierarchy of nested dynamic capabilities. This is touched on in several places in the literature (notable, Winter, 2003), but it has still to be examined. This is

especially so in relation to complementarities, where the notion of inter-linked capabilities in understanding a senior level's strategic management would, in our view, be a major advance. It would, at the very least, help colleagues to better understand a difficult (even hidden) phenomenon like hoshin kanri. The literature has still to properly explore its empirical foundations and explicate in more detail its theoretical implications for general practice.

Conclusion

In summary, this paper argues for a complementary use of the balanced scorecard and hoshin kanri. The balanced scorecard is a valuable approach for the translation of longer-term purpose into strategic objectives and strategic themes. These can be managed alongside the firm's model of its core capabilities and competences. These are concerned with the management of longer-term operational effectiveness and do not typically appear on a 'strategic' scorecard. Hoshin kanri is used as an implementation and execution system. This is used to translate scorecard objectives and the needs of the business model firstly into medium term plans and challenges, and then as short-term priorities within the annual planning cycle. Hoshin kanri brings advantages to execution that include the specification of a vital few hoshins, and the determination of improvement targets to drive and sustain the momentum of change; participative planning; a PDCA-cycle based learning approach for the management of objectives, and a senior level involvement for understanding and developing competences in core operational capabilities. A key aspect of hoshin kanri is its insistence on only a very few hoshins to focus attention on those cause-and-effect relationships at an operational level that require breakthrough in performance. Following the Kaplan and Norton cannon, the scorecard is primarily about the longer-term strategic objectives and measures. The issue is how to ensure that people understand longer-term strategy so they are able to understand how strategy can inform their activities in daily management, and how operations inform strategy. The resource-based view of the firm was used to portray dynamic capabilities in the light of such examples

from Canon, Toyota and Nissan, to argue the synergistic combination of the balanced scorecard and hoshin kanri as nested forms of dynamic capabilities for the organization-wide management of the strategic fit of strategy to operations.

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Figure 1: Two Dynamic Capabilities for Strategic Management

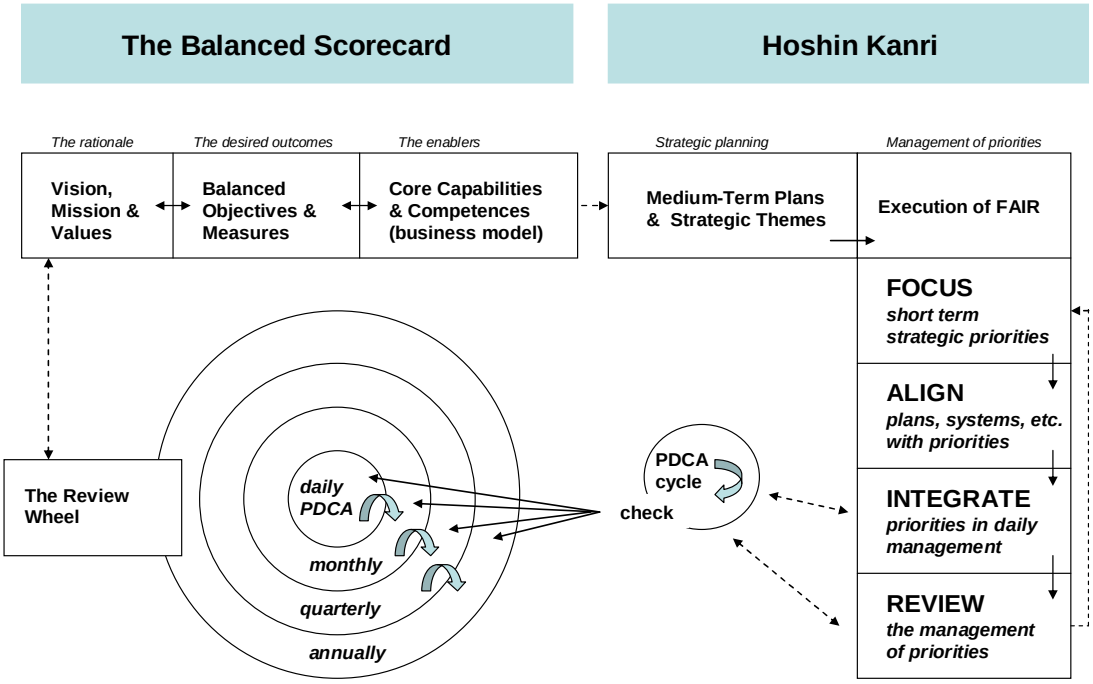

Figure 2 The Determination of Annual Objectives at the Senior Level

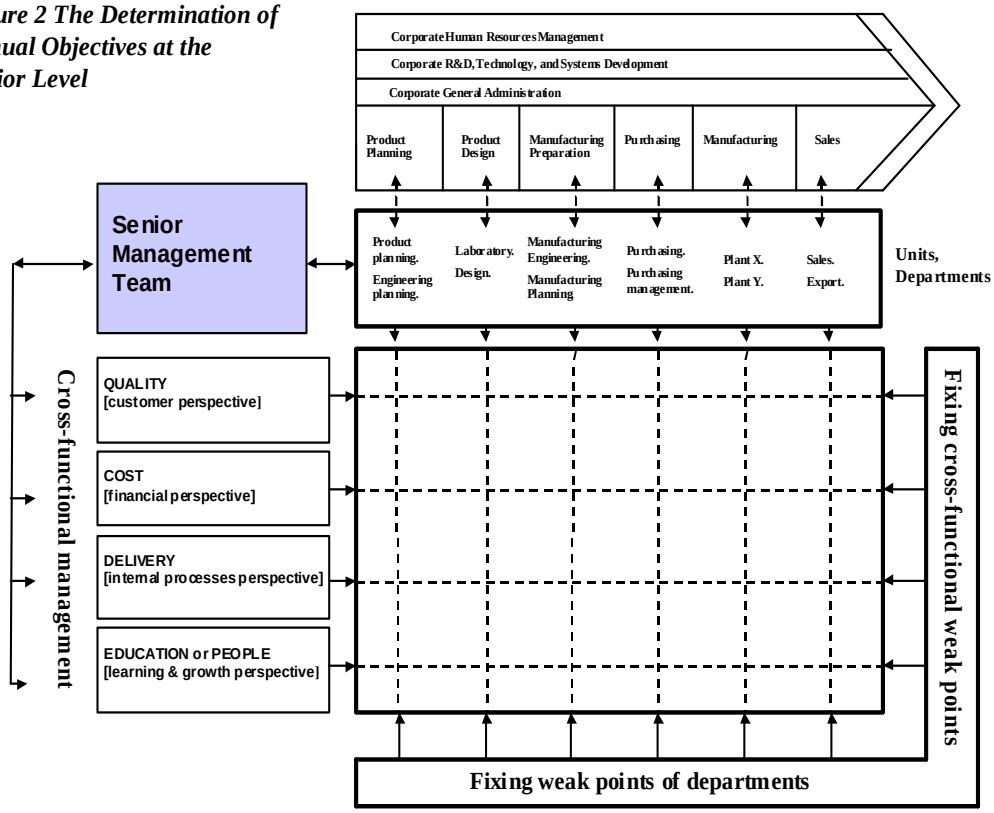

Table 1: Example of steps for competence: the core competence of being able to develop hoshins

1st step:
- Hoshins are contained in slogans meant for everybody.
- Measures not determined even though objectives exist.

2nd step
- Hoshins resulting from precise definition of desired objectives.
- Not concentrated to the vital subjects in this year.
- Objectives and measure have been determined.
- Measures determined without understanding present situation.

3rd step
- Accurate formation of aim through distillation of the year's important points.
- Annual plan and mid-term plan (3 years) are not matched.
- Understanding is present related to objectives, establish measures.
- No analysis done, but have decided measures through experience.

4th step
- Emphasis placed on the formulation of hoshins with solutions, based on review.
- Annual plan and mid-term plan are matched.
- Set up measures by using QC method for grasping problem.
- Procedure of policies determination has been laid down as rule.

5th step
- Formulation of the year's hoshins, which bear a relation to middle term plans.
- Understood present situation, make clear contribution rate for each factor.
- Revision of hoshins is being done appropriately.