Literature Review on Performance Measurement and Management
Prepared by The Centre for Business Performance, Cranfield School of Management
for The IDeA and Audit Commission Performance Management, Measurement and
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**What is Performance Management?**

There are few comprehensive definitions of Performance Management. HM Treasury describe Performance Management as “*Managing the Performance of an organisation or individual*”\(^1\). Whilst this is not a precise definition grounded in literature it demonstrates the breadth of performance management and hence the difficulties in defining its scope, activities and practices. It demonstrates that performance management is concerned with the management of performance throughout the organisation and as a result is a multidisciplinary activity.

Further, in their Glossary of Performance Terms\(^2\) the Improvement Development Agency further suggest that

> “it involves you understanding and acting on performance issues at each level of your organisation, from individuals, teams and directorates, through to the organisation itself.

> As well as involving performance measurement, systems and processes, performance management is about managing people and ‘the way people within an organisation operate and work together’. Issues such as leadership, decision making, involving others, motivation, encouraging innovation, and risk taking are just as important to bring about improvement”

This definition further demonstrates the breadth of the subject highlighting some of the activities involved in managing performance, requiring a range of different skills and functional approaches. This provides challenges of terminology when we discuss the subject. Academic research in particular tend to be undertaken in functional subject areas and often within organisations managers sit in functions and take a functional perspective on the subject of performance.

Despite this the clear multidisciplinarity, the field of performance management has developed from diverse origins. Different measurement and management techniques and approaches have developed independently. Financial and particularly management accounting have been concerned with measuring and controlling the financial performance of organisations, operations have been concerned with “shop floor” performance often focusing on improving throughput and efficiency whether that be from a manufacturing or a service perspective, strategy have been concerned with developing plans to deliver future objectives (including planned performance) and personnel (or HR) have been concerned with managing the performance of people. It is relatively recently that performance management from these disparate disciplines has begun to converge and recognise the need for integration into a multidisciplinary approach to managing performance.

The management discipline which most often associates itself with the term is in Human Resources, performance management is often associated with the management of the performance of people. However even in the HR field best practice emphasises the contribution of people to the achievement of organisational

\(^1\) HM Treasury (2001) “Choosing the Right Fabric”

\(^2\) IDeA, Glossary of Performance Terms
performance. From the HR field Armstrong and Baron\(^3\) highlight the importance of performance management being strategic, integrated (vertical, functional, HR integration and integration of individual needs), concerned with performance improvement and concerned with development.

The breadth of the subject area and lack of a concise definition make it difficult to identify the boundaries of what is and isn’t performance management. The area which is most indicative of the evolution of performance management, and the area perhaps has the most identifiable stream of literature is that of performance measurement, and in particular that of the Balanced Scorecard, with which in many people’s eyes it has become synonymous. The Balanced Scorecard began life as an operational tool designed to measure and help improve operational performance in a manufacturing organisation. Once discovered by an accounting Professor, Bob Kaplan, its scope broadened to the measurement of organisational performance. It has now developed from a measurement tool into a strategic performance management approach of which measurement is but a small part. Balanced Scorecard is a much used, and abused term, in the field but it is the most identifiable concept. However in order to study performance management the comprehensiveness of the subject must be reflected, recognising its vertical and horizontal spread throughout organisations.

With its origins in different management disciplines, performance management includes a variety of activities including the planning and execution of actions required to ensure performance objectives are achieved. Literature is drawn from various disciplines to reflect this.

**What is Performance Measurement?**

The area in which the multidisciplinary nature of performance management has been most extensively and effectively investigated is that of performance measurement. Themes from the fields of strategy, accounting and operations management have converged to form a field that is developing a momentum of its own. For example, the most widely known approach to performance measurement, the Balanced Scorecard is now widely used as a strategy development and execution tool but was developed in an operational environment and developed by Bob Kaplan, a professor of Accounting.

Following their review of the performance measurement literature Neely et al.\(^4\) defined performance measurement its strictest sense as the process of quantifying the efficiency and effectiveness of action. Neely\(^5\) went on to identify the activities required to measure performance by defining a performance measurement system as consisting of three inter-related elements:

- Individual measures that quantify the efficiency and effectiveness of actions.
- A set of measures that combine to assess the performance of an organisation as a whole.

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A supporting infrastructure that enables data to be acquired, collated, sorted, analysed, interpreted and disseminated.

Importantly, this identifies that performance is multidimensional (requiring a number of measures to assess) and an infrastructure to measure and manage.

This is one of the most precise and often quoted definitions of performance measurement. Other notable definitions such as those by Ittner, Larcker and Randall, Gates and Otley broaden the scope of performance measurement to include strategy development and the taking of action. Given the often quoted adage that “what gets measured gets done”, implicit in the growing literature on performance measurement is that performance measurement includes development of strategies or objectives, and the taking of actions to improve performance based on the insight provided by the performance measures. This blurs the distinction between performance measurement and performance management. However, the definitions discussed show that performance management is a collection of activities including the setting of objectives or strategies; identification of action plans / decision making; execution of action plans and the assessment of achievement of objectives / strategies. So, although some authors (such as Johnson and Broms) question the value of basing management on performance measures, it is clear that a performance measurement system can form “the information system that is at the heart of the performance management process, and integrates all the relevant information from all the other performance management systems” Bititci et al.

Why manage performance?

A review of the literature identifies a host of reasons for managing performance falling into the following categories:

- **Strategy Formulation**, determining what the objectives of the organisation are and how the organisation plans to achieve them.

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- **Manage the strategy implementation process**, by examining whether an intended strategy is being put into practice as planned.
- **Challenge assumptions**, by focusing not only on the implementation of an intended strategy but also on making sure that its content is still valid.
- **Check position**, by looking at whether the expected performance results are being achieved.
- **Comply with the non-negotiable parameters**, by making sure that the organisation is achieving the minimum standards needed, if it is to survive (e.g. legal requirements, environmental parameters, etc.).
- **Communicate direction** to the rest of the employees, by passing on information about what are the strategic goals individuals are expected to achieve.
- **Communication with external stakeholders**
- **Provide feedback**, by reporting to employees how they are, their group and the organisation as a whole is performing against the expected goals.
- **Evaluate and reward behaviour**, in order to focus employees’ attention on strategic priorities; and to motivate them to take actions and make decisions, which are consistent with organisational goals.
- **Benchmark** the performance of different organisations, plants, departments, teams and individuals.
- Inform managerial *decision-making* processes.
- Encourage *improvement and learning*.

These SPM systems’ roles can be classified into three main categories:

- **Strategic**: comprise the roles of managing strategy implementation and challenging assumptions.
- **Communication**: comprises the role of checking position, complying with the non-negotiable parameters, communicating direction, providing feedback and benchmarking.
- **Motivational**: comprises the role of evaluating and rewarding behaviour, and encouraging improvement and learning.
Of these, the one that differentiates a strategic performance management (SPM) system from a more traditional management control system (e.g. an accounting system) is the strategic focus (Sprinkle, 2003). Furthermore, when performance management is used for making sure the strategy is being implemented as well as for questioning the validity of the strategy, it can be argued that this system is similar to what authors in the strategy literature refer to as “strategic control system”.

Previous research has suggested that how an SPM system is used influences business outcomes (Blenkinsop and Burns, 1992; Martins and Salerno, 1999). Simons (1990, 1994, 1995) argues that management control systems used interactively can guide organisational learning, influence the process of strategic control and therefore influence business results. “A management control system is categorised as interactive

12 e.g. Asch, 1992; Eden and Ackermann, 1993; Hrebinak and Joyce, 1986; Muralidharan, 1997, 1999; Neely, 1998; Preble, 1992; Roush and Ball, 1980; Schreyogg and Steinmann, 1987

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when top managers use it to personally and regularly involve themselves in the decisions of subordinates. When systems are used for this purpose, four conditions are typically present: Information generated by the management control system is an important and recurring agenda addressed by the highest levels of management; the process demands frequent and regular attention from operating managers at all levels of the organisation; data is interpreted and discussed in face-to-face meetings of superiors, subordinates, and peers; the process relies on the continual challenge and debate of underlying data, assumptions and action plans” (Simons, 1991).

A performance management system is meant to be interactive (Neely, 1998; Kaplan and Norton, 2001) since its main roles are to facilitate the implementation of the business strategy and to question strategic assumptions. Given the multitude of measures, managers who try to use the balance scorecard, as an interactive system will be overloaded. Consequently, they won’t be able to interactively use the system (Weber and Schaeffer, 2000). However, this argument can be weakened by the findings of Lipe and Salterio’s (2000, 2002) studies. These two researchers have found that the use of the scorecard framework helps managers’ judgement, it improves their focus on what is important; and it does not create information overload. Further, Nilsson and Kald’s (2002) survey of Nordic firms has found that SPM systems are used both diagnostically and interactively.

Apart from the strategic purpose of the SPM system, its motivational purpose has also been stressed as a critical factor for its effectiveness. A SPM system is used as a motivational device when it is integrated with the compensation system. Traditionally, evaluation and reward programs have been linked exclusively to company financial measures. But more companies are now using SPM frameworks to calculate their rewards. A consultant’s study has shown that 88 percent (out of 214) of large and mid-sized firms in the US find the balanced scorecard approach as an effective method to determine pay (Mercer, William M. & Co., 1999).

The use of performance measures in a compensation system or performance appraisals process is not a new topic in the management control or human resources literature. Previous academic research on this topic has been mainly concerned with the use of accounting measures in incentive schemes or in performance evaluation processes. From the mid 90s, researchers started to focus on the use of non-financial measures in annual incentive schemes (e.g. Ittner et al. 1997a; 2002) or on the performance and behavioural effects of incorporating non-financial measures in incentive contracts. However, none of these researchers explicitly state that the type of financial and non-financial performance measures they investigate are the ones included in the companies’ SPM system.

Few studies have exclusively focused on the behavioural and performance effects of using the measures included in a company SPM system for reward and evaluation purposes. Moreover, an aggregated analysis of the findings extracted from those studies shows some contradictory results. For instance, two practitioners’ surveys, one carried out by Gates (1999) and another one by Maisel (2001); and several case studies presented by Kaplan and Norton in their 2001 balanced scorecard book (e.g. Mobil North America Marketing and Refining, Texaco Refinery and Marketing) have shown positive behavioural and business effects of the use of SPM systems to determine pay.

13 e.g. Eccles, 1991; Kaplan and Norton, 1992, 1996b, 2001; Otley, 1999
14 e.g. Boudreau and Berman, 1991; Coates et al., 1995; Chenhall, 1997; Datar et al. 2001; Williams et al, 1985
15 e.g. Banker et al, 2000; Scott and Tiessen, 1999; Smith, 2002

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Further an experiment developed by Swain et al. (2002) suggest that the perceived linkage between BSC metrics and divisional strategy has a significant and positive effect on the use of these metrics in individual’s performance evaluation processes.

However, research developed by Ittner et al. (2003a) or Ho and McKay (2002) have revealed that the use of scorecard measures in compensation might produce dysfunctional behaviours that can diminish the value of the SPM system itself and of companies’ business performance in the long run. In Ittner’s et al. (2003a) research, the use of the Balanced Scorecard for determining pay in the studied company increased the level of subjectivity in the reward system. Specifically these researchers found that the subjectivity of the system allowed superiors: to reduce the “balance” in bonus awards by placing most of the weight on financial measures; to incorporate factors other than the scorecard measures in performance evaluations; to change evaluation criteria from quarter to quarter; to ignore measures that were predictive of future financial performance; and to weight measures that were not predictive of desired results. These outcomes led many branch managers to complain about favouritism in bonus awards and uncertainty in the criteria being used to determine rewards, and caused corporate executive and human resource managers to question the scorecard’s use for compensation purposes.

In Ho and McKay’s (2002) study, the company investigated decided to develop a Balanced Scorecard, primarily, for compensation purposes. This clear purpose was not made explicit a priori, and inconsistent messages were continuously sent to employees. As a result, resistance to the new system was high and the management team failed to implement the system.

In order to examine the way in which performance is managed two interrelated issues are discussed (i) what should be managed? (how are objectives and strategies identified, what should we be aiming to do?) and (ii) how should performance be managed ? (how do we execute these plans and ensure that objectives are achieved?)

What should be managed?

The problem of how organisations should assess their performance has been challenging management commentators and practitioners for many years. Financial measures have long been used to evaluate performance of commercial organisations. By the early 1980’s however there was a growing realisation that, given the increased complexity of organisations and the markets in which they compete, it was no longer appropriate to use financial measures as the sole criteria for assessing success.

Following their review of the evolution of management accounting systems, Thomas Johnson and Robert Kaplan highlighted many of the deficiencies in the way in which management accounting information is used to manage organisations (Johnson16; Kaplan17; Johnson and Kaplan18). They highlighted the failure of financial performance measures to reflect changes in the competitive circumstances and strategies of modern

organisations. Whilst profit remains the overriding goal, it is considered an insufficient performance measure, as measures should reflect what organisations have to manage in order to profit (Bruns, 1998). Cost focused measurement systems provide a historical view, giving little indication of future performance and encouraging short termism (Bruns, 1998).

The shortcomings of traditional measurement systems have triggered a revolution in the field of performance management (Eccles 20; Neely 21). Attention in practitioner, consultancy and academic communities has turned to how organisations can replace their existing, traditionally cost based, measurement and management systems with ones that reflect their current objectives and environment. Many authors have focused attention on how organisations can design more appropriate measurement and management systems. Based on literature, consultancy experience and action research, numerous processes have been developed that organisations can follow in order to design and implement performance measurement systems. The objective of such frameworks is to help organisations define performance in a way that reflects their objectives and assesses their performance appropriately.

The performance frameworks identified display a number of key characteristics that help an organisation to identify an appropriate set of criteria against which to assess and manage their performance:

- The work of Kaplan and Norton (1992); and Keegan et al. (1989) emphasises the fact that the set of measures used by an organisation has to provide a "balanced" picture of the business. The set of measures should reflect financial and non-financial measures; internal and external measures; and efficiency and effectiveness measures.
- The populated framework of measures should provide a succinct overview of the organisation's performance. For example, the simplicity and intuitive logic of the Balanced Scorecard has been a major contributor to its widespread adoption as it is easily understood by users and applied to their organisation.

19 The key concerns include the fact that traditional financial performance measures are historical in nature; provide little indication of future performance; encourage short-termism; lack strategic focus; encourage local optimisation; encourage a focus on the minimisation of variance rather than continuous improvement and are too internally focussed (Banks and Wheelwright, 1979; Camp, 1989; Dixon et al, 1990; Goldratt and Cox, 1986; Hall, 1983; Hayes and Abernathy, 1980; Schmenner, 1988; Skinner, 1974; Turney and Andersen, 1989)
23 such as the Balanced Scorecard (Kaplan and Norton, 1992), the Performance Prism (Kennerley and Neely, 2000), the Performance Measurement Matrix (Keegan et al., 1989), the results and determinants framework (Fitzgerald et al., 1991), the SMART pyramid (Lynch and Cross, 1991), The Business Excellence model (Baldrige, 2002; EFQM, 2001)
- Each framework demonstrates the need for organisations to implement a set of performance measures that is multi dimensional. This reflects the need to measure all the areas of performance that are important to the organisation’s success. However there is no consensus over what the dimensions of performance are. The EFQM model provides the broadest indication of dimensions of performance to be measured.

- The Performance Measurement Matrix (PMM) provides comprehensiveness. It is possible to map all possible measures of an organisation’s performance onto the framework and identify where there are omissions or where there is a need for greater focus. However, the PMM provides little indication of the different dimensions of performance that should be measured.

- The Tableau de Bord, along with the work of Bititci et al. (1998), explicitly demonstrates the fact that performance measures should be integrated both across the organisation's functions and through its hierarchy, encouraging congruence of goals and actions.

- The Tableau de Bord and the work of Fitzgerld et al. (1991) explicitly, and the Balanced Scorecard and Performance Pyramid implicitly, explain how results are a function of determinates. This demonstrates the need to measure results and drivers of them so that the performance measurement system can provide data for monitoring past performance and planning future performance. This demonstrates the way in which measures contribute to an organisation’s planning (feed forward) and control (feedback) system (Ballantine and Brignall, 1994).

**Evolution of the Scorecard Concept**

By far the most well known and accepted approach to organisational performance management is the Balanced Scorecard. Some writers have suggested that 60 percent of Fortune 1000 companies have experimented with the BSC (Silk, and the latest data, from the Gartner Group, suggest that over 50% of large US firms had adopted the BSC by the end of 2000). Data collected by the Balanced Scorecard Collaborative suggest that of the firms not currently using the Balanced Scorecard, 43% are planning to use one soon. In a survey of management techniques and tool in 15 countries in North America, Europe, Asia, and South America Rigby (2001) finds that about 44% of organisations in North America utilise the BSC. Although when first introduced in 1992 it was promoted as a performance measurement system, the Balanced Scorecard has evolved somewhat. That evolution highlights some important issues regarding the management of organisational performance.

Originally the Balanced Scorecard prompted users to identify an equal number of measures in each of four perspectives: Financial perspective; Customer perspective; Internal perspective; Innovation and Learning perspective. This demonstrated the need to balance financial and non-financial measures; internal and external measures; leading and lagging measures; and short and long-term measures. The approach encouraged managers to overcome the shortcomings of traditional financial

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measurement and ensuring that managers don’t take a narrow view of performance based on too few measures. Balanced scorecard has become common terminology among executives, however since its introduction the concept has evolved. With each of Kaplan and Norton’s books on the subject (in 1996, 2000 and 2004), less emphasis has been placed on the exact balance of measures and more on the need to explicitly link desired performance outcomes to the drivers that enable achievement of those outcomes. This change in emphasis is reflected by Cobbold and Lawrie29 and Speckbacher et al.30 who both identify 3 different types of Balanced Scorecard. This can cause some confusion, particularly as this evolution has also seen emphasis of the Balanced Scorecard change from performance measurement to strategy development and strategic control (a broader performance management view). Having balance in the number of measures is no longer considered strictly necessary. In fact Art Schneiderman, who developed the first scorecard, which Kaplan and Norton found in Analog Devices, argues that balance is actually harmful and that ‘good scorecards will be unbalanced; containing mostly non-financial, internal, leading, short-term measures’. As long as we understand how they contribute to the ultimate objective we will not be taking our eye off the ball. Kaplan and Norton propose the use of strategy maps (sometimes referred to as success maps) to understand how the drivers of performance affect the top level objectives. Strategy or success maps explicitly link performance outcomes to the drivers of those outcomes. Figure 1 is an example of a success map which explicitly shows how non-financial, internal, leading, short-term measures such as Employee Development or Employee Satisfaction affect financial, external, lagging, long-term measures such as Return on Capital Employed or Profit Growth. The success or strategy map provides a model of the performance of the organisation which tells the story of the organisation’s strategy that can be presented on a single piece of paper. When Schneiderman talks about a ‘good scorecard’ it is a strategy or success map to which he refers regardless of whether the Balanced Scorecard (using its 4 perspectives), the Performance Prism or any other measurement framework has been used to develop it.

Designing performance measurement systems is all about deciding which measures to select, and just as importantly, which measures to ignore. The principle behind the Balanced Scorecard and Performance Prism is that the number of measures should be limited to give clarity to what the organisation is trying to achieve. Therefore


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developing the right performance measures is all about selecting the key objectives that the organisation needs to improve and designing appropriate measures to track this improvement.

When management teams do this together it clarifies their thinking on what is important. Having a debate refines their views and makes explicit the mental models each holds in their heads about how they believe the organisation works. Our experience shows that this process in itself is highly beneficial. It can help the top team to clarify and agree strategy even if the measurement process doesn’t progress further.

The success map should show all the key objectives the organisation is trying to achieve over the coming period on a single sheet of paper. They are linked showing the main cause and effect relationships between the objectives. This is an extremely good communication tool both within the management team and for communicating the objectives by demonstrating how the actions of employees throughout the organisation contribute to its overall objectives. A well developed strategy or success map should address the criteria for a performance framework identified by Kennerley and Neely.

Whilst the origin of the Balanced Scorecard concept is as a measurement system, success or strategy maps have always been intended to represent the strategy of an organisation. They explicitly show a vertically and horizontally integrated picture of the objectives of the organisation making clarifying what should be managed to achieve the organisation’s performance objectives.

**Beyond the Balanced Scorecard**

Despite its popularity the Balanced Scorecard is not without its critics, Norreklit32 for example, questions the existence of a causal relationship between the different perspectives of measurement (financial, customer, internal processes, and innovation and learning); the fact that this system does not address the needs and wants of all the stakeholders of a company; and the lack of theory behind the scorecard concept. Brignal33 makes similar criticisms of the balanced scorecard arguing that the interrelationships among performance variables are not confined to a universally valid one-way linear chain of cause and effect; nor a series of interdependencies. Additionally, he claims that a Balanced Scorecard cannot be balanced and integrated. Rather than that, some managers may rationally de-couple their scorecard in an attempt to maintain balance among stakeholders of unequal power affecting the relationships among balanced scorecard dimensions. Finally, he stresses the fact that social and environmental aspects of organisational performance are a major omission from mainstream performance management models.


It is commonly stated that one of the main benefits of the Balanced Scorecard in particular, is that it translates strategy into action, and that measures should be derived from strategy. This is such a conceptually appealing notion that few people stop to question it. In reality, Neely et al. argue, strategies are reactions to opportunities or threats in the organisation’s operating environment. Understanding the operating environment must, therefore, be the starting point.

According to Teddy Wivel, senior partner in the Danish arm of Ernst and Young “It will not be possible to create shareholder value without creating stakeholder value”35. Since Freeman’s (1984) work there has been considerable attention paid to the stakeholder approach to management of organisations. In the Tomorrow’s Company report, the RSA suggested that competitive success in the future will increasingly depend on taking an inclusive approach to management, reflecting the need for consideration of the requirements of all stakeholders to be central to performance measurement and management activities (RSA, 1995). Authors such as Freeman, Alkhafaji and Nasi highlight that “the stakeholder concept is probably he most consistent with the environment that organisations face on a regular and contemporary basis”39. Hence taking a stakeholder approach is most appropriate if organisations are to identify objectives and manage performance which is consistent with the environment in which they operate. Furthermore a stakeholder approach enables alignment of traditional organisational strategies with social and ethical issues which are at the heart of the growing Corporate Social Responsibility movement40.

Knowledge of stakeholders’ changing wants and needs and how well the organisation is satisfying them is both the output of prior strategies and the basis of new strategies. The starting point for deciding what to manage shouldn't be "What is the organisation's strategy?" but instead, "Who are the organisation’s key stakeholders and what do they want and need?" Therefore, stakeholder satisfaction is the first viewpoint on performance encapsulated in the Performance Prism a stakeholder focused approach to developing an organisations performance measures and success map. Furthermore, an organisations strategies, processes and capabilities have to be aligned and integrated with one another if the organisation is to be best positioned to deliver real value to all of its stakeholders. In addition, organisations and their stakeholders have to recognise that their relationships are reciprocal.

The Performance Prism approach helps build a stakeholder focused measurement and management system by answering a number of key questions:

- Stakeholder satisfaction. Who are our key stakeholders and what do they want and need?
- Stakeholder contribution. What do we want and need from our stakeholders on a reciprocal basis?
- Strategies. What strategies do we need to put in place to satisfy these twin sets of wants and needs?
- Processes. What processes do we need to put in place to enable us to execute our strategies?
- Capabilities. What capabilities do we need to put in place to operate and improve these processes? It should be noted that the Performance Prism is not a prescriptive measurement framework. Instead, the Performance Prism is a tool which can be used by management teams to influence their thinking about what the key questions are that they want to address when seeking to design their performance measures and measurement systems, and so manage their business. This approach is argued, would satisfy both the resource-based theory of the firm (i.e. what resources form the firm) and the resource dependency view (i.e. what resources are critical to obtain). By using this approach organisations can explicitly link the processes that they undertake to the wants and needs of their stakeholders. At this level it is possible to make decision about priorities and objectives for individual activities and processes, and understand how actions at that level will affect stakeholders and their satisfaction. As management systems are designed to support the achievement of the organisation’s strategy it is important that when the organisation’s strategy changes so do the measures used to assess whether it is being executed. So regardless of the framework used to develop the original measures, over time these should change to reflect the organisation’s changing circumstances and hence a measurement and management system should always be bespoke to reflect the strategy being pursued. The performance measurement revolution has prompted many organisations to implement new performance measurement and management systems, often at considerable expense. However, unlike the environment in which organisations operate, many such initiatives appear to be static. Senge (1992) argues that, in today's complex business world, organisations must be able to learn how to cope with continuous change in order to be successful. Goold and Quinn41 “in business that face rapidly changing environment, or in which strategy needs to change frequently and opportunistically, fixed strategy goals may be dysfunctional (they might conflict with a skilful manager’s powers of intuition and judgement).” Further, Meyer and Gupta42 argue that a number of factors, especially the tendency of performance measures to run down or to lose the capacity to discriminate good from bad performance, trigger

ongoing creation of new performance measures different from and therefore weakly correlated with existing measures. The consequence is a paradox of performance where organisational control is maintained by not knowing exactly what performance is. Eccles (1991) suggests that it will become increasingly necessary for all major businesses to evaluate and modify their performance measures and hence performance management in order to adapt to the rapidly changing and highly competitive business environment. Numerous authors espouse the need for reflection on what is being managed to ensure that they are updated to reflect this continuous change (Meyer and Gupta, 1994; Ghalayini and Noble, 1996; Dixon at al., 1990; Wisner and Fawcett, 1991). However, there has been little evidence of the extent or effectiveness with which this takes place. Moreover, the literature suggests that ineffective management of the evolution of measurement systems is causing a new measurement "crisis". With organisations implementing new performance measures to reflect new priorities but failing to discard measures reflecting old priorities resulting in uncorrelated and inconsistent measures and hence the loss of focus of performance management (Meyer & Gupta, 1994). Kennerley and Neely go on to identify the capabilities necessary to maintain a dynamic measurement system which changes to reflect the organisation’s circumstances. These capabilities fall under the categories of Process, People, Culture and Systems.

**How should performance be managed?**

Identifying the right objectives and hence the right things to manage is all well and good, but without an effective decision making and action planning process it is a waste of effort. Furthermore research by Ernst and Young on the ‘Measures that Matter’ found that investors find strategy execution the most important factor when valuating companies, more important than the quality of the strategy being implemented. Despite this, relatively little attention is dedicated to the integration of planning (what should be managed) and execution (how should it be managed).

**Processes and Systems for Managing Performance**

It is common to see performance reports used by Executives which consist of tables of data or limited visualisations of data which provide little insight into the actual performance situation or action that is required to improve.

In the field of quality management, the Demming Cycle (sometimes known as the Shewhart or PDCA Cycle) is a well established improvement methodology which


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incorporates four stages Plan, Do, Check, Act. Primarily the Demming cycle is applied to individual processes however its constituent phases lie at the heart of performance management as they integrate planning, action and monitoring of performance to ensure continuous improvement and the achievement of objectives. Furthermore the Demming Cycle is all about learning – learning in a systematic way what works and what does not

Extension of the Demming cycle principles to organisational level performance management can bring problems be problematic. It has become increasingly difficult to convert the large amounts of data available into meaningful information. Managers today complain of “drowning in data while thirsting for information”45. Organisations seem to be generating data at a much faster rate than any manager can master, and in parallel to that, the useful life of that data is collapsing. “One of the most enduring traits of the information age is that we have focused too much on mastering transaction data and not enough on turning it into information and knowledge that can lead to business results”46.

The problem has never been lack of useful tools or proven techniques. Most tools for data analysis, interpretation, and visualisation have been around for many years. Various disciplines have provided numerous ways to extract value form data like Industrial Engineering developments, Quality Management tools, Information Visualisation techniques, among others. Neither was the problem any lack of capable IT or business systems to deploy these tools. In the year 2000, World Research Inc.47 estimated that the “business intelligence and data warehousing” tools and services market was growing at an average of more than 50% and was estimated to reach $113 billion by 2002.

If the skills and knowledge of executives is to be fully exploited then the performance review process should focus their attention on discussing the issues raised by the performance measures and the actions necessary to meet organisational objectives, rather than trying to interpret what the measures actually say. To address this authors such as Newman 48, Rasiel and Friga49 and Kennerley and Bourne50 propose approaches which extend concepts in the Demming cycle process so that it integrate performance measurement into the broader performance management activities by ensuring there is a systematic approach to identifying objectives; collecting, analysing and interpreting data; communicating insights; making decisions; and monitoring performance to ensure that objectives are achieved. Furthermore, Marchand et al51 highlight the need to integrate IT, people and practices to deliver insights and business

47 World research Inc. (1999) Business Intelligence and Data Warehousing (BI/DW) Programme Competitive Analysis. California, USA
results. This can be achieved by focusing on reporting insights to executives rather than performance data in practice this means:
- Restructuring meetings based on the objectives of the organisation.
- Focusing the agenda on the key performance outcomes represented on the organisation’s strategy map. The agenda should be a series of key questions for each of the key objectives i.e. ‘Is the objective being achieved?’ and ‘If not why not?’
- Analysis and interpretation of data should be dealt with by specialists in these tasks (the role of ‘Performance Analysts’) who identify what insights performance data provides.
- Performance analysts should be responsible for analysing performance measurement data presenting to executives the answers to the questions (backed up by analysed data) rather than providing the raw data itself. Analysis includes identification of the root causes of performance issues and analysts are encouraged to propose possible future actions based on their analysis. This enables the executives to focus their attention on discussing the issues raised and the actions necessary to meet organisational objectives.
- Communities of Practice to enable analysts to learn from each other, enabling improvement of analysis skills. They allow learning about best ways of communicating to the key decision makers, visualisation of messages and telling the story of the organisation’s performance.
- Meetings should change from discussing performance data to identifying and agreeing future actions. Because this is a more effective use of time, board meetings can be more efficient. They should be supported by an issues management process that ensures actions are prioritised based on importance and that actions are completed as and when necessary.

Following these steps moves the focus performance management from review of past performance to the discussion of how strategy is executed to deliver future performance objectives. This focuses executive attention on the issues facing the organisation in the future and the achievement of strategic objectives.

A systematic process for using performance measurement to check whether strategy is being implemented and whether performance is improving in line with strategic objectives as described represent a process of single-loop strategic learning. Target setting and milestone setting have also been stressed as a critical for the effectiveness of performance management and management. Guidelines regarding the identification and selection of these elements seem to be insufficient in the SPM literature. Kaplan and Norton (1996), for example, only recommend the use of ‘stretch targets’. Ahn (2001) proposes that the interdependencies between the measures should be taken into account when quantifying the values of the targets to be attained each year. There is little evidence in relation to the use of targets across broad

multidimensional perspectives of performance. Johnston et al. have found that most continuous improvement targets are based on past performance; and that usually, targets are imposed by managers without consultation, with rewards linked to the achievement of those targets. This practice increases the level of resistance to targets and deteriorates the value of the SPM system. In the management control literature, a few more studies can be found regarding the target-setting process within accounting systems (e.g. Merchant and Manzoni, 1989).

Using measurement to challenge strategy - double loop learning

In addition it is possible to use performance management to challenge whether the followed being applied is appropriate. Organisations such as Sears, and the anonymous company in the study by the Institute of Employment Studies have used statistical analysis of performance measurement data to challenge whether the strategy being followed is leading to the desired outcomes. This enables double-loop strategic learning to be applied by challenging the assumptions that underpin the strategy of the organisation. The Strategy Map forms a hypothesis of the drivers of performance. Gathering and analysing performance measurement data to enables testing of this hypothesis, enabling executives to make informed decisions about whether the assumptions underpinning the strategy are valid and whether the strategy needs to be changed.

Integration within the SPM system and with other management control mechanisms

If an organisation is to comprehensively manage performance on an organisation wide basis then the management system bust be integrated with other management control systems. Normally such systems refer to budgeting processes or compensation schemes. Little academic research exists on how to connect strategic performance management systems to accounting or to compensation systems. Only a few authors have started to investigate the integration of scorecard measures in compensation practices. For instance, a study conducted by a Hay Group’s consultant, Manas (1999), has found that the linkage between SPM systems and compensation practices vary significantly from company to company. Out of fifteen companies studied, thirteen had used their scorecard for determining base pay. Six of them had linked the scorecard to annual incentives only; three to annual and long-term incentives; one to long-term incentives only; one to base pay and annual incentive; and two to base pay, annual and long-term incentives. None of them had linked the scorecard to base pay only or to base pay and long-term incentives.

58 Barber, L, Hayday, S. and Bevan, S., From People to Profits, Institute of Employment Studies Report 355, 1999

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Making it Work - Overcoming the Barriers to Performance Management

Implementation factors

Authors highlight the importance of approaching the implementation of performance management from a change management perspective (e.g. Bourne et al, 2002; Kaplan and Norton, 2001; Kasurinen, 2002; McCunn, 1998). In this sense, factors such as the following are crucial for an effective SPM implementation.

Top manager agreement, commitment and leadership - start with a clear agreement at the top on the strategy, goals, measures and the performance targets to be implemented.

Managers’ participation and accountability - having the agreement, commitment and leadership at the top is insufficient if it does not go along with having the agreement, commitment and leadership of the rest of the management team. Furthermore, the involvement of employees is also crucial. Inviting managers and employees to assist on the development of the system facilitates their buy-in, and enhances their trust, understanding, and ownership of the performance measures. It is also important to involve the Human Resources and the Information System functions. It is essential that managers become accountable for the performance being managed.

Training and education - employees at all levels need to learn the principles of the system, its measures, tools and procedures (Frigo and Krumwiede, 1999; Maisel, 2001; Kaplan and Norton, 2001). Individuals can distort the information system by smoothing, biasing, focusing, gaming, filtering, ”illegal” acts so it is important to train and educate individuals on how to engage rather than bypass the causes of dysfunctional behaviours.

Communication and feedback - The factor “communication” is one of the most cited in the literature. When most authors stress its importance, they tend to focus on the reported feedback of measurement results to the employees (e.g. Forza and Salvador, 2000, 2001; Howell and Soucy, 1988; Keasy et al., 2000). Even so, there are other aspects related to communication that can affect the effectiveness of performance management. The change management literature highlights the relevance of verbal and non-verbal communication (e.g. presentations, manuals, conversations, newsletters, reports, etc.) used to clarify all aspects related to the measures, in particular and performance management in general; and to facilitate the buy-in from the people in the organisation (Bourne et al. 2002b; Kaplan and Norton, 2001; Quinn, 1996; Schreuder, 1995).

SPM system information infrastructure - an information system should be designed for collecting, analysing and reporting the data efficiently. If data is flawed, the data integration process is flawed, or its communication is flawed, then decisions based on that data are more likely to be flawed. Using an IT system to support these tasks seems to be critical. However, some caution is needed in relation to the use of IT since the capabilities of technology, in terms of data capture and manipulation, provide a great temptation for senior management to introduce new measures (Wilson, 2000).

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Another key issue about the design of an information infrastructure is mentioned by Mintzberg60: “the manager must be viewed not as a reflective planner but as an adaptive information manipulator who seeks for trigger, speculative, current information. The manager, not the computer, is the real data bank of organisational information, even though he is a potential obstruction of the flow of information”. With this statement, Mintzberg recalls that information systems are normally designed by the specialists of the organisation for the specialists of the organisation, and therefore fail to serve managers’ needs.

**Ongoing Performance Management**

Following a review of literature, Franco and Bourne61 identify the most significant factors affecting the use of performance management. These factors are heavily influenced by the change management literature reflecting the need not only to manage the implementation of a performance management system but also the ongoing change that results from the review and management of performance.

(1) **Corporate culture** - some studies highlight the need for a corporate culture that encourages team working, ownership of problems and risk-taking or entrepreneurship, while others emphasise the need for a corporate culture orientated to continuous improvement and use of the SPM system.

(2) **Alignment** - the integration and linkage of individual strategies and goals, and the ‘good match’ between managers’ responsibilities and the performance being managed.

(3) **Review and update** - a continuous review of the strategy, the performance being managed and systems and processes being used to manage. The focus of performance management should be to drive action for improvement and learning rather than control. There should also be focus on the development of action plans in order to explain how the gaps between performance measures and goals could be closed, and review their progress periodically.

(4) **Communication and reporting** - of performance and progress. There is emphasis on the need for prompt and formal feedback.

(5) **Involvement of employees**. There is consensus around the benefits of making everyone participate in the development of measures. Involvement in the selection and definition of measures can reduce employees and managers’ resistance to performance management, and increase their usage level of performance measures.

(6) **Management understanding**.

(7) **Compensation link** - there is inconsistency in the literature regarding the linkage between incentive compensation and strategic performance measures. In addition, a lack of understanding around the concept of compensation seems to exist, since studies use the words ‘incentives’, ‘rewards’ and ‘compensation’ interchangeably.


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(8) **Management leadership and commitment** - executive support, leadership and commitment. Management should have clear accountability and responsibility of measures and results.

(9) **Clear and balanced framework** - as already discussed

(10) **Agreement on strategy and success map**.

(11) **Data processes and IT support**.

Performance is an outcome of both organisational and human activities, positive performance outcomes only arise when the behaviour of employees is aligned with strategy and when employees are motivated. As a result it is crucial that performance management activities integrate culture, process, procedures and the management of people to generate learning and continually improve.


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Public Sector Performance and the Modernisation Agenda

In many advanced economies, such as those of the Anglo-Saxon countries and Scandinavia, public services have come under increasing pressure to improve their efficiency and effectiveness, reduce their demands on taxpayers, but maintain the volume and quality of services supplied to the public. So significant has been the modernisation agenda in the Public Sector, that the phrases the “new public sector” or “New Public Management” (NPM) have been coined to describe them. In the drive to achieve this, public service organisations have been subjected to the introduction of various ‘private sector’ management techniques, frequently complemented by the adoption of some form of neo-market system in which the purchasers and providers of public services are split and required to contract with each other (Brignall and Modell, 2000).

Performance management, through the use of performance targets and league tables, has been one of the main tools used by the UK Government in its attempt to push through its modernisation programme and demonstrate that value for taxpayers money is being delivered.

Despite Government intentions, media attention has focused on examples of performance targets, and pressure to achieve them, driving inappropriate behaviour. The case of Bristol Eye hospital cancelling follow-up appointments in order to meet waiting time targets lead to press headlines such as "Patients Blinded by NHS Targets". This is just one of many examples which highlight the problems that performance targets are causing. With examples such as this, and with a 20 per cent funding increase in the past two years having produced just 4 per cent more output66, Public Sector workers, politicians and commentators doubt the value of using performance targets with broader questions raised about the applicability of private sector approaches to public sector organisations. Furthermore there is some case study evidence that to suggest that private sector approaches are not bringing productivity improvements67.

From Canadian experiences, Brown suggests that there are two main factors limiting the application of performance management approaches in the public sector: Unionisation limiting the ability to change working practices and the difficulty of measuring performance outcomes68. Symon provides anecdotal support for the general resistance to change in the public sector with preference for doing things as they have always been done69.

However there is also research that opposes this view, suggesting that it is possible to apply private sector approaches in general and performance management in particular

69 Symon, K. “Public Sector’s Performance must be grounded in reality”, Sunday Herald, 14 March 2004, p11

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in the public sector. Jackson (1995) acknowledges that the differences between public sector and private sector management are frequently emphasised but goes on to argue that in both sectors the fundamental objective is to create or add value. This value is defined in terms of the needs and requirements of the stakeholders in the organisation. Both public and private sector organisations have to manage and balance the needs of the various stakeholders to deliver the highest level of value. Although the stakeholders are different both public and private sector organisations need to manage this balance. Jackson recognises that value for money indicators tend to focus narrowly on economy and efficiency rather than focusing on the satisfaction of the broader range of stakeholders70.

Euske further discusses the differences between management of public, private and voluntary sector organisations. Which he recognises that the contexts are different, he argues that these differences are often used to reject possible solutions, and that claiming that organisations are unique limits possible solutions acting as a barrier to possible change71.

In July 2003 a report by the Commons Public Administration Committee went further and argued that if used appropriately measurement can play a "vital part" in improvement efforts. Whilst research in South America suggests that an effective planning oriented approach to performance evaluation can effectively enhance democratic accountability, supporting the thesis that democratic accountability and public administration modernisation can be done together if performance management is done effectively72.

Following their extensive review of Performance Monitoring practice in the public sector the Royal Statistical Society Working Party on Performance Monitoring in the Public Services, suggest that Performance monitoring done well is broadly productive for those concerned. Done badly, it can be very costly and not merely ineffective but harmful and indeed destructive73. Furthermore they identify various ways in which performance monitoring (and by implication performance management) should be improved in the public sector. In relative terms Performance management in the public sector is still in its infancy74. The 1980s and 90s saw enormous interest in the subject with many leading companies redesigning their performance measurement and management systems to reflect their changing circumstances. This has resulted in over a decade of experience and research

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that has provided insight into the ways in which performance measurement and management can be used most effectively. Whilst by no means all of the practice in the Private Sector can be described as good and differences in context must always be considered, it would appear that there are lessons from the experience and research in the Private Sector that could assist the Public Sector overcome some of the performance management problems that are being experienced.

**Measurement for solely external reporting**

One of the key messages from the performance measurement revolution in the private sector has been the need to measure performance which reflects the organisation’s improvement priorities not just to report externally. In the private sector this meant not only collecting the financial data required for the financial accounts but also the non-financial drivers of that performance. In the Public Sector this would suggest setting targets that are relevant to the individual NHS Trust or Local Authority, not just measure the targets that the government requires.

Given the well accepted adage "what measures gets done" or more pertinently for the Public Sector "what gets targeted and rewarded gets done", performance measures need to reflect the objectives of the organisation and should also reflect current performance priorities. i.e. measures should move from compliance with external standards towards checking whether an organisation is achieving its objectives and improving in areas of poor performance.

Furthermore, Alcock found that problems arise when there is over centralisation of targets etc as they can often contradict with the priorities of local service delivery. And if measurement and targets are imposed from above there is no ownership and hence reduced commitment to achievement of targets. Without integration of measurement with the management of people to change behaviour, measurement is an activity that adds no value.

Having performance management system that identifies, and prioritises the needs and expectations of all stakeholders is key to better performance. The needs of stakeholders in an organisation need to be converted into action plans and integrated into the people and processes to ensure that these delivered.

In the Public Sector there are examples of organisations such as the London Borough of Barking and Dagenham and others which have implemented a system that focuses attention areas of local public service requiring specific performance improvement given their circumstances. Defining performance in terms of the requirements of the


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broad range of stakeholders in the organisation (including central government policy as one) has helped target attention on the services that their residents value.

**Measures as an end rather than a means to an end**

Related to the previous point is the need to focus attention on the ultimate objective of the organisation. With the emphasis placed of the specific targets prescribed by central government attention will be paid to achieving these targets. Whilst the targets are surrogates for the ultimate objective, it is unlikely that any set of measures will ever fully encapsulate the entire set of objective, especially when the desired outcomes are intangible in nature. As a result the performance targets should not be seen as an end in themselves but as a means to an end. For example the ultimate objective of the NHS is to improve patient care. Reducing waiting lists is just one of the dimensions that contribute to this objective. There is a constant need to reflect on and review performance measures and targets that are used to check whether they are leading to the achievement of the ultimate objective and whether they are focusing attention on the right areas of performance. If not the measures, targets and management attention need to be adjusted appropriately. The most effective measurement systems are those that are able to change to reflect the organisation's changing circumstances. Tools such as Strategy of Success Maps have successfully been used to explicitly link top level objective to the drives of performance, demonstrating how individual performance targets and employee actions contribute to the achievement of organisational objectives.

**Too many measures / targets**

A common complaint in Public Sector organisations in that there are too many targets. The real problem that this causes is it makes it impossible to understand what the priorities are and where attention should be focused. Many Private Sector companies have used tools such as success or strategy maps to help clarify the prioritisation of performance targets. Such maps make explicit the relationships between performance measures or targets so that it is clear how they combine to affect the overall objective. Furthermore priorities can be changed within a framework which provides an explicit understanding of how different performance targets contribute to the delivery of value to stakeholders.

**Application of inappropriate targets**

Whist the criteria that determine success of an organisation might be similar or the same as a comparable organisation, it is unlikely that their importance or the performance of the organisations will be the same. For example not all public services are going to be equally important to the residents of different Local Authorities, just as the Local Authorities are not likely to be equally capable of delivering them. This suggests that the same target is unlikely to be appropriate for all Local Authorities or all NHS trusts or all schools etc. A target that prompts performance improvement to the desired level in one organisation, might already be achieved by another but unachievable by a third.

Lessons from past experience and research suggest that targets, and hence improvement priorities, should be relevant to the requirements of the organisation’s stakeholders. Furthermore, it is unrealistic to expect achievement of targets that the


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organisation's processes are incapable of. There has been considerable work in the manufacturing field on the concept of process capability and the use of control charts. Increasingly this is also being applied to other organisations processes. By mapping and measuring process performance we can assess the performance that the process is currently capable of. Targets set above a processes capability will not be achievable. If the capability of a process is below an acceptable level of performance additional investment in the resources and capabilities will be required to increase its capability.

In the private sector numerous branch-based organisations have implemented measurement systems with common measures but with targets that are set to reflect local improvement priorities and capabilities.

**Performance culture**

One of the most difficult issues with regard to performance measurement and management is developing a culture that accepts performance measurement as a tool to help the organisation improve. Many areas of the public sector are blessed with people who are committed to improving public service, which is ultimately the objective that the government is trying to achieve through its use of performance targets. Measurement and targets can be a valuable tool to help achieve this objective if workers understand how measures and targets contribute to that objective. However, the effort required to get acceptance of measurement as a tool to help improvement should not be under estimated. It requires considerable communication to highlight how measurement will help rather than hinder performance improvement. Furthermore experience would suggest that considerable leadership is required to demonstrate that measurement is being used to help the organisation and the people within it to learn and to support improvement, not just a way of assigning blame for poor performance.

This discussion demonstrates that there are issues currently facing public sector organisations that are common to organisations in the private sector. It would appear that some of the lessons learnt over the last 20 years in the private sector can be used to inform public sector activities. There are examples of public sector organisations that have successfully taken the appropriate principles and applied them to develop relevant management systems that help them improve performance.

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80 E.g. Lester, T, (2004), “When a bull’s-eye can be a miss: targets and measurements may often reveal only part of the overall story, *Financial Times, (Surveys Edition)*, June 7, 2004,


Conclusions

This report reviews the extensive literature relating to organisational performance management. It is clear from the literature that to be effective performance measurement activities should be designed to (i) manage the right things and (ii) manage them properly. Many tools and frameworks are proposed for each of these attributes of performance management. However there are clear themes which underpin these activities. These can be summarised as:

- Performance management should be integrated horizontally across the organisation;
- The performance being managed should reflect the requirements, wants and needs of all of the key stakeholders of the organisation and not just reflect a limited set;
- Performance management should be integrated vertically linking the strategies and objectives of the organisation to the execution of activities which will enable their achievement;
- Explicit understanding of linkages across the vertical and horizontal integration (e.g. through success maps) enables consideration of conflicting priorities and trade-offs that need to be made in order to achieve overall objectives;
- The performance monitoring, review and action planning process should be structured around the strategic performance objectives of the organisation;
- Processes and systems should be designed to extract and communicate insights rather than performance data;
- All systems and processes should be aligned with each other, driving behaviour towards the performance objectives;
- Effort should be dedicated to developing an appropriate culture to engage the organisation’s employees and elicit commitment to performance objectives.

Whilst many of the tools and frameworks proposed in the field of performance measurement and management have been designed for commercial organisations in the private sector, there is some evidence that some of these generic process focused principles are also applicable in the public and not for profit sectors.


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Management 29 Figure 1: An example of a success map

Supplier Performance
Sales Mix
Initiative Communication
Employee Development
Employee Retention
Process Standards
Product Availability
Cross Functional Cooperation
Customer Loyalty
Operating Efficiency
Profit

Growth
Cash Flow
Sales Growth
Customer Satisfaction
Sales Margin
Return on Capital Employed
Employee Satisfaction Performance Measurement and Management Literature Review
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**Appendix 1 Bibliography**
The bibliography is contained in a separate document.
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