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553 - Implementation of a New Performance Measurement System in a Logistics Service Provider Using the Balanced Scorecard Approach: Banta Global Turnkey
A. Iakovaki
Practical Application

This paper outlines a research study that has been carried out in a multinational logistics service provider, Banta Global Turnkey. It highlights the model and the tools that have been used in order to implement a new performance measurement system based on the balanced scorecard approach. The paper addresses achievements, process issues and lessons learned in the design and implementation phase. It recognizes that achieving a successful performance measurement system can be challenging within a supply chain environment where customers can have different needs and requirements.

556 - Intangible Resources as Performance Drivers in European Hospitals
K. Zigan, F. Macfarlane, T. Desombre
Academic

This research seeks to explore the use of intangible resources in performance management of European hospitals. In this paper, the extent of the awareness of intangible resources as performance drivers is examined in five different European hospitals, from both the private and public sector. The research, which was based on semi-structured interviews, identified the importance of relational capital which supports hospitals in the exchange of not only tangible but also intangible resources.

557 - Quality in the Performing Arts: Evaluation of Performance in Music Theatre
S. Boerner, H. Neuhoff, V. Moser, S. Renz
Academic

This paper aims at investigating the audience's judgement of performance quality in opera. On the basis of Boerner's (2004) componential framework of performance quality in opera, a first version of the "Questionnaire for the Perception of Performance Quality in Music Theatre" is developed. This questionnaire is validated in a pilot study with N = 70 graduate students (study 1). In study 2, the content, the structure, and the agreement in judgements of performance quality in an opera performance are examined (N = 52 students).

559 - Performance Reporting and Disclosure (eg. Operating And Financial Review, Environmental Reporting, Corporate Social Responsibility)
Jane Fiona Cumming
Practical Application

This paper explores the process of identification, measurement and management of intangible risk to the Sponsor of clinical drug trials. Recent high profile events at Northwick Park have highlighted the role of phase one trials in clinical drug development and the risks inherent in innovation where there is no previous experience or that have been tested on animals but have as adverse effect on humans. In this piece of research the particular risk identified lies within not integrating understanding in the informed consent process with volunteers and patients registering for drug trials. The role of measurement and management is critical to embedding the new approach to delivering, measuring and managing the informed consent process into the organisational culture and governance

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<p>561 - Flexing Performance Management Models to be More Acceptable to Healthcare Professionals Sue Jackson Practical Application</p>	<p><i>North Kirklees, situated in the East of England and known to have a 6.8% incidence of Coronary Heart Disease (CHD) embarked upon a Nurse Led CHD Primary Prevention Service in order to improve the health of residents. Keen to utilise the principles of performance management the team applied the RADAR logic of the European Foundation for Quality Management (EFQM) Excellence Model. The article describes an original case study into how the nurses applied the RADAR logic and gives some insight into the experiences of the team during their eighteen-month journey.</i></p>
<p>562 - Organisational Measurement: Exploring and Developing Effective Employee Commitment Measurement Ike-Elechi Ogba Academic</p>	<p><i>This study investigates the effective measurement of commitment within the Nigerian banking sector. A study aimed at filling literature gaps on identified inconsistencies from the use of western scales in measuring commitment in non-western organisations. This research developed 28-item, 7-point Likert scaled questionnaire administered to 200 participants with 42% response rate. Using exploratory factor analysis, the 28 items was reduced to 18 usable items with 3 factor extractions representing 3 components of commitment. Scale reliability was measured with alpha score of .930. The study therefore proved the scale as suitable instrument for commitment measurement, with recommendation for further study given.</i></p>
<p>563 - Goal-Oriented Functional Performance Measures for a Performance Measurement System Robert Tanenhaus Practical Application</p>	<p><i>Goal-oriented functional performance measures can satisfy technical performance measures and can be added to cost and schedule performance measures to complete a set that track the progress of projects and programs. These functional performance measures can help assure that the project or program achieves its goals, not just follows a plan. The measures consist of ten core measures plus other optional measures as needed. An example of an application, the metrics of the measures, and the calculation of a metric are presented, as are displays for reporting the measures and their metric values. The overall cost, schedule, and functional performance measures may be weighted and constructed into single measures of average achievement and achievement efficiency.</i></p>
<p>564 - Measuring Decision-Making in Organizations L. Michel Practical Application</p>	<p><i>The ability to make good decisions is the defining attribute of a high performance organization. The challenge is to ensure that good decision-making practices permeate the entire organization. As organizations grow, employees make decisions in an increasingly complex, ambiguous, and uncertain environment. Strategic management systems enable employees to make decisions that are meaningful to the firm's stakeholders and guide their behaviors to align</i></p>

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	<p><i>with the strategic intent of the firm as well as its values and norms. This paper describes a diagnostic tool which helps companies understand how well their management systems support decision-making and where they should invest to focus leadership time and attention.</i></p>
<p>565 - Benefits of Misalignment Between Strategy and Performance Measurement: Lessons From the Public Sector Panupak Pongatichat, Robert Johnston Academic</p>	<p><i>In the arena of managing the alignment between performance management and an organisation's strategy the authors believe that the private sector has something to learn from the public sector. This paper reports on the results of a four year empirical study into performance management in four central government agencies. The objective of this paper was to identify some of the benefits of misalignment between strategy and performance measurement. Several specific advantages of misalignment were identified including the ability to demonstrate performance regarding other requirements not included in strategic objectives, the ability to improve, and justify, operational activities and the ability to respond better to changes in strategy.</i></p>
<p>567 - The Characteristics of High Performance Organizations André A. De Waal Academic</p>	<p><i>Under the pressure of ever increasing demands of the external environment and stakeholders, organizations are more and more looking for the elements that make up high performance. An analysis of 91 studies into high performance organizations (HPOs) yielded characteristics with regard to the organizational design, structure, processes, technology, leadership, people, culture, and external environment which seem to influence the ability of organizations to achieve high performance. These characteristics were tested by means of a questionnaire, which yielded specific items that show a positive relation with organizational performance. These HPO characteristics guide managers as to which improvement actions they need to take to enable their organizations to achieve superior results.</i></p>
<p>568 - Lessons Learned From the Balanced Scorecard André A. De Waal, Harold Counet Academic</p>	<p><i>This paper describes research which provides insight in the problems encountered during and the lessons learned from performance management system (PMS) implementations and usage. The results show that the failure rate of PMS implementations has decreased in the past years from 70 to 56 percent, and that the most severe problems organizations encounter are: lack of top management commitment; the organization does not have a performance management culture; the PMS has a low priority or its use is abandoned after a change of management; management puts low priority on the PMS implementation; and the organization does not see (enough) benefit from the PMS. Furthermore the research finds that the majority of these severe problems are encountered not when implementing but when using</i></p>

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	<p>the PMS.</p>
<p>569 - An Investigation Into the Use of Managerial Accounting Tools in India Roberta Cable, Claudia Li, Patricia Healy Academic</p>	<p><i>Overall, we found a high use of management accounting tools (MATs) by Indian firms listed on the U. S. over-the-counter market. These firms are larger companies and are influenced by several factors such as national culture and economic development as well as mitigating market forces. Contrary to previous findings, we found that Indian firms had a high use of some contemporary MATs. Our study confirms that market forces are important in influencing the management accounting practices used by firms in India, a developing country.</i></p>
<p>573 - The Application of Modified K-Means Method for Performance Evaluation for R&D Employees Hong Tau Lee, Sheu Hua Chen, Jie Min Lin Academic</p>	<p><i>This paper proposes an approach that can roughly cluster a data set with fuzzy linguistic entries as a prior data arrangement for performance evaluation for R&D employees. We define the absolute difference of fuzzy linguistic variables as their fuzzy distance. Based on this definition, the K-Means approach can be modified slightly for the clustering purpose. For employees are engaged in designing and R&D oriented jobs, their performance is possibly related to some qualitative attributes and the evaluation of such attributes for each employee is linguistic tendency. In the proposed approach, the supervisor can evaluate the performance of each employee with linguistic scale directly. The modified K-Means approach can roughly cluster their performance into different classes for avoiding irreparable bias.</i></p>
<p>574 - Performance Measuring in Regard to the Interdependence of Evaluators and Criteria Sheu Hua Chen, Hong Tau Lee Academic</p>	<p><i>In this research, three groups of evaluator and four criteria are involved in constructing a performance evaluation for R&D employees. The relative weights of these evaluators, criteria, and attributes must be identified before they can be used to the evaluation process. In this research, however, we emphasize the existence of interaction between the intension of selection of evaluators and the perspective of criteria. An ANP approach is applied to handle the interdependence situation and determine their relative weights of criteria and evaluators simultaneously. These weights are then put in use to the performance evaluating processes. A numerical example is applied to illustrate and verify this approach.</i></p>
<p>575 - Enhancement of Understanding of Relationship Between Performance Measures at the Operations Level Roberto Antonio Martins, André Luís Trónia De Abreu</p>	<p><i>This paper aims to pose the empirical findings from a quasi-experiment on the enhancement of understanding of relationship between performance measures carried out in a large Brazilian company. During four months the researchers and operational group had developed the relationship between the performance measures. A</i></p>

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<p style="text-align: center;">Academic</p>	<p><i>control group was set up to compare the findings. After the quasi-experiment, the experimental group improved their understanding of relationship the performance measurement while the control group stayed in the same level of understanding.</i></p>
<p>576 - Improving the Continuous Improvement Process Through Performance Measurement Roberto Antonio Martins, Rychard Nascimento Bezerra Academic</p>	<p><i>This paper poses the main findings of quasi-experiment carried out to improve the continuous improvement process through better use of performance measurement information at operational level of a large scale Brazilian beverage plant. The improvement team of filling process in the studied company has been facing difficulties to decrease the non-conformities besides the initial application of QC Story. The main hypothesis is that the improvement of both relevance and ambiguity of performance measures improves the use of performance measurement. This leads to an enhancement of continuous improvement activities and achievement of improvement targets.</i></p>
<p>577 - An Analogy Between Schrödinger's Cat and Performance Measurement CJ Kruger, MMM Snyman Academic</p>	<p><i>In the attempt to broaden the debate surrounding performance measurement, this paper challenges historical paradigmatic thinking, while at the same time supporting emerging paradigmatic positions, as proposed by authors such as Moullin (2005b,c), Bocci (2004), Pratt (2005), Neely (2005), and Kruger (2005). In drawing an analogy between Schrödinger's thought experiment and performance measurement, the paper not only proposes answers to the question of why performance measures fail(ed), but also advocates a merger between performance measurement, knowledge management, strategy and tactics. It is argued that this merger will promote interdependency, encouraging a shift away from what is divergent to what is common - common understanding of why we are in business and common understanding of the need to share knowledge. The main thrust of the paper is the proposition that the proposed merger possesses the ability to expand the sphere of an organization into an environment comfortable for all stakeholders, conducive to the sharing of knowledge, considered by many to be a prerequisite for the future success of organizations.</i></p>
<p>578 - Performance Measurement in an Internal Service Unit: Balanced Measurement Must Include Financial Aspects Bjørn Andersen, Lars E. Onsøyen Practical Application</p>	<p><i>Since the 1980s, there has been a massive wave of research and literature criticizing management accounting and performance measurement systems for being overly focused on financial aspects and needing more balanced performance dimensions (Kaplan and Johnson with Relevance Lost/Relevance Regained, Sink and Tuttle, most famously Kaplan and Norton with the Balanced Scorecard, and numerous other authors). This is certainly a justified critique and one we agree with completely. However we have recently witnessed a case</i></p>

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	<p>where it seems as if the pendulum has swung too far away from financial measurements, leading us to reflect on this issue again. Going to extremes is rarely the best solution, and this case study has demonstrated that removing financial measures altogether can be detrimental in terms of employee motivation and behavior</p>
<p>579 - Measuring the Performance of Professional Services With an Application of DEA to Financial Audits Paul Rouse, Robert Kneche, Caren Schelleman Academic</p>	<p>Service/manufacturing distinctions are usually recognised. However, distinctions within service organisations can be drawn between those that bundle service with a product(s), to those that provide services only, such as professional services. Using a modified production model and Data Envelopment Analysis (DEA), we find client and audit branch characteristics affect performance of audits performed within a single auditing firm. From this auditing study we provide insights towards better modelling professional services.</p>
<p>580 - A Measurement System for Managing Performance of SME Clusters Luiz C. R. Carpinetti, Edwin V. C. Galdámez, Mateus C. Gerolamo Academic</p>	<p>Performance measurement systems have been applied in companies as a means to deploy improvement actions related to strategic objectives and monitor results so as to give feedback for further action. However, performance measurement can also be applied to manage performance of a cluster of firms. After a brief review on performance measurement and the concept of collective efficiency of a cluster, this paper presents and discusses a conceptual model for performance measurement and management of a SME cluster. A research case under study, for which metrics are deployed, is presented and the benefits and difficulties of integrating such concepts are discussed.</p>
<p>582 - Diagnosing Your Company's Innovation System Josune Sáenz Academic</p>	<p>The aim of this paper is to provide a framework for the development of a new measurement system which will help companies to diagnose their innovation capability. Adopting a resource-based view, the measurement system proposed is intended to show whether the company has the right combination of resources (financial, physical, and intangible) in order to foster effective and efficient innovation, which is a core competence to be developed or enhanced in many companies. Moreover, the system is aimed at showing the performance level attained in the innovation process, its outputs, and its outcomes.</p>
<p>583 - The Effects of Performance Measurement on Leadership and the Quality of Working Life – Perspectives of Management and Employees J. Ukko, J. Tenhunen, H. Rantanen Academic</p>	<p>The aim of this study is to explore the effects of performance measurement in circumstances where the measurement is applied to the operative level of the organization. The impacts of performance measurement are examined from the perspectives of both management and employees. The study presents the impacts of performance measurement on leadership and the quality</p>

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	<p><i>of the working life of employees, and reveals the underlying factors behind these impacts.</i></p>
<p>584 - Performance Measurement and Employees: Knowledge, Understanding and Opportunities to Participate in Decision-Making J. Karhu, J. Ukko, H. Rantanen Academic</p>	<p><i>This paper presents the results of a study conducted in Finland in 2005. The purpose of the study was to find out the differences between blue- and white-collar workers and managers concerning knowledge of performance measurement, understanding of targets, and participation in decision-making. The study revealed significant differences between these groups. Although the blue- and white-collar workers were not as familiar with performance measurement as the managers, they understood their targets well. The blue- and white-collar workers wanted to participate in decision-making more than they did at the moment.</i></p>
<p>587 - How to Select Hedge Funds: Introducing Monte Carlo Simulations to Evaluate Hedge Fund Investment Performance Ronald Surz Practical Application</p>	<p><i>Monte Carlo simulations are well-known to the alternative investments community. Randomly generated outcomes provide a backdrop for decision making by revealing what could happen under uncertainty. In this article we introduce a new use for Monte Carlo simulations that evaluates investment performance by comparing what actually happened -- a fund's actual return -- to what could have happened -- the range of possible implementations of the fund's strategy. Specifically we advocate the use of Monte Carlo simulations, rather than peer groups, for evaluating the performance of long-short equity hedge fund managers.</i></p>
<p>589 - 'Sensemaking' in Strategic Processes - Measuring and Assessing Knowledge Capital in the Software Industry Andrea Fried, Volker Linss Academic</p>	<p><i>The paper refers to Mintzberg's emergent strategy approach and shows the importance of a sensemaking process in a software company while the creation of a performance measurement instrument. "Sense is in the making" postulates the participation of organizational members in order to translate the how and why of strategies, derived business ratios, and indicators of knowledge capital into an every day working-context. In particular, special attention is thereby given to the interconnectedness of the resources.</i></p>
<p>590 - The Appropriateness of Introducing Performance Related Pay into England's Primary Schools A Brown</p>	<p><i>A particularly controversial aspect of the performance management (PM) system adopted for England's state maintained schools has been the decision to include performance related pay (PRP) as part of the system. The main purpose of this paper is to consider the appropriateness of introducing PRP into primary schools. The paper concludes by arguing that PRP, at least in its current forms, does not appear to be well suited to the context of England's primary education system.</i></p>

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<p>591 - Measuring Company Success Andrew Likierman Practical Application</p>	<p><i>How do we know a company is successful? Much of the academic literature across subject disciplines assumes a view of performance which is based on a run of years of conventional financial measures, often profitability or return on assets compared to peers or a wider sample of companies. In some cases share prices are used but “success” in the literature generally means past financial success</i></p>
<p>592 - Intellectual Capital and Performance Measurement: An Exploratory Study in Taiwan Healthcare Sector Tzu-Ju Ann Peng, Göran Roos, Stephen Pike Academic</p>	<p><i>This research links intellectual capital perspective with hospital performance, aims at answering what are the elements and relative importance of intellectual capital and performance measurement in Taiwan healthcare industry. We developed a preliminary questionnaire with detailed elements that were further refined by a pilot study. The results identified important healthcare intellectual capital elements and performance indicators and their relative importance. Theoretically, this study is a starting point of exploring healthcare intellectual capital and hospital performance in Taiwan. Practically, our finding contributes to more valuable references of performance management in Taiwan healthcare sector.</i></p>
<p>593 - Intellectual Capital Benchmarking: An Application to the Italian Regions A. Lerro, D. Carlucci, G. Schiuma, R. Tolve Academic</p>	<p><i>This paper assesses and benchmarks the relative ownership of Intellectual Capital (IC) of the Italian Regions by constructing a single index – the Regional Intellectual Capital Index (RICI) – on the base of the adoption of the data collected by ISTAT in the years 2001-2003. The RICI is designed and developed according to the implementation of the Knoware Tree (KT) as framework for the identification, classification and assessment of the IC components within organizational systems. Evidences show theoretically the validity of the KT framework as tool for assessing IC as well as empirically confirm the existence of considerable gaps between the North and the South Italian Regions IC ownership.</i></p>
<p>595 - Aligning Individual Contribution to Corporate Strategy: Cascading the Balanced Scorecard at Ricoh Corporation Edward A. Barrows Practical Application</p>	<p><i>Aligning individual worker contribution to organizational strategy persists as one of the more difficult tasks in strategy implementation. The Balanced Scorecard—when properly cascaded—can provide a useful mechanism to achieve strategy alignment provided the process of cascading is accomplished properly. This paper discusses the approach and activities followed during a multiyear cascading of a corporate level Balanced Scorecard from a headquarters group through six geographic operating regions down to individuals inside a \$3 billion sales organization. It makes a contribution to practice by providing a set of guidelines that can be applied for any strategy deployment process that includes cascading to the employee level.</i></p>

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<p>596 - Challenges for Design and Implementation of the Performance Evaluation System Within a Specific Cultural Context: The Serbian Case Nebojša Janićijević, Biljana Bogićević Academic</p>	<p><i>This paper addresses difficulties with implementation of performance evaluation (PE) in three Serbian companies, within the cultural context generally incompatible with the purpose and the nature of PE, in order to investigate possibilities for implementation of culturally more sensitive PE system in Serbia</i></p>
<p>597 - Measuring a Key Component of Intangible Assets: The Human Competency Bruno H. Rocha Fernandes, Maria Tereza L. Fleury Academic</p>	<p><i>The aim of this paper is to assess human competency, as a key component for organizational performance. Competency is a two dimensional concept comprehending inputs like knowledge, skill and attitude (SKA), and outputs (use of these SKA in a professional context). Competency should also be assessed in work level scales. Departing from this perspective, we have proposed four generation of competency models. A study to test two of the fourth generation model assumptions was conducted on Brazilian water company. In the conclusion, the three dimensions above mentioned were considered important to distinguish on assessing an employee's competency.</i></p>
<p>598 - Value-Based Management in Practice: Lessons Learnt Carolyn Stringer Academic</p>	<p><i>This paper reports lessons learnt from a longitudinal field study that highlights the complexities of implementing value-based management practices in a large and decentralised organisation. The findings also show that value-based management practices were implemented differently from the prescriptions of the consultants. Reasons for this include the impact of context, structure and the way these practices tend to be 'built onto' an organisation's existing performance management practices.</i></p>
<p>599 - Innovation and the Performance Management System James Brown, Nigel Courtney, Chris Hendry Academic</p>	<p><i>Understanding the drivers of innovation performance is an important issue for management. We present the results of an analysis of two datasets that derive from audited investigations into the innovation performance of UK companies. The model reveals that innovation processes in manufacturing and services have much in common, but that differences are evident, particularly in the extent to which product development teams are given the scope to be creative or are constrained by standardised practices. We interpret this model in a number of case studies in the services industry.</i></p>
<p>600 - The Impact of Attainment Discrepancy After Benchmarking on Changes in the Business Portfolio in Diversified Firms Tom De Schryver Academic</p>	<p><i>I investigate whether signals from financial reports initiate business portfolio changes in diversified firms. Nowadays, the corporate centre of diversified firms commonly restructures when signals from the business landscape have been picked up. However, since signals from financial reports are fuzzy, it is unclear if the corporate centre makes use of them I argue that</i></p>

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	<p><i>benchmarking business performance eliminates information asymmetries and is a useful tool for the corporate centre to speed up corporate interventions. In particular, when benchmarking has signalled attainment discrepancy, I argue that the corporate centre has a strong case for initiating business portfolio changes.</i></p>
<p>603 - Measuring Corporate Entrepreneurship: In Search for the Universal Tool Reflecting Firm Performance Prof. Mariusz Bratnicki, Dr Wojciech Dyduch Academic</p>	<p><i>This paper seeks to determine the relation between corporate entrepreneurship measured with different scales, and performance of the organisations in transition economy. In our work we compare various entrepreneurship measurement tools: entrepreneurial management (Stevenson, Jarillo 1990), entrepreneurial orientation (Lumpkin & Dess, 1996), Corporate Entrepreneurship Activity Index (Hornsby, Kuratko & Zahra, 2002) and Entrepreneurial Performance Index (Morris & Kuratko, 2002). We analyse which dimensions of entrepreneurship correlate best with performance in order to propose an integrated tool for measuring corporate entrepreneurship that could be included in the Performance Measurement and Management Systems.</i></p>
<p>604 - Leveraging IC in SMEs in IT - Insights From a Nordic Project Eggert Claessen M.Sc. Practical Application</p>	<p><i>This paper is a description of how 20 SMEs in the IT sector in the five Nordic countries have systematically worked together on a project to leverage their intellectual capital to secure a competitive advantage. It has been a learning journey with ambitious goals. These goals include the compilation of a common framework for understanding IC, to harmonize the indicators used to measure IC and last but not least to improve business performance as a result of this work. The paper discusses some of the challenges and actions on the way and how the companies perceive the benefits of their work. It also discusses the issues of communicating the results of IC disclosure with the various stakeholder groups of the companies.</i></p>
<p>605 - The Use Of EBITDA for Management Control: Potential Distortions and Limitations Fábio Frezatti, Andson Braga De Aguiar Academic</p>	<p><i>This article analyzes the potential distortions and limitations that can arise from using EBITDA (earnings before interest, tax, depreciation, and amortization) as the principal long-term financial indicator for management control. The case study demonstrates that, in an industry segment characterized by significant cash investments and fixed cost structure, EBITDA fails to reflect real operational cash generation, and thus fails to provide adequate direction for managers charged with responsibility for strategic decision-making. Although EBITDA continues to be an indicator favored by external analysts and shareholders, the study finds that it is an inadequate indicator for control by internal management.</i></p>

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<p>606 - An Organisational Framework for Design and Implementation of Performance Management Systems Dr Graeme Cocks Practical Application</p>	<p><i>This paper presents the key findings of a three-year empirical study to identify Australia's long-term top performing organisations and to explore the common elements and performance measures that set these organisations apart.</i></p>
<p>607 - Implementing a Balanced Scorecard Framework in a Not For Profit SME G.Manville Academic</p>	<p><i>This paper explores the implementation of a performance management system using the balanced scorecard (BSC) within a not for profit small and medium sized enterprise (SME). Currently there is a lack of published research on BSC implementations within this sector. The paper relates the development in the literature on the BSC to the experiences of a Housing Association which also provides support services. The paper concludes that their experiences concur with the published literature and that a performance measurement system is now in place. However, there is still more to do before the Association attains a true performance management system.</i></p>
<p>608 - A New Model For Managers Assessment Hamid Reza Qasemi Academic</p>	<p><i>Managers 'assessment is describable from two dimensions. First is performance in which performance of organization managers evaluate and judge in tending of organizational excellence and managers development. Second is attraction and recruiting new managers that its goal is use of new ideas, methods, manners and competencies in the organization. This paper provides a model that has application in both dimensions. The paper first discusses briefly assessment objectives, assessment of organization, performance, management, and managers. Then reviews some assessment models and in continue, describes the model. The model assesses managers from five angles. These views are those manager functions, manager roles, manager skills, organizational level of manager, and manager competencies. Each of them is converted to detailed divisions. It is identified a scale for each criterion in terms of level. Then it is provided the scale in form of a spectrum.</i></p>
<p>609 - Process Management by Activity-Based Costing (ABC) or Continuous Improvement Programs (CIP)? Effectively Implementing a Process View of the Organization Joachim Sandt Practical Application</p>	<p><i>§ A process view which enables process management and improvement is not well established in many companies yet.</i> <i>§ Even the development and implementation of activity-based costing (ABC) has not changed that significantly.</i> <i>§ Continuous improvement programs like Six Sigma with their structure and uniform terminology seem to be more effective in establishing a process view among employees and realizing process improvements.</i> <i>§ While doing or after having done CIP-projects within organizational units data from an ABC-system can be supplemented to those units. As the less system but rather structure driven CIP-projects have established a process view among the employees they are more likelv</i></p>

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	<p><i>to accept and actually use ABC-systems.</i></p>
<p>610 - Balanced Scorecard: Structure and Use in Canadian Companies M. Soderberg, S. Kalagnanam, N. Sheehan, G. Vaidyanathan Academic</p>	<p><i>Based on Kaplan & Norton's (1996, 2001) work on the balanced scorecard (BSC) we develop a 4-level ordinal classification scheme for classifying a firm's performance measurement system according to whether it shares attributes with Kaplan & Norton's BSC. We apply the scheme to survey responses from a sample of Canadian organizations and group the respondents into the four levels. In addition we examine each level to uncover any patterns in firm characteristics both within and across the levels.</i></p>
<p>612 - Incentive Compensation and Performance Measurement in the Property and Casualty Insurance Industry Joseph Calandro, Jr., Scott Lane Academic</p>	<p><i>Changes in the property and casualty (P&C) insurance industry, and changes in executive compensation in general, have lead to a situation where P&C managers have increased opportunities and motivation to influence earnings. A significant opportunity to influence earnings arises out of establishing and managing insurance claims reserves, which are composed of both case and actuarial reserves. This is significant because many insurance incentive compensation programs are based on yearly reported earnings. This paper presents an alternative insurance executive compensation approach. The approach utilizes a more accurate measure of insurance performance, accident year analysis—in place of the more traditional calendar analysis—and a bonus bank program.</i></p>
<p>613 - The Number of Performance Indicators That Can Effectively be Handled Leo Kerklaan, Carien Verhoeff, Cris Zomerdijk Academic</p>	<p><i>Advanced performance information systems do not limit the number of performance indicators, the levels of drilling down, nor the frequency of refreshing the information. This implies a high risk of information overload. Hardly any specific reseach had been done regarding the maximum number of indicators a manager can deal with in order to control performance. This paper describes the set up of an internet survey designed to find out the number of indicators managers consider as a maximum to apply in practice and the factors that will influence the choice.</i></p>
<p>615 - Performance Measurement in Railway Operations – Improvement of Punctuality and Reliability Mads Veiseth, Umit Bititci Academic</p>	<p><i>This paper focuses on how railway companies could develop their performance measurement system to improve train punctuality and reliability. Best practice from the performance measurement literature is compared with practises in the railway industry. Most of the indicators used to control and improve punctuality and reliability today are lagging indicators that measure results. It is therefore a need to develop more leading</i></p>

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	<p><i>indicators that measure the processes that influence punctuality and reliability. The measurement system should also be extended to measure effects of punctuality and regularity and to measure management processes that increases the focus on punctuality and reliability.</i></p>
<p>616 - Performance Measurement and IT – Do We Need New IS Development Paradigm? Nenad Markovic, Miodrag Vukovic Academic</p>	<p><i>Latest research of performance measurement systems and information technologies indicates that there is a strong connection between the two. However, during the designing of systems for performance measurement, informational demands are reviewed at the end of the design process and furthermore, not enough attention is paid to the needs for performance measurement in the development of information systems. This paper postulates that there is a need for a new way of thinking and that effective performance measurement strategy now must also integrate the consideration of information system strategy within its subject matter.</i></p>
<p>619 - Using the Public Sector Scorecard for Sheffield's Stop Smoking Service Max Moullin, John Soady, John Skinner, Charles Price, John Cullen, Christine Gilligan Practical Application</p>	<p><i>The Public Sector Scorecard (PSS) is an integrated service improvement and performance measurement framework for the public and voluntary sectors, based on the Balanced Scorecard. The paper describes the application of the PSS to Sheffield's Stop Smoking Service and concludes that it has many benefits both in improving the service and in aligning its strategy, processes and performance measures both with each other and with the requirements and expectations of service users and other key stakeholders.</i></p>
<p>622 - Measuring the Performance of Management Patrick Hoverstadt Practical Application</p>	<p><i>This position paper contrasts two paradigms of Performance Management: the traditional, linear & deterministic and the systemic & cybernetic. The Viable Systems Model from the cybernetic paradigm offers a rigorous framework for designing PM structures; in addition it defines the role of management as "opening and closing the strategic gap". This definition provides a basis for measuring management performance. Traditional methods of measuring management performance misattribute operational performance to management and are very misleading. The cybernetic approach measures managers' ability to both run and to change their organisations and strengthens the role of subjective assessment in decision making.</i></p>
<p>623 - Organizational Capability for Getting Over the "Edge of Chaos": Performance Management System as a Driving-Force in SMEs Patrizia Garengo, Giovanni Bernardi Academic</p>	<p><i>For many years, Italian Small and Medium Enterprises (SMEs) have undergone important changes in their industrial sectors; significant delocalization processes have been taking place and there have been developments in the technology of products and processes. Despite this, there has been no parallel development of organizational aspects and difficulties in</i></p>

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	<p><i>managing complexity have often been identified. The aim of this study is to investigate organizational capability in Italian SMEs. The evolutionary path followed by these companies is explored and the role played by performance measurement system, as a potential driver of managerial development in SMEs, is highlighted</i></p>
<p>624 - A Framework for Measuring Organizational Performance in the Public Sector Paul E. Pakos Practical Application</p>	<p><i>A comprehensive approach to implementing an organizational performance measurement system in a public sector environment is described. The conceptual approach to measuring both efficiency and effectiveness is fully detailed, as is the linkage between those measurements and performance-based budgeting. Examples are given as to how the concepts have been successfully employed to measure efficiency in one U.S. federal agency and to measure effectiveness in another. Key results and lessons learned are described for each case.</i></p>
<p>626 - Design of a Comprehensive Performance Measurement System for Credit-Rating Assessment of Hospitals in China: The Quest for Performance and Control Karen Zhang, Artie Ng Practical Application</p>	<p><i>This paper provides a review of the consultancy experience in designing a comprehensive performance measurement system for the credit-rating assessment of hospitals engaged with the social medical insurance agency of China. This particular initiative was taken in response to the alleged problems associated with the deteriorating healthcare services after the past decades of reform. The consulting team composed of interdisciplinary professions was engaged to explore the development of a performance measurement system framework to enable the resource providers to fairly assess the performance of individual hospitals and to determine adequate ratings. Through a trial assessment, challenges and opportunities are presented for the future development to integrate measures for internal control and performance while stimulating continuous improvement within a healthcare organization.</i></p>
<p>627 - Mission-Oriented Scorecard: A Framework For Public Sector And Not-For-Profit Organizations - The Case Of Local Health Authority Of Modena F. Bocci, E. Luppi, G. Neri</p>	<p><i>The aim of this paper is to describe the Mission-Oriented Scorecard (MOS), how this framework has been used to design the performance management system (PMS) in the Local Health Authority of Modena and the benefits achieved by its implementation. The Mission-Oriented Scorecard is an evolution of the original Balanced Scorecard (BSC) specifically conceived for public sector and not-for-profit organizations, with special emphasis on the relationship between citizenship and organization. The MOS has been used by the Local Health Authority of Modena to successfully describe and map its strategy, cascade it consistently throughout the whole organization and monitor its execution.</i></p>

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628 - Selecting and Prioritizing Key Performance Indicators by Using The Analytic Network Process
D. Carlucci, R. Linzalone, G. Schiuma
Academic

A performance measurement system is aimed to drive and assess management actions for performance improvements achievement. The selection of adequate metrics is a critical factor for allowing managers to know how well their organisation is performing and what they have to do in order to improve organisation performance against specific targets. This paper suggests a network model based on the Analytic Network Process approach, in order to support the decision process of selecting the most suitable performance indicators. The model originates around the main qualitative characteristics required by performance indicators to enrich the quality of the company's information system and, therefore, to support decision making processes.

629 - Performance Measurement System for Benchmarking in the Construction Industry: Towards Knowledge Creation
Dayana Bastos Costa, Carlos Torres Formoso
Academic

The aim of this paper is to describe the learning approach developed for the design and implementation of a performance measurement system for benchmarking in the construction industry and to analyse the changes obtained by the companies from the perspective of their learning and skill development focus. This study was developed by using action research as research strategy. The main findings are the benchmarking club as a sharing learning environment and the companies' changes due to the use of indicators and best practices. The results showed that this learning approach could help the companies to transfer and create knowledge.

630 - Performance Measurement in SMEs, a New Approach
Donglin Wu
Academic

Small and medium sized enterprises (SMEs) play an important role in economy. Most SMEs are involved in strongly competitive environment. The performance measurement (PM) tools can help the enterprises identify the weakness in their management, clarify their objectives and strategies, and improve their management processes. However, most PM theories and research focus on large enterprises. This paper reviews the related PM research on SMEs, summarizes the challenges and features of PM in SMEs. After comparing the approaches of PM implementation in SMEs, the paper introduces a PM framework for SMEs based on the system theory and Business Excellence Model.

631 - Linking Knowledge Exploration and Exploitation and Performance. A Product Development Evidence
Elena Revilla, Isabel M^a Prieto, Beatriz Rodríguez
Academic

Product development is a knowledge intensive work. It is widely recognized as a mechanism enabling firms to learn and enter new technological areas and to deal more effectively with market uncertainty. In this context, this study empirically explores the link between knowledge generation capability and performance in product development by comparing how the main dimensions of knowledge generation capability - exploration and exploitation- impact on performance. To

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	<p><i>further this understanding we introduce a typology of product development in term of its knowledge generation capability. Specifically, our results show that the highest performance requires a symbiosis between knowledge exploration and exploitation.</i></p>
<p>632 - A Set of Requirements For Analysis of Performance Measurements Systems Miguel Ángel Heras, Vicenta Sierra, José Luis Guerrero-Cusumano Academic</p>	<p><i>The aim of this paper is to contribute to the study of Performance Measurement Systems in companies that have introduced Quality Management Systems. Fifteen constructs were created based on a previous statistical survey. The questionnaires of the survey, which consider the gaps between ideal and actual performance of indicator systems, are analyzed using non-parametric statistical techniques. As a result of this analysis, sets of correlated questions were identified and a common explanation was constructed to each group. These constructs (Remenyi et al., 1998) can be interpreted as requirements or prerequisites for implemented performance measurement systems. These requirements may be used for assessing the soundness of specific performance measurement systems. The result of the assessment may be used for continuous improvement of companies and will be reflected in the increase of scores of these organizations related to EFQM and Malcolm Baldrige models, and subsequently also of an increase of the excellence level of the companies.</i></p>
<p>633 - Supply Chain Process Maturity and Performance - The Network Configuration Dimension Jagjit Singh Srail, Yongjiang Shi, Mike Gregory Academic</p>	<p><i>Maturity Models have emerged in many operational environments with the underlying premise that advanced stages of process maturity will lead to superior operational performance. This in-turn has driven many manufacturing businesses to adopt these models and the processes that they promote involving considerable management focus and cost. In our studies however, across a range of international manufacturing businesses, advanced levels of supply chain process maturity do not fully meet the expected advanced levels of operational performance. Indeed, supply networks with limited process maturity have exhibited leading edge performance suggesting other supply network configuration related attributes are at play providing intrinsic capability advantages.</i></p>
<p>634 - Measuring the Performance Measure “Residual Income” – How to Adjust for Intangible Assets? Jan Doppegieter, Martin Zoller Academic</p>	<p><i>Intangible assets are a key driver of corporate value creation. Accounting standards only allow for a limited disclosure of intangible assets. Whereas residual income is, in essence, accounting-based, it is argued that it measures shareholder value, including that created by intangibles. Residual income advocates suggest adjustments to accounting numbers to recognize the impact of intangibles. From a managerial perspective, this paper explores how and to which extent residual</i></p>

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	<p><i>income and its components - accounting profit, invested capital and cost of capital - are influenced by (un)recorded intangible assets and how they should be adjusted for.</i></p>
<p>636 - Addressing the Vexed Relation Between Employee Ownership and Firm Performance in Knowledge Intensive Firms Mairead Tracey, David O'donnell, Tom Kennedy, Philip O'regan, Peter Cleary, Nick Bontis Academic</p>	<p><i>What is the relationship between employee ownership and performance in knowledge-intensive firms (KIFs)? This is the vexed relation addressed in this brief working paper. We review some recent empirical evidence for the idea that KIFs benefit from using broad-based employee ownership schemes, noting that precisely how such performance benefits occur has yet to be ascertained with any great precision. We then present a modest empirical test on this relation based on perceptual responses from chief financial officers in the Irish ICT sector; no significant associations are found. We conclude that employee ownership remains a legitimate institutional form.</i></p>
<p>637 - Competence Assessment and Organizational Performance in Practice: A Study of an Insurance Company Marcos Bosquetti, João P. Soares, Liliana Vasconcellos, Maria Tereza L. Fleury Academic</p>	<p><i>This paper is a critical reflection on the role and benefits of rigorous competence evaluation and sophisticated tests of causal models to validate the assumed links in performance measurement systems, including the causal relationships between competency and business performance. The main lesson learned from this case study is that there appears to be no benefits in rigorous competence evaluation and in testing causal relationships between measures in young and fast growing companies. The dynamics of the context and the stage of the company in its life cycle must be considered before implementing rigorous and sophisticated measurement methodologies</i></p>
<p>638 - Performance Review: A Definition Analysis Veronica Martinez, Mike Kennerley Academic</p>	<p><i>The purpose of this paper is to analyse the different definitions of performance reviews and provide a better understanding of the use and classification of them. The methodological process to gather data follows a systematic literature review in two major search engines. It is followed by a content analysis. This research identified different types and definitions of performance reviews and differentiated the various review levels. It also proposes a classification of performance reviews for managing business performance. This research opens a discussion on the analysis of the definitions of performance reviews and invites further analysis of the definitions by extending it to other search engines.</i></p>
<p>639 - Modelling Organisational Performance Using Stakeholder Objectivity Peter C. Grossi, Prof. Hefin Rowlands, David J. Harwood Academic</p>	<p><i>A number of models exist to help managers measure and control the performance of their organisations. Among the most widely used are the European Foundation of Quality Management (EFQM) Excellence model, and the Balanced Scorecard. This paper looks at those and other models as well as standard accounting</i></p>

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	<p><i>measures, and considers their weaknesses from performance management and modelling viewpoints. Taking these issues in relation to stakeholders, a set of criteria is established for a more effective performance modelling system. A multi-layer model is then presented, which is tested for compliance with the proposed criteria.</i></p>
<p>641 - Rigorous Measurement of IC Value: What it Means and What the Benefits and Costs Might Be Philip K. M'Pherson Academic</p>	<p><i>The paper examines: 1) What is required if IC performance and value measurement are to comply with the exacting standards of both measurement science and accounting; 2) How the contributions to IC Value can be converted into \$-contributions towards Company Value; and 3) The benefits and costs of gearing up to these rigorous measurement standards.</i></p>
<p>642 - "Create Knowledge – Not Figures" The Importance of Measurement System Management J. Hallencreutz, R.Isaksson Practical Application</p>	<p><i>Measurement systems are used in all organisations, at least they should be. Still, they are seldom managed properly. We believe that identifying the measurement system as a resource for a process based system will help to improve performance. There are two main areas of contribution in this paper. The first is to demonstrate the potential that exists in improving measurement system management by applying a process based approach. The second is to develop a procedure for introducing a measurement management system.</i></p>
<p>643 - Process Based Performance Measurements R. Isaksson Academic</p>	<p><i>Performance measurements are often related to the functional division of an organisation. However, the value added is done in processes that often cross the functional boundaries. It could be that measurements that are of great importance for the external customer are not being properly followed up. Identifying important measurement could be done by using generic process models as a based for measurements. In this paper the usability of chosen models has been tested by using a case study research. Student reports from a course in process management and measurement have been used to study the usability in different organisational contexts.</i></p>
<p>644 - Relationships Among Key Performance Indicators Within The Performance Measurement System Context: Literature Review Raúl Rodríguez Rodríguez, Juan José Alfaro Saiz, Ángel Ortiz Bas Academic</p>	<p><i>This piece of work aims to up to date the reader within the relevant existing frameworks that deal with identifying the relationships among key performance indicators within the performance measurement system context. Once these frameworks have been presented, the authors carry out an assessment of the literature based on four main desirable characteristics that the suitable framework should possess. The main conclusion is that there is a gap to be filled in this field. Finally, it provides some recommendations about further research on this field.</i></p>

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645 - Measuring to Learn Whilst Learning to Measure
John Parsons
Practical Application

A measurement system that strives to close the gaps between measures, vision and culture by aligning the cognitive and affective domains will address all the substantive measurement issues faced by leaders in complex organisations, thereby enabling the potential for organisational learning, enhanced decision making and sustainable performance improvement to be realised. This presentation will explore the key technical (strategic) and social (cultural) issues that underpin the design and implementation of such integrated systems and the supporting tools and techniques available. It will define new roles for practitioners and the dangers that these bring despite the potential benefits for decision-makers.

646 - Operational Change and its Effect on Operational Measurement: Empirical Evidence From New Zealand's Manufacturing Sector
Richard Greatbanks
Academic

This paper explores the relationship between operational change and the consequential effect on operational measurement. Using data from a survey of New Zealand manufacturing companies, the level of operational change over a three year period is contrasted with changes to the operational performance measures. Five dimensions of operational change are considered. A positional model is then developed which is used to analyse the relationship between each of the five dimensions and their effect on operational measurement. Changes to the manufacturing process were found to have the strongest influence on operational measurement.

648 - Developing and Implementing a Strategy-Driven Performance Management System in a Higher Education Institution
Sérgio P. Santos, Carlos J. F. Cândido
Practical Application

Performance measurement in higher education has become a challenging issue over the past two decades. Increasingly, institutions of higher education have been required to develop performance measurement systems for both external reporting and internal management purposes. Despite this, little research has been documented regarding the application of the Balanced Scorecard in the education sector, especially at the departmental/faculty level. The objective of this paper is to contribute to filling this void by discussing the development of a performance management system, according to the principles of the Balanced Scorecard, in the Faculty of Economics of one of Portugal's newer universities.

649 - The Use of Performance Data in Service Design: The Case of a Fast-Food Chain
Dr Stephen Pike, Professor Göran Roos
Practical Application

In 2004, Intellectual Capital Services Ltd commenced an analysis of the trading conditions and value preferences of the present and target customer groups of a national fast-food chain. The most common techniques of performance measurement and conjoint analysis had not revealed results of use and thus conjoint value measurement was employed. Data collected during interviews with the public was analysed and a set of recommendations was developed which, if implemented would better align the company with the value system of

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	<p><i>their customers and would present the best chance of improving sales.</i></p>
<p>651 - Assessing the Quality of Directors' Reviews in UK Annual Reports Tim Ambler, Andy Neely Academic</p>	<p><i>Quoted UK companies will be required to prepare statutory Operating and Financial Reviews (OFRs) as part of their annual reports. Indecision by the UK government has lead to uncertainty about what they are called and some detailed matters, but this paper assumes that the regulations will be substantively unchanged (even if OFRs are not required, business reviews will be). To simplify the OFR task for companies, the marketing industry sponsored the production of a simple checklist that companies could use to verify that they had complied with the relevant sections of the ASB guidelines. The paper describes how the checklist was produced and used to score the compliance of FTSE50 annual reports.</i></p>
<p>652 - Performance Measurement System in Hotel Industry - An Empirical Study of Select Indian Companies Vinod Kr. Yadav Academic</p>	<p><i>Performance of any organization is one of the mechanisms to gain people's commitment towards achieving the stated objectives of the organization. Increased competition, rapid change, reduced resources and mounting employee expectations, have all combined in such as way that organization are being expected to achieve more out of less. The changing Indian economic and demographic structure has led to changes in life style at a faster pace than economic growth. The demographic imbalance complicates the task of creating and providing different services as per demanded by the different customers. Thus, measurement of these services becomes complex especially in hotel industry. Experimental approach to the service delivery processes in Indian hotel industry also hinders in effective implementation of performance measurement system. Traditionally, companies in hotel services place heavy emphasis on the use of financial measures although they are historical by nature. The role of non-financial indicators, such as customer satisfaction, quality assurance, productivity, employee development etc. becomes important as they determine the competitiveness of a business as well as its ability to sustain profitability in the future. Incorporation of non-financial indicators in performance measurement process is crucial particularly in the face of intense competition, shorter product (service) life cycle and rapid advances in technology, which characterize the contemporary business. Also, the changes in performance measurement practices should incorporate the changes in business environment and environmental variables in Indian hotel industry.</i></p>

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654 - Evaluation of DGEP on Government Sectors in Dubai
W.Jaffar, A. Miran, F. Almutwa, N. Ramadan, S. Gergash, H. Alali
Academic

Although the importance of performance measurement and self assessment is increasing, the literature is limited when it comes to discussing these issues in the Middle East. This study attempts to fill this gap by analysing the impact of Dubai Government Excellence Program (DGEP) on Dubai Government sectors. The study's analysis showed that there was a major impact on the sectors' performance, which in turn affected to create pioneer projects in Dubai. The study also recommend based on the analysis some areas for improvements in order to assist Dubai Government sectors to move forward with the excellence strategies.

655 - From Control by Regulation Towards Performance-Driven Steering: A Changing Balance Between Central Government and Institutions. Experiences With the Policy Trajectory: 'Steering By Ambitions in Secondary Vet' in the Netherlands
Christine Teelken, Wil Van Esch
Academic

The government intends to steer through performances. While this was first predominantly organised through output financing and accountability, in more recent approaches performance-driven steering is based on mutually approved expectations. This forms the basis of the policy trajectory 'Steering by ambitions in secondary VET'. Unfortunately, very little has actually changed because this policy trajectory did not take earlier experiences into account. Analysis of the intended policy trajectory on the basis of five critical success factors clarifies the strengths and weaknesses of policy trajectories based on performance-driven steering

656 - Financial Management of Design Expenditure: Integrating Reinforcing Activities
Bill Nixon, Petri Suomala
Academic

A confluence of changes in the intensity of competition, IT, product and process technology, and statutory regulation are supporting a more integrative, concurrent approach to investment in design decisions. Design is becoming a more central and pervasive activity within the new product design and development (NPD&D) process. Investment appraisal practices are focusing more precisely on the design activity by simultaneously drawing on information from the value management, risk assessment and performance measurement activities.

658 - Historical Analysis of Performance Measurement and Management in Operations Management
Zoe J Radno, David Barnes
Academic

This conceptual paper takes an historic perspective on performance measurement and management (PMM) within operations management (OM). It shows that most of PMM within OM derives from work study and productivity measurement within manufacturing during the industrial revolution. Since that time, three historic phases can be identified, which illustrate how views of PMM have moved in three directions: the broadening of the unit of analysis; the deepening of performance measures; and the increasing range of performance measures. The paper argues that in order to evaluate the effect of the movement in the three directions it is necessary to differentiation between the terms performance measurement, performance reporting and performance management. The paper concludes by presenting a number of reflections and challenges.

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659 - Competence Development and Performance Measurement: An International Study of Electricity Utilities

**Bruno H. Rocha Fernandes,
Marcos A. Bosquetti, John F. Mills
Academic**

This paper deals with institutional context, strategy, performance measurement and competence development. Firms develop strategies to cope with their environment and evaluate performance according to strategy. As a result, over time, they create organizational competences relevant to their strategy. However, a competence's strength will vary according to its alignment to institutional context and success in strategy implementation. A longitudinal study with six electricity companies in British and Brazilian markets over the period 1995-2005 was conducted to investigate that dynamic. The study concludes companies are susceptible to the institutional context, and their strategies and performance measurement systems nurtured competence development

660 - Measurement and Management of Employee Competence in a Health Care Organisation

**A. Jääskeläinen, P. Kujansivu, A. Lönnqvist, T. Kettunen
Academic**

This paper assesses the methods currently available to measure and manage employee competencies in a health care organisation. The key finding of the study is that the current competence measurement tools of nursing staff are not sufficient for the needs of health care organisations. Based on identifying a need for better measurement tools a new measurement approach is proposed. The paper is based on a case study in a Finnish health care organisation.

663 - The Roles of Performance Measurement in English Local Public Sector Organizations
**P. Micheli, M. Kennerley, A. Neely
Academic**

This paper focuses on the interactions between public sector organizations and institutions in the development of performance measurement systems. Building on a review of the literature and preliminary empirical data, the researchers set out to undertake two in-depth case studies in English local public sector organizations. The results obtained shed light on the problems caused by the current performance regime, especially regarding the establishment of a performance culture in local organizations. Finally, a better understanding of the different roles fulfilled by the measurement systems being used locally emerged as a primary concern.

664 - Performance Measurement Within a Highly Diversified Group of Companies
**P. Micheli, M. Agliati
Academic**

This paper discusses the first phase of a longitudinal study conducted in a highly diversified group of companies, which has grown significantly in the last few years through the creation or acquisition of a number of firms. Following this dramatic expansion, greater coordination, development of common strategies, and identification of synergies across the group are needed. Previous efforts have been directed mainly towards the development of a shared information system. The design of a consistent and balanced performance measurement system across the group could bring about the desired changes, if each company is sufficiently involved in the process.

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665 - Relationship Between Performance Measures and Financial Results in a Large Nordic Bank

**Kai Kristensen, Lars S. Mørch,
Henrik D. Sørensen
Practical Application**

The scope of the study is to analyze the relationship between employee satisfaction and motivation on one side and customer loyalty and customer profitability on the other in Danske Bank. Danske Bank is the leading financial institution in Denmark and one of the largest and highest rated in the Nordic region. Danske Bank has for many years measured and analyzed various aspects of business performance. In 2002 Danske Bank and Ennova, the partner of Danske Bank in performance measurement, teamed up with Center for Corporate Performance at The Aarhus School of business in order to set up a scientific approach to the analysis of performance measurement data. This led to a very large project, from which some of the results are presented here. The main conclusion is that in Danske Bank there is a very significant relation between satisfied and motivated employees and the bottom line results of the bank. This relationship holds good whether you are focusing on sales or whether you are focusing on costs.

668 - Creating a Model for Performance Evaluation of Public Organizations: A Case Study

**Ademar Dutra, Leonardo Ensslin,
Sandra Rolim Ensslin, Maurício
Vasconcellos Leão Lyrio
Practical Application**

This theoretical and empirical study, which is inserted in the context of evaluating public organizations, aims to develop a model for the performance evaluation of Secretarias de Desenvolvimento Regional – SDRs [Regional Development Offices] in the state of Santa Catarina, Brazil. The model is developed in order to enable the administrators of these SDRs to verify the performance of programs, projects and actions as well as the results generated for the population. The proposal of a model for performance evaluation as a management tool will enable administrators to identify weak and strong points for each SDR, thus making it possible to implement continuous improvement actions in a transparent and structured way. To achieve that, this study adopts a Multicriteria Decision Aiding – Constructivist (MCDA-C) methodology in order to carry out the case study in question.

670 - 'Plumbed-In Performance Improvement': Accelerating Improvement and Adaptation in Organisations

**Alan Meekings, Simon Povey
Practical Application**

Past research in the field of performance measurement and management has tended to focus on what to measure. The reality, though, is that most of the value in performance measurement lies not in the measures selected, nor even in how the data is presented visually (using SPC where applicable) but in the decisions and actions that flow from insights provided. Deriving maximum value from performance measurement requires linking powerful insights from data to appropriate decision-making, action and feedback. This paper describes the impact of a new genre of performance improvement software implemented alongside novel concepts in performance planning and review.

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671 - Strategic Performance Management Systems in Health Care: Implementation of The Balanced Scorecard in the English National Health Service
Eduardo Álvarez-Falcón
Academic

This paper presents findings regarding implementation of 'NHS Balanced Scorecard' at Acute Hospital Trust level, as part of a higher degree multi-level research project. The study concludes that although the framework has provided some benefits, strategies to overcome structural barriers and dysfunctional behaviours are needed. It requires being further developed, deployed, linked, resourced and supported to be sustainable in the long run. A huge effort of multi-level research is necessary for corroboration purpose. The 'NHS BSC Case' is an invaluable and innovative research setting with international impact to find new ways of improving Health System's performance.

672 - "Corporate Social Responsibility and Economic Value Added" A Study of the Strategic and Empirical Linkage in Indian Context
Dr.R.K.Mittal, Dr.Neena Sinha,
Archana Singh
Academic

In this study the link between good financial performance measure and other indicators of corporate responsibility has been explored. This study also aims at studying the trend and disclosure of CSR reporting by Indian companies and identifies the factors that motivate Indian companies to undertake these initiatives (e.g. regulatory compliance, product market competition, attracting and retaining employees, protection of reputation)? Another objective aims to emphasize on accounting and reporting standards as a tool for measuring corporate social responsibility. Thus, this study seeks to investigate the relationship between ethical commitment and financial performance over the four-year period, through statistical regression and correlation analysis. Case studies of few Indian companies who have successfully implemented CSR initiative have also been analyzed to study the levels and nature of engagement of Indian companies in corporate responsibility initiatives. The findings suggest that:

- The area of social performance, which has been most strongly linked to good financial performance, is related to employee's welfare.*
- There is little evidence that good social or environmental performance leads to poor/good financial performance.*
- Analysis of case studies reveals that corporate responsibility reports about India need to be absorbed with caution. It is important to look beyond the obvious and question every statement made by both businesses and NGOs about the improvements on the Indian environmental and social responsibility scene.*
- As with many corporate practices, the CSR culture has to permeate through the entire organization. In many ways, CSR will work only if all the employees are conditioned with an urge to do well. This kind of volunteerism not only makes CSR more effective, it also motivates employees as they participate in a laudable cause, giving additional meaning to life.*

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673 - Managing The Performance Locally - The Balanced Scorecard of Sew Eurodrive Italia, a Subsidiary of a Multinational Company

**F. Bocci, M. Mojoli
Practical Application**

This paper focuses on the issues of design and implementation of a performance management system, based on the Balanced Scorecard (BSC) methodology, in the Italian subsidiary of a multinational company: Sew Eurodrive. It discusses why the BSC has been embraced by the subsidiary, how the global strategy of the company has been translated in local actions by the subsidiary through the BSC, how the BSC has been developed, what results have been achieved by its implementation and use and how the first release has been refreshed after the first year of use.

674 - Performance Measurement in the Civil Construction Sector of a Brazilian City

**Cláudio De Araújo Wanderley,
Juliana Matos De Meira, Rosa
Fidélia Vieira Cavalcanti And Luiz
Carlos Miranda, Ph.D
Practical Application**

The aim of this paper is to identify which performance measures are the most used and the most important for companies in the civil construction sector of Recife's metropolitan area (a city situated in the Brazilian Northeast, and one of the 10 biggest in Brazil). In addition, the paper seeks to identify some aspects relating to the performance measurement process used by these companies. To achieve the aim of the study empirical research using questionnaires was carried out. The results show that companies in the civil construction sector of Recife's metropolitan region use and give priority to traditional indicators of performance measurement, especially those related to costs and financial aspects, such as profit margin and return on investment.

675 - The Internet as an Alternative Methodology to Collect Performance Measures: A Study in Brazilian Companies

**Juliana Matos De Meira, Cláudio De
Araújo Wanderley, Tibério Da Silva
Cursino Gomes, Luiz Carlos
Miranda, Ph.D
Practical Application**

This paper shows the results of research regarding the main performance measures used and published by Brazilian companies on their internet sites. In addition, this study has two other objectives: (a) to suggest an alternative methodology in order to collect performance measures; and (b) to test the viability of using the Internet as a source of information regarding performance indicators. The results show that the Internet is a good source of information to obtain new performance measures and to do benchmarking. It can be observed that the non-financial measures are published more on the Internet than other types of indicators. Finally, this research found that the utilization of non-traditional indicators is still very restricted.

676 - A Collection of Measures for the Learning and Growth Perspective of the Balanced Scorecard

**Cláudio De Araújo Wanderley,
Juliana Matos De Meira, Ana
Carolina Miranda Da Silva, Luiz
Carlos Miranda, Ph.D.
Practical Application**

The purpose of this paper is to present, in a systematic manner, a collection of performance measures for the learning and growth perspective of the Balanced Scorecard, seeking to support managers who are implementing this performance measurement system in their companies. This study was based on research into the literature. 26 books published in England, the United States and Brazil, devoted to the study of business performance measurement, were examined. As a result, 89 indicators applicable to the learning and growth

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	<p><i>perspective of the Balanced Scorecard were catalogued. These measures are divided in the following way: (a) 41 indicators of employee capabilities, 18 financial and 23 non-financial; (b) 28 indicators of information systems capabilities, 18 financial and 10 non-financial; and (c) 20 indicators of motivation and empowerment, 2 financial and 18 non-financial.</i></p>
<p>678 - Management Control Non-Systems - Some Preliminary Thoughts on Why Systems May Disintegrate in Practice Viktória Bodnár, Dávid Dankó Academic</p>	<p><i>Goal orientation towards a unified goal, consistency between system elements and a high degree of their integration are characteristics which are often attributed to the management control toolset that organizations use. However, there seem to be serious doubts if management control systems can really be understood as 'systems'. As regards theory, it is doubtful whether the usual recommendations on how management control 'systems' should be construed actually result in a 'real' system, i.e. a set of independent but closely interrelated elements subordinated to a common goal. Interrelationships, feedbacks and processes between individual system elements are easier to imagine intuitively than to prescribe scientifically. We may even have an impression that the system-nature of management control phenomena is more often treated as an unquestioned basic belief than as a scientific evidence. We executed a small research program of examining three Hungarian business organization cases in order to point out that most management controls in practice do not add up to unified, consistent and integrated systems.</i></p>
<p>679 - Using Public Value Theory to Assist in Understanding How and Why Executives Intergrate Results-Based Management Within the Canadian Public Sector David Try, Dr. Zoe Radnor Academic</p>	<p><i>This research examines and assesses how Canadian federal public sector executives have responded to changes in management and accountability introduced by Results-based Management, through the perspectives of executive public servants themselves. In seeking greater understanding of the underlying drivers of Results-based Management adaptation, this paper investigates the theoretical contribution of Public Value Theory in assessing executive behaviour.</i></p>
<p>680 - Adding Value Streams to IC Statements Eggert Claessen, Rob Mclean, Pat Sullivan Practical Application</p>	<p><i>This paper describes the underlying theory and context for an on-going experiment to determine if dynamically linking a value stream model with an IC Report provides important insights for an organization's Board of Directors.</i></p>
<p>681 - Balanced Scorecards Within Italian and Australian Local Public Sector Contexts F. Farneti, James Guthrie Academic</p>	<p><i>New public management (NPM) changes in both the Australian and Italian government sectors have affected their modus operandi. This research aims to focus on how the Balanced Scorecard (BSC) has been used in both Italian and Australian local government organisations focusing on implementation and practice</i></p>

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	<p><i>The findings of the paper suggest that the BSC has been used internally and, in part, externally to develop a public sector accountability reporting technology. The main finding is that internal experimentation with the BSC provided some material for an external accountability reporting technology (e.g., Best Value reporting; Social Mandate reporting).</i></p>
<p>682 - The Deployment of Advanced Management Accounting Techniques in Italian Manufacturing Firms: An Empirical Investigation Abdel-Maksoud A, Cerbioni F, Menini A, Ricceri F Academic</p>	<p><i>Based on a survey of management accountants/financial controllers of 1,565 large Italian manufacturing firms, this paper analyses the level of deployment of ‘non-financial performance measures (NFPMs) and ‘advanced management accounting techniques (AMATs). The study investigates if industry, size and managers perceptions of the extent of importance of six aspects of competition are significant variables in explaining the use of NFPMs and AMATs. It is therefore an attempt to investigate possible determinants of the use of NFPMs and AMATs</i></p>
<p>684 - Managing Organisational Change in the Context of Arabian Business Culture Dirk Kalff, Gavin Lawrie, Mohammed H. Al-Yousif Practical Application</p>	<p><i>This paper examines the cultural issues impacting the implementation of change programmes within complex organisations operating in the Middle East, specifically within firms operating in the Gulf Cooperation Council countries. Using a case study describing the application of strategic Balanced Scorecard within a Saudi Arabian industrial group, the authors propose that the Balanced Scorecard brings particular benefits to Gulf organisations attempting to strengthen existing management culture in response to the region’s rapid social and economic change.</i></p>
<p>685 - Preference Clustering in Customer Satisfaction Measurement Jacob Eskildsen, Kai Kristensen Academic</p>	<p><i>The scope of this paper is to analyze whether or not segments with different customer preferences and customer satisfaction can be identified. This analysis is based on customer satisfaction data from the Danish banking industry from the years 2004 and 2005. The analysis showed that the preference structures in the segments are not the same for large and small banks indicating that these banks operate under slightly different market conditions.</i></p>
<p>686 - The Impact of the Institutional Setting of Health Provision on Network Performance – The Case of Managed Care Organizations in Hungary V. Bodnár, D. Dankó, Gy. Drótos, N. Kiss, M. Molnár , É. Révész Academic</p>	<p><i>Public management literature, using network theories, is basically directed at examining and explaining how policy networks work. Much less attention is paid to analyze local service provision networks. In our paper we explore how a network management model can be used to describe local health provision networks, how the performance of local networks is influenced by network characteristics, and how these local networks can be connected to policy networks. We use the framework created by Benson (1975, 1982) and ‘rediscovered’ by Hudson (2004) to examine the case of Hungarian HMO’s.</i></p>

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687 - The Role of Process Management in Improving the Performance of Higher Education Institutions – The Case of a Hungarian Development Project
Viktória Bodnár, Ph.D., Dávid Dankó, György Drótos, Ph.D., Norbert Kiss, László Kovács, Gergely Kovács, Éva Révész
Practical Application

Higher education institutions process huge amounts of information and maintain contact with their ‘customers’ (students) in their daily operations. While the ‘essence’ of core activities (teaching and research) cannot be process-controlled (only clan control can be adequate, according to Ouchi, 1979), lots of administrative and supporting tasks can be mapped by a process model in a service organisation like a HEI. It is widely debated (mainly in the quality management literature) whether universities can be controlled for processes and quality measurements at all (see, for example, Jauch–Orwig, 1997, and Willcocks et al., 1999), however, a large number of universities have already quality assurance systems in place. What makes this debate more polarised is that introducing process management techniques in Hungarian HEIs would certainly come with a BPR-approach.

688 - A Value Chain Approach to Marketing Performance Measurement
Lars Grønholdt, Anne Martensen
Academic

This paper presents an annotated literature review that provides the foundation for the development of a list of the most valuable marketing performance measures. These performance measures are selected on the basis of a number of criteria, for instance the measures need to occur frequently in literature, they must be valuable to most companies as well as they must have predictive power. The performance measures are systematised on the basis of the Marketing Value Chain, which is a conceptual framework linking marketing actions to financial results. Finally, the implications for marketing practice and future research are discussed.

689 - Implementing Measurement and Performance Development – What do They Look Like in Theory and Practice?
Elizabeth Houldsworth, Dilum Jirasinghe,
Academic

This paper considers performance management from the arena of HRM theory and practice. We advance the concepts of development vs measurement as a way of understanding different styles of performance management practice, rooted in the ideas of ‘hard’ and ‘soft’ HRM. In doing so we acknowledge the work of earlier researchers (Truss et al, 1997) who have suggest that ‘hard’ and ‘soft’ are useful theoretically, but are not evident in practice. The second half of the paper then describes two case studies to illustrate how these different philosophies might be seen to have been implemented in organisations as well as discussing some of the challenges associated with each example.

692 - Managing Physician Performance as if Your Health Depended Upon It
William F. Martin
Practical Application

This paper is written for the purpose of describing the evidence-based foundation which resulted in the design and delivery of the Managing Physician Performance course offered by The American College of Physician Executives over the past two decades. Since the development of this course, thousands of physician leaders have enrolled in this course to seek to increase the capacity of individual physicians and their respective

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	<p>organizations to deliver higher quality health care by enhancing the effectiveness of physician executives.</p>
<p>694 - Management Accounting Change Institutionalisation: An Old Institutional Economics Approach Reinaldo Guerreiro, Fábio Frezatti, Carlos Alberto Pereira Academic</p>	<p><i>This study aims to assess management-accounting institutionalisation, using Burns and Scapens (2000) model. The applied methodology was a case study in the commercial area of a Brazilian bank that carried out profound changes in its management accounting. The results of this case study reveals that, seven years after its inception, the management-accounting change process at Banco do Brasil can be said to have become institutionalised. In spite of the methodological limitation, the study indicates that the conceptual structure of Burns and Scapens (2000) model can be useful as an operational guideline to evaluate institutionalisation of management-accounting change.</i></p>
<p>695 - Drivers of Knowledge Work Productivity R. Antikainen Academic</p>	<p><i>The role of knowledge work has increased in all economies but the factors affecting its productivity have not been clearly discussed. In this paper the drivers of knowledge work productivity are discussed based on literature review and interviews of knowledge workers. Drivers are divided into three categories: (organisational and personal) input, process and output factors.</i></p>
<p>696 - Interpreting and Selecting Value and Performance Measurement Approaches: Implications for Measuring Intangibles and Intellectual Capital Patrick H. Sullivan, Rob Mclean Practical Application</p>	<p><i>Through the Value Measurement and Reporting Collaborative (VMRC), leading accounting institutes sought to develop principles and criteria for the evaluation of value measurement models. VMRCs initial publication on Re-discovering Measurement describes the inherent limitations of the traditional transaction-centric accounting paradigm, and analyses 85 approaches that have been developed in the past 15 years to provide measure value and/or performance in ways that extend beyond that paradigm. Based on this analysis, VMRC has developed criteria that can be used to comprehensively “profile” measurement approaches, interpret their results, and select the approach(es) most relevant to an organization’s needs. This analysis has important implications for how we measure intangibles and intellectual capital. Pat Sullivan is the Chair of ICMG Inc., a Palo Alto-based consulting firm that is a thought leader in Intellectual Capital Management. Rob McLean is President of MatrixLinks and an Associate of ICMG. Both act as expert resources to the VMRC Board of Directors.</i></p>
<p>697 - The Use of Performance Measurement in Six Sigma Projects: A Case Study Roberto Antonio Martins, Ricardo Coser Merquilhão, João Batista</p>	<p><i>The purpose of this paper is to investigate through a case study how the performance measurement exerts influence on the development as well as the achievements of Six Sigma projects. The research was carried out in a Brazilian company of the manufacturing</i></p>

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<p style="text-align: center;">Sobreira Leal Academic</p>	<p><i>sector. The main empirical findings show the role played by use of performance measurement changes during the definition of CTQ, choice of Six Sigma projects, and development through the application of DMAIC method. In addition the different purposes of using performance measurement can generate conflict. The performance measurement is key element of Six Sigma projects.</i></p>
<p style="text-align: center;">699 - The Experience of Implementing the Balanced Scorecard in the City of Reykjavik Snjólfur Ólafsson Practical Application</p>	<p><i>We describe the development and use of the Balanced Scorecard (BSC) in Reykjavik and draw some conclusions. The city council initiated a Management by Objectives approach in 1996 and introduced the BSC approach in 2001. At first, the BSC was used as a template for performance measurement but in 2003 strategy maps were developed to give the measurements more focus and relevance. The development and implementation has been slow and difficult in many ways and in 2005 an initiative was started as a final attempt to make the BSC an active performance management system. We explain what was causing the problems until 2005 and why it is likely that a successful implementation will be finished in 2007.</i></p>
<p style="text-align: center;">700 - The Balanced Scorecard: Does it Make Any Difference in the Strategic Development Process? E. Tapinos, R. G. Dyson, M. Meadows Academic</p>	<p><i>The Balanced Scorecard is one of most popular management tools whose use has been continuously increasing over the last two decades. Most of the research published is either recommendations for its effective design and implementation or case studies. This paper uses the results of a large scale survey, conducted to capture the current trends in the strategic development process, to examine the role of the balanced scorecard within the strategic development process. In the results we present a profile of the balanced scorecard users and test a series of hypothesis regarding its role within the strategic development process.</i></p>
<p style="text-align: center;">701 - Examining the Relationship Between Organisational Direction and Performance Measurement Within the Strategic Development Process E. Tapinos, R. G. Dyson, M. Meadows Academic</p>	<p><i>It is well established that organisational direction and performance measurement should be linked and aligned within the strategic development process. Even if this relationship is explicit in most of strategy development and performance measurement models, there is a distinct lack of empirical evidence on the interdependencies and interrelationship between them. We have investigated this gap in the literature with a multimethodological approach. This paper presents the results of twenty five follow-up interviews, which have been undertaken to validate the outcome of a large scale survey and to provide greater insights. The present paper concentrates its analysis on the three main determinants of their relationship.</i></p>

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702 - Sources of Organisational Advantage – The Intangibles That Count
S. J. Tanner
Academic

This paper reports the findings of a survey of Chief Executives from both public and private sector organisations, examining their perception of the value of particular intangible assets in creating a sustained organisational advantage. The work part replicated a previous study by Hall conducted in the early 90s. The results suggest that for private sector organisations, relational capital has greatest importance alongside people capital, whereas for public sector organisations relational capital has a less significant impact. Structural capital is not as highly rated as reputational or people capital. The research also concluded that reputational capital demands the highest replacement periods.

703 - Choice of Performance Measurement Indicators in Transitional Economy – An Empirical Analysis in Estonian Companies
Ü. Päril
Academic

The purpose of this survey is to investigate, how in transition economy management training and experience associated with the use of accounting information. The findings showed that managers consider monitoring financial accounting indicators very important. Managers of Estonian small and medium sized enterprises (SME), who have a financial background and who acquired their economic education more than ten years ago, choose the indicators by their cost effectiveness and timeliness, and they also use more sophisticated accounting systems.

704 - The Effects of Performance Measurement in New Product Development Projects
V. Chiesa, F. Frattini, V. Lazzarotti, R. Manzini
Practical Application

The paper discusses the results of an exploratory research on the effects of the use of a Performance Measurement System (PMS) in New Product Development (NPD) projects. With this purpose, the NPD program for a military aircraft trainer undertaken by a leading Italian aerospace company was in-depth investigated. The study demonstrates that different types of effects can be identified (expected vs. unexpected, positive vs. negative, meta-level vs. specific-level); moreover, four kinds of effect analysis should be performed, each focusing on a specific category of effects. These analyses differ in the type of involved competencies and influence the evolution and re-design of the PMS.

705 - Conceptual Model of a Web-Based Design Performance Measurement and Management System
Yuanyuan Yin, Shengfeng Qin, Ray Holland
Academic

This paper presents a conceptual model for a web-based product design development performance measurement and management system for collaborative product design and development. It allows all involved design participants to measure work performance at any time during the product development process. The model was developed from role-based task analysis and industrial surveys. Universal Modelling Language (UML) method was used to model the system. It has been evaluated by a variety of users for implementing in a web-based prototype software system for measuring design aspects throughout the whole product design development

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	<p>process.</p>
<p>706 - A Generic Framework for Performance Indicator System Methods M. Ravelomanantsoa, Y. Ducq, B. Vallespir Academic</p>	<p><i>The domain of Performance Measurement has been investigated for more than twenty years to lead to a lot of methods all around the world, developed either by researchers or more pragmatically by practitioners, in order to define and implement indicators. Several studies have been done to compare some of these methods. The objective of this paper is go further in the comparison in order to define a generic framework that could help to detect what should contain a generic method for Performance Indicator System definition and implementation and what is the knowledge that must be included in this kind of method to be more efficient.</i></p>
<p>707 - An Audit Tool for Assessing Design Performance in SMEs Dr James Moultrie Academic</p>	<p><i>Good design is widely acknowledged as being good for business. This paper describes the development of a design audit tool, following an action research approach. The design audit enables a cross functional team to assess the design of their products and the effectiveness of their process – as a precursor to instigating improvement initiatives. The audit tool has been demonstrated to be useful, usable, and robust.</i></p>
<p>708 - Design Score Board: Assessing National Design Performance Dr James Moultrie, Finbarr Livesey, Dr Jillian Macbryde, Dr Veronica Martinez, Professor Steve Evans, Professor Bill Nixon, Professor Kul Pawar, Dr Johann Riedel, Dr Peter Demian Academic</p>	<p><i>It is evident that design is essential for both firm and national success. However, there is currently no reliable mechanism for evaluating design performance at a national level. Existing performance measurement schemes focus on innovation, R&D and value added, with little ongoing collection and interpretation of the status of design. This paper summarises these existing schemes and proposes the need for a similar scheme for design. This work is part of a continuing series of research by the Design Performance Cluster, which was funded through the Design for the 21st Century initiative, supported by EPSRC/ AHRC.</i></p>
<p>709 - Design Score Card: Measuring Design Performance at the Firm Level Dr Jillian Macbryde, Professor A Duffy, Dr Veronica Martinez, Professor Steve Evans, Dr James Moultrie, Professor Bill Nixon, Professor Kul Pawar, Dr Johann Riedel, Dr Peter Demian Academic</p>	<p><i>This paper reports on the current state of the art with respect to measuring design performance at the level of the firm. The need for an effective design performance measurement system, which aligns design activities with the firm's goals will be shown. The paper goes on to explore the potential for a design "scorecard" to be used as a performance measurement tool to aid management of the firm's design activities. This work is part of a continuing series of research by the Design Performance Cluster, which was funded through the Design for the 21st Century initiative, supported by EPSRC/ AHRC.</i></p>

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712 - Managing for Sustained Growth and Profitability Under Rapid Change and Uncertainty:
Juergen H. Daum
Practical Application

An intangibles-based view on enterprise and ecosystem management makes the value creation economics of today's enterprises transparent – in contrast to traditional financial control-based approaches. It especially provides useful information for managers and support them in managing for 'Sustained Growth And Profitability Under Rapid Change And Uncertainty'. Based on some practical examples, the author demonstrates in this article how an intangibles-based view can help to answer the following questions from a managerial perspective: How to best balance growth and profitability? How to manage for sustained growth and profitability? How to manage for sustained growth and profitability under rapid change and uncertainty?

713 - The Impact of Organizational Factors and Performance Management Design on Network Performance
Pd Dr. Klaus Moeller, Prof. Dr. Péter Horváth
Academic

The paper develops a performance management concept for networks and tests its performance relevance within a large scale, questionnaire based em-pirical study in Germany. Using structural equation modelling it could be shown among others that the evaluation function in network performance management plays a crucial role for network success. Additionally, the strategic relevance of the network partners was outstandingly significant in this study. In sum, we could verify the importance of the performance management system (i.e. the four design factors selection, allocation, regulation and evaluation) explaining about half of the network's performance.

714 - A Three Dimensional Performance Measurement Framework Based on Customers, Management and Employees Satisfactions
Dr. Maged S. Morcos
Academic

This paper suggests the design and implementation of a three dimensional performance measurement framework based on satisfying the needs of employees (Es), management team (Ms) as the internal dimensions and the customers (Cs) as the external dimension of the organisation. It aims to design a performance measurement tool that transforms qualitative satisfaction factors and measures into quantitative indicators that produces numerical satisfaction values of the three dimensions. The traditional management grid approach with enhancement is used with the efficient frontier analysis to select the efficient satisfaction performance package (Es%, Ms%, Cs%) needed to achieve a pursued overall high performance value.

715 - Without Measuring it You Can Manage it: Indications From a High-Performing Energy Supplier
M. Sobotka, K. Platts, M. Pavey
Academic

Our study questions the assumption that the more comprehensive performance measurement is, the better the performance. This paper offers an overview of the existing literature on the applications of performance measurement and the roles it may fulfil. It presents insight from a single case study of a leading German energy utility company where the desired operational excellence is achieved through corporate relations based on trust responsibility and mutual aid We discuss the

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	<p><i>observed factors such as leadership, structure and culture which may interplay with performance measurement and allow companies to achieve superior performance.</i></p>
<p>716 - The Measurement of the Degree of Corporate Social Responsibility of a Firm Ilaria Bissacco Cristina Spinelli, Paolo Maccarrone Academic</p>	<p><i>This paper deals with the controversial issue of the congruence/incongruence between the CSR strategies and programs carried out by companies and the expectations of the different categories of stakeholders. In particular, the problem is addressed by comparing the structure of the main ethical rating systems with that of the “internal” CSR performance measurement systems implemented by a sample of large multinational firms operating in different industries. The early results show a great heterogeneity in the set of metrics used. In particular, ethical rating systems seems to be quite inadequate to measure to degree of social responsibility of a company.</i></p>
<p>717 - Reviewing Performance Management: An Organisational Health Check William Barney, Stanley Dransfield Practical Application</p>	<p><i>As a mechanism for strategic and operational control, many organisations in both public and private sectors have successfully adopted structured performance management systems such as balanced scorecards (Rigby, 2005). However, evidence suggests a significant number of organisations fail to completely realise the intended benefits, impacts and outcomes from such systems (Schniederman, 1999). Development of such systems typically involves substantial resource investments, and carries with it a significant opportunity costs. Consequently there is growing interest in development of techniques for auditing and reviewing an organisation’s ability to make use of either existing or planned performance management systems, so as to better understand possible reasons for failures. Such diagnostic information would be useful both prior to the design of such a system, to ensure the right design approaches are adopted, and following a development to identify obstacles that would prevent the achievement of the required levels of success. The Organisational Health Check (OHC) is being developed to provide such an audit / review methodology.</i></p>
<p>718 - Organisational Performance Management in a UK Insurance Firm: A Case Study in Aligning Individual Performance Management Practices With Business Strategy Ian Cobbold, Gavin Lawrie Practical Application</p>	<p><i>This case study uses material drawn from project work undertaken for a UK based financial services firm to look at two issues related to the performance management of individuals. Firstly, the need for a personal goal setting process that is both economical to deploy and effective in triggering changes in the behaviour of individuals. Secondly, the related need for the content and process of this type of system to be closely aligned to the overall aims of the organisation.</i></p>

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719 - Managing the Life Cycle of Improvement Systems: A Case Study in the Belgian Armed Forces
Geert Letens, Eileen M. Van Aken,
Ph.D.
Practical Application

This paper presents an approach for managing the life cycle of improvement systems in organizations pursuing integrated organizational change. Key to this approach is the use of an improvement scorecard that promotes ownership and entrepreneurship within the organizational units being assessed, while laying the foundation for learning and knowledge sharing in the higher-level organization. The application within the Communication and Information Systems Competence Centre of the Belgian Armed Forces illustrates that the approach can be particularly beneficial in providing guidance and actionable feedback for organizations with lower improvement maturity.

720 - A Simulation Model for the New Product Development Process
A. Claudio Garavelli, Fulvio Iavernaro, Barbara Scozzi
Academic

New product development (NPD) has become an important leverage for company competitiveness (Ernst, 2002; McGrath et al., 1992; Schoohoven et al., 1990). Being able to innovate and introduce frequent new products with short time to market allows to gain competitive advantage and market share. Thus, reducing NPD process lead-time become a primary objective for performance improvement. In this paper, based on (Bhuiyan et al., 2004), we develop and simulate a NPD process model. The paper goal is to assess to what extent and under which conditions process activity overlapping and functional interaction affect the process lead-time and efforts. The study outcomes show that by changing the overlap ratio and the functional interaction, the process lead-time and efforts sensibly.

722 - Performance Measurement in Construction Research and Development
U. Kulatunga, R. D. G. Amaratunga,
R. Haigh
Academic

Research and Development (R&D) plays a vital role within the construction industry in addressing the stakeholder needs and meeting the challenges placed upon it. However, there are number of issues which have negatively affected the UK construction R&D base, particularly the main construction research provider: the Universities. These issues demand the measurement of performance to improve the efficiency and effectiveness of construction R&D activities. This paper discusses how performance measurement (PM) could add value to construction R&D activities and presents the use of case study approach for the development of a PM framework.

724 - The Impact of the Nature and Characteristics of Organizations on Non-Financial Performance Measurement: The Case of Islamic Banking
Dr Ehab K. A. Mohamed
Academic

This study investigates the impact of the nature and characteristics of organizations on management accounting practices, in particular on non-financial performance measurement practices in the Islamic banking sector. Several Banks have been selected in the Gulf Cooperation Council (GCC) countries in order to explore the impact of the nature and characteristics of these institutions on management accounting practices. This study reveals that the nature and characteristics of organization have a great impact on performance

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	<p>measurement practices.</p>
<p>726 - Managing and Measuring the Intangibles to Tangibles Value Flows and Conversion Process. Romanian Space Agency Case Study Liviu Cotoră Practical Application</p>	<p><i>Converting knowledge or competency into long-term business value is, in practice, a far more difficult process than in theory. While developing and implementing knowledge or competence management solutions, companies experience difficulties in measuring the contribution of their intangibles to business results and, what is more critical, companies fail in their efforts to reproduce the conditions and the processes that have unlocked the value creation potential of their intangibles. Building and maintaining large skills inventories, designing complex intranets, keeping large terabytes of knowledge or implementing performing document-management systems and other technology solutions, do not necessarily lead to an improved cash flow stream. It simply brings inefficiency and leads to limited value creation as most of these solutions fail to identify the value-creation patterns or prove the link with organisational performance. What value-contributions bring these terabytes of information to the production process, or to the sales process or to a cash flow stream? Under the power of a Case Study, our presentation will describe an approach and a methodology to identify and record the value flows (value-adding sequences) among knowledge, competencies, partnerships and operational systems and processes, and to measure their contributions to the overall corporate value creation process.</i></p>
<p>727 - Process Management and Product Innovation: Uncovering the Hidden Paradox Laird A. Burns, Steven A. Melnyk , George A. Zsidisin, John D. Hanson Academic</p>	<p><i>This paper explores the challenges facing an organization trying to shift its strategic focus from process management/lean practices to radical innovation. Using data from a detailed case study of a large multinational home supplies corporation, the study explores factors that influence this transition. Using data extracted from multiple levels (corporate, group, division, and plant), the results indicate that successful process management fosters capabilities that are inconsistent with the capability requirements for successful radical innovation. This phenomenon is explained by drawing on two theories: agency theory and institutional theory. The paper concludes with a theoretical discussion of the outcome implications.</i></p>
<p>729 - Focusing Manufacturing Systems on Target Markets Using Cognitive Maps and Performance Measurement J. Macedo</p>	<p><i>The strategy maps included in the balanced scorecard management system are not supported by quantitative models. Hence, there is a risk that the improvements obtained with these maps do not reach the stakeholders' goals. This paper presents a new approach that models</i></p>

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<p>Academic</p>	<p><i>the strategy maps as fuzzy cognitive maps. A hierarchy of two prescriptive models is used: a goal-seeking model and a tactical model. The first model prescribes the target values for the process variables that drive the product performance. The second model prescribes the evolution of these variables so that the investments required by their improvements are balanced with the costs of the poor performance of the product. The suggested approach is applied to improve the set-up operations of a sterilizer to reduce the gap between the current performance and the target market desired performance of pharmaceuticals.</i></p>
<p>731 - Manufacturing Systems and the Human Performance Fallacy Dr. Steve Mason, Prof. Tim Baines, Dr. Mark Wilcox Academic</p>	<p><i>It is often assumed that workers are one of the main causes of low efficiency and poor quality in manufacturing systems. This assumption arises from a variety of sources, including theory, practice and a management paradigm of 'command and control'. A recent study of a very large scale manufacturing facility comprising a mixture of automated and manual tasks has shown that, contrary to some theoretical studies, the impact of variations in worker performance on the system as a whole is relatively small, of the order of 1% of throughput. In comparison, the effect of unplanned machine downtime, part shortages and other disturbances reduce system performance by around a third. Simulation studies have shown that the relative magnitude of the impact of worker performance variation is an emergent property dependent on system parameters, rather than worker performance. The major implication of this for practitioners is that the causes of disruption and their systemic impact should be carefully assessed before intervening to 'improve' worker performance.</i></p>
<p>734 - Business Performance Measures: A Study With Reference to Companies In India@ Dr Keyur Thaker, Dr Shailesh Gandhi Practical Application</p>	<p><i>Companies use performance measures for variety of purpose but chiefly for strategy implementation to achieving corporate goals. This study examines business performance measurement practices across large size companies in India. Based on the survey of 38 Chief Financial officers this study depicts some interesting aspects of performance measures, in stint of management control in India viz. purposes, awareness, usage, disclosure and asymmetry across importance and measurement satisfaction and difficulty. The first of its kind study in Indian offers useful background for further studies in BPM & compares and contrasts in various aspects with that of Europe and US.</i></p>
<p>735 - The Influence of Strategy on the Development of Balanced Scorecards Maurice Gosselin</p>	<p><i>The performance measurement literature suggests that strategy influences to which extent an organization implements and uses balanced scorecards and the types of measures that will be considered relevant types of</i></p>

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<p>Academic</p>	<p><i>measures that are used in an organizations. To conduct this investigation, a questionnaire was sent to a random sample of 200 manufacturing organizations in Canada. The results suggest that organizations with a prospector strategy implement balanced scorecards, rely to a greater extent on a mix of financial and non financial measures and use in comparison to analyzers more customer, product and production measures.</i></p>
<p>737 - Measuring the Quality of Local Governance: A Case Study of Public Services in Carrick, UK Tony Bovaird And Elke Loeffler Academic</p>	<p><i>This paper reports the results of an intensive study of the quality of local governance in a case study area in the UK. It demonstrates how the concept of public governance can be operationalised in such a way that the performance of local agencies against public governance criteria can be assessed and their interaction can be modelled. It also reports the results emerging from a pilot application of this methodology.</i></p>
<p>738 - Enterprise Modelling and Performance Optimisation for SMEs (EMPOSME) Ann Sheahan, Con Sheahan Practical Application</p>	<p><i>This paper describes the work-to-date of the EMPOSME project which is funded by the EU under its Framework 6 (FP6) program. In FP6 CRAFT projects, a number of Small to Medium Sized Enterprises (SMEs), from two or more different EU countries, perform R&D in co-operation with research centres and universities (RTDs). The objective of the EMPOSME project is to develop and implement a software tool (EMPOSME) to assist decision makers make multi-faceted decisions in the manufacturing supply-chain. It will enable them to plan and deploy multiple enterprise resources (eg material, machines, people), so that in combination, they optimise the performance of their enterprise against a set of strategic Key Performance Indicators (KPIs). These operational KPIs are aligned to their strategic goals. This project focuses on small to medium sized firms (SMEs) that operate on an Engineer to Order (ETO) or Make to Order (MTO) basis, i.e. they manufacture products which are produced to customer demand and often require customisation. The product life cycle is complex and production processes need to be flexible.</i></p>
<p>739 - State of Performance Measurement Practice in SMEs Cáthál Wilson, Con Sheahan Academic</p>	<p><i>The globalisation of markets has changed the conditions of competition and obliges enterprises to alter the foundations of their competitiveness and economic performance [Hudson et al, 2001]. The time to react to situations, identify problems and formulate solutions is decreasing and the order velocity required by customers is increasing. PMs (Performance Measurements) need to become an essential part of monitoring and maintaining the production process to improve and maintain competitive advantage achieved within plants. This paper attempts to identify the barriers for the successful introduction of PM's within a sample of European and US companies.</i></p>

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740 - Manufacturing System Effectiveness Measurement
Jose Antonio Heredia Álvaro,
Antonio Estruch Ivars
Academic

Purpose: To develop a method to estimate the manufacturing system effectiveness based on the Overall Equipment Effectiveness (OEE) metric. Design/methodology/approach: The approach is to compute the manufacturing system effectiveness during a period of time aggregating the effectiveness with which each batch has been produced. Using mathematical deduction methodology a performance measure is elaborated starting from a simple case "One machine, one type of product" and continuing until a "manufacturing network". The approach to measure the performance of a factory has been validated with a real case.

Findings: The effectiveness for each batch is determined by the operations with minimum processing rate and maximum loading time.

Research limitations/implications: the data gathering and processing requirements for this measure are more complex than common practice; as a consequence the use of an adequately designed information system becomes a necessity.

Originality/value: A literature survey indicates that, at present, there is no single, well defined, proven manufacturing system effectiveness measure. It is showed, with examples, that other previously proposed measurement methods are particular cases of this, more generic, approach.

741 - State Audit of Public Private Partnerships in Australia: A Lack of Public Accountability?
Linda English, James Guthrie
Academic

This paper tests the proposition that Departments of Treasury are the sole evaluators of PPPs by mapping the focus, extent and patterning of state audit of PPPs in Australia in a defined period. Twenty-two key elements steering PPP development, implementation, management and public accountability disclosure are identified. PPP audit is mapped against these elements to determine the focus, extent and patterning of PPP audits. The contested nature of performance audit is confirmed. Not all PPP projects appear to have been subject to systematic auditing by auditors-general. Consequently, public accountability is weakened by a diffusion of disclosure, including disclosures by auditors-general.

742 - Dynamic Relationship Between Management Control Systems and Strategy and its Impact on Organisational Performance Management: A Case Study
D. Peljhan, M. Tekavčič
Academic

In the paper, we study the dynamic relationship between management control systems (MCS) and strategy and its impact on organisational performance management in a particular company. The relationship is studied from a contingency theory point of view. The study's basic conclusion is that MCS influence the implementation and monitoring of strategies, providing feedback for learning and information to be used interactively to formulate strategy further. Moreover this study ungrades the

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	<p><i>existing theory in that it not only establishes a relationship between strategy and MCS variables, but also considers how this relationship impacts the organisational performance.</i></p>
<p>744 - Exploring the Missing Link: Rewards and the Performance Measurement System Clive R. Emmanuel, George Kominis, Sergeja Slapnicar Academic</p>	<p><i>Motivation engendered by the performance measurement system is generally accepted as critical in gaining middle management commitment to enterprise goals. How this is accomplished in practice remains opaque, not least because rewards associated with performance can be subject to a wide variety of influences. Employing an extended expectancy-valence theoretical framework, data from an Eastern European enterprise is analysed using structural equation modelling. The perceptions of these middle managers suggest attainability of targets has a positive direct effect on motivation. Intrinsic rewards display a similar association but extrinsic rewards fail to influence motivation.</i></p>
<p>746 - Evaluation of the Aricon NPD Cooperation Readiness Assessment Approach in Industrial Cases Johann C.K.H. Riedel, Kulwant S. Pawar Academic</p>	<p><i>The emergence of the so-called digital and knowledge economy has had significant impact on the way firms design and develop new products. More and more firms are entering into alliances (Virtual Enterprises, VE) with collaborators during the NPD process so as to enhance their efficiency and competitiveness. There is a need for establishing a common and recognised methodology to evaluate and qualify companies' cooperation ability and attitude. The ARICON project aimed at defining a cooperation readiness assessment methodology, suitable for identifying companies who are actually capable of starting effective cooperation before they enter virtual enterprises. In the paper the assessment process is detailed. The industrial pilot cases used for testing the prototype assessment method and tools are presented, along with a detailed example assessment of one company. The management and strategic implications of the assessment result are discussed.</i></p>
<p>747 - Challenging Conventional Wisdom Related to Defining Business Metrics: A Behavioral Approach Frank A. Buytendijk Practical Application</p>	<p><i>Measurement drives behavior. Unfortunately, most performance measurement initiatives overlook this fact. Implementations are performed top-down with strategy as the starting point. There needs to be a better understanding of the cultural context of the metrics (What is driving the behaviors?) and a better understanding of what metrics to define (How do we drive the right behaviors through measurement?). This paper explores the notion of a context-based approach to performance metrics—by examining an organization's negative values—and the notion of a content-based approach—by introducing the concept of business interface metrics.</i></p>

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748 - Measuring Performance Perceptions With Likert-Type Items: The Influence of Culture-Based Response Bias
R. Culpepper, L. Zhao, C. Lowery
Academic

Some researchers claim that extreme response bias makes surveys of Chinese study samples difficult to compare with those of American or Canadian samples. Others claim that Confucian modesty norms lead to a cautious or midpoint bias for Chinese samples. This study examined whether the type of bias manifested depends on the nature of the survey items used. We analyzed response patterns for the three types of item ratings employing MANOVA and a sample of 199 American and Chinese managers. Items focused on factual information or nomothetic propositions were expected to elicit extreme response bias. We predicted that extreme response would not be manifest in idiographic ratings. Rather, we expected idiographic items to evoke a midpoint bias. Results were consistent with these expectations. A review of previous work employing samples from historically Confucian cultures demonstrated a link between item type employed and the type of bias reported in respective studies.

749 - Viability as a Basis for Performance Measurement
Patrick Hoverstadt, Ian Kendrick,
Steve Morlidge
Practical Application

Conventional approaches to Performance Measurement have been based on a mechanistic 'target-plan-variance' model that was introduced into mainstream management practice in the 1950's. It has been subject to criticism from within both the academic and practitioners community over the last 50 years but has proved remarkably resistant to change. Systems ideas, particularly those emanating in the field of Cybernetics, have not been successfully applied in this field because, it is argued, the concepts have been misunderstood and falsely blamed for the perceived failings of conventional practice. Some ways in which Cybernetic models could be used to help design performance management systems are discussed and a case made for more research and experimentation in this field.

751 - Interpreting the Balanced Scorecard: An Investigation into Performance Analysis and Bias
Vicky Rich
Academic

The way managers analyse performance measures and arrive at a decision may be influenced by their own cognitive limitations and biased through past experiences and preconceptions. Experimental results suggest that managers do not rate the importance of individual performance measures equally, and at the outset of the decision process often rely on simplifying strategies to help process the information in the time available. Further analysis indicates that the decision approaches used were in themselves biased, and that decision outcomes were not always related to the factors which managers thought were important at the beginning of the process.

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754 - Performance Management as a Political Instrument: The Case of China

H. S. Chan, J. Gao
Academic

Based on our analysis of official documents and fieldwork survey, this paper illustrates that performance management could serve as a political instrument in a particular system such as the People's Republic of China. Favorable conditions in western societies to implement performance management are absent in China. Under the Party dictatorship, there are no strong and independent performance monitoring institutions; Emphasis on political favoritism comes from China's long history of blending politics and administration; Citizens seldom participate in measuring government performance since power is centralized in the Party. Therefore, performance management in China is merely a matter of political compliance auditing.