

# The Hoshin Kanri Bibliography

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## Guide

This bibliography is in four parts: dedicated books (16 titles), journal articles and occasional papers (91), chapters/sections in books (23), and selected conference papers (10). Many consultancy web sites have explanations and concepts; these are omitted here. The period 1990-1995 saw the publication of six books (a period towards the end of the high point of TQM adoption in the West) and four in 2006-2010 (a period of popularity for 6-sigma and increasing general interest in lean production outside the automobile sector). Much of the explanation and discussion continues to fall within the quality management and operations literature, rather than in that of strategy and strategic management.

### Dedicated Hoshin Kanri Books

**Akao Y. (1991) (ed.), *Hoshin Kanri: Policy Deployment for Successful TQM*, (originally published as *Hoshin Kanri katsuyo no jissai*, 1988), Cambridge MA: Productivity Press. 207 pps.**

Contributors: Akao Y., Imai T., Koura K., Noda Y., Nomi T., Ohta A., Tamura S.

Translated by Glenn Mazure, and an Introduction by Greg Watson (Compaq Computer Corp.) who uses a model adopted by GOAL/QPC, which Watson states is a simplification of the methodology in the book.

Chapters: (1) TQM and Hoshin Kanri (Akao), (2) Promotion of Hoshin Kanri (Nomi), (3) Control Items for Hoshin Kanri (Koura), (4) Hoshin Kanri with Daily Control, Cross-functional Management, and Work Plans (Koura), (5) Implementation of Hoshin Kanri: Case studies (various), (6) Hoshin Kanri as a Part of TQM: A roundtable discussion: this is a previous article by Akao Y., Koura K. and Nomi T. (1986), Hoshin Kanri as a Part of TQC, Japanese journal, *Standardization and QC*.

Appendices: History of Hoshin Kanri, Chronology of Hoshin Kanri, Management Strategies.

Bibliography, Notes about the author/Editor-in-Chief.

This is the seminal text, translated from the Japanese with an introductory chapter from Greg Watson (Compaq Computer), and involving Japanese academic authors. It is technical and a difficult introduction, but it is full of detailed insights. The ten step approach for deploying policy is: (1) establish company motto (purpose statements), quality (customer) policy, and promotion (i.e. how to carry it out) plan; (2) devise long and medium term management strategies; (3) collect and analyse information to determine longer term policies; (4) plan target (the what) and means (the hows); (5) set control items and prepare a control item list (the determination of annual targets and means); (6) deploy the policy, deploy the control items; (7) implement the policy plan (understanding targets how to manage them, catchball); (8) check the results of implementation (the daily management of targets/means); (9) prepare status reports for implementing hoshin kanri (periodic reviews by senior management, including annual diagnosis). A diagrammatic definition of hoshin kanri is given by Nomi in terms of the stages and the PDCA cycle for its overall management, and a CAPD cycle for its overall annual management of annual priorities; see 22-23.

**Babich P. (2005), *Hoshin Handbook: Chart the Course for Your Organization* (3<sup>rd</sup> edition), Poway CA: Total Quality Engineering. 143 pps.**

Chapters (1996, 2<sup>nd</sup> edit.): Preface (by Bob King), (1) A Personal History, (2) Hoshin Overview, (3) Mission and Key Variables, (4) Measuring Performance, (5) Vision and Breakthrough Plans, (6) Periodic Review, (7) Barriers, Mistakes, and Implementation Tips, (8) Hoshin Planning Forms, (9) Hoshin Plan Examples

Appendices: Hoshin Kanri and the Balanced Scorecard, Hoshin Kanri and ISO 9000 – 2000, Hoshin Kanri and Six Sigma, Hoshin Planning Software, Measuring Hoshin Maturity, Development of Department Values, Bibliography

First published in 1996, a consultant's book, it is written by someone who helped facilitate hoshin planning at HP, and is published by a leading web based consultancy on total quality that supplies good notes about hoshin kanri. A split is recognised between the vital few hoshins (and hoshin plans), and the business fundamentals (business fundamentals plans - daily control is the foundation for hoshin). Examples include Great Northern (insurance) and Rockford Int..

**Bechtell M. L (1995), *The Management Compass: Steering the Corporation Using Hoshin Planning*, New York NY: American Management Association. 157 pps.**

Chapters: Introduction: An Overview of Hoshin Management, (1) Formulate the Challenge: Align the Organisation's Goals with Changes in the Environment, (2) Sharpen the Focus: Select the Vital Few breakthrough objectives, (3) Create a Company-wide Plan of Attack: Align People, activities, and Resources Behind Those Things that Matter Most to the Organisation, (4) Control the Plan: Align Daily Activity with the Plan, (5) Conduct the Hoshin Audit: Channel Local Lessons Upward to Inform Future Plans, (6) Create an Integrated Quality Management System.

Appendices: Statistical Tools, Management and Planning Tools

A consultant's briefing for members of the American Management Association. The reference to compass in the title refers to the importance of aligning everyone through strategic priorities to the organization's overall direction – like a ship tossed about in a rough sea and always needing to be brought about back on its destination. Hoshin kanri is presented as a management system, without getting lost in the detail quality and lean management. It involved assistance from practitioners in health, as well as Danaher, Intel, Hewlett-Packard, Procter and Gamble, Texas Instruments, Teradyne, and Zytec.

**Caley D. (2011), *X Matrix: Strategy Deployment and Execution Process for Breakthrough Business Performance*, Lulu.**

**Colletti J. (1995), *A Field Guide to Focused Planning: Hoshin Kanri American Style*, East Granby CO: Woodledge Group. (second edition). 234 pps.**

Chapters: Section 1 (1) Rationale Behind "Focused Planning", (2) Evolution of Hoshin, (3) The Tools of Focused Planning, (4) An Overview of Focused Planning, (5) Focused Planning Characteristics; Section 2 (6) Focused Plan Generation Sequence (detail), (7) Focused Plan Deployment Sequence (Detail), (8) Focused Plan Review Sequence (Detail), (9) Case Study Example (of a fictitious hospital), (10) Examples From (American) practitioners, (11) Detail on Tool Construction, (12) References/Selected Reading.

A US consultant's publication (first edition 1994) with much detail about quality tools presented in a roll binder in half-manual form. Colletti visited six Japanese companies in 1991 with Bob King and the GOAL/QPC study team. Examples include materials from a variety of practitioners. The idea of focussed planning is stated to be an American style of hoshin kanri.

**Colletti J. (2013), *The Hoshin Kanri Memory Jogger: Process, Tools, and Methodology for Successful Strategic Planning*, Salem NH: GOAL/QPC. 132 pps.**

Chapters: Introduction, Part I – The Hoshin Kanri Sequences (1) Creation Sequence, (2) Deployment and Dialogue Sequence, (3) Review Sequence: Monitoring, Modification, and Year II Upgrades, - Part II

Hoshin Kanri: Background and Advanced Detail (4) Introduction to Hoshin Kanri, (5) Pitfalls and Temptations, (5) Other Options and Tools.

Appendix: Sample Hoshin Charts and Tool Illustrations.

A small ring-bound guide that will fit into a pocket for quick reference on the job; it provides an excellent summary of the ground and some associated tools. The only pocket guide.

**Collins B. and Hige E. (1993), *Management by Policy: How companies focus their total quality efforts to achieve competitive advantage*, Milwaukee WI: American Society for Quality Control Quality (ASQC) Press. 194 pps.**

Chapters: (1) Total Quality - The context of Management by Policy, (2) Implementing Total Quality, (3) Elements of Management by Policy, (4) Implementing Policy, (5) Implementing a Management by Policy System, (6) Tapping into the Spirit of Management by Policy.

Appendices: Seven basic process improvement tools; Seven new management planning tools  
Glossary of terms, Bibliography

The Management by Policy (of which policy Deployment is a part) is contrasted with Management By Objectives. There is a strong total quality influence (the publisher is a quality management society), and it stresses the important of separating the vital few from the trivial many. While the book refers to the name, hoshin kanri, only in the glossary as the Japanese term, the book is a clear exposition of the approach. A new combination of old and new strategic planning is illustrated.

**Cowley M. and Domb E. (1997), *Beyond Strategic Vision: Effective Corporate Action with Hoshin Planning*, BOSTON MA: Butterworth-Heinemann. [Methuen MA: GOAL/QPC.] 245 pps.**

Chapters: (1) Introduction: What is Planning and Why Do We Do It?, (2) Problems with planning, (3) Hoshin Planning Overview, (4) Preparation, (5) Analysing the Present Situation, (6) The Strategic Vision, (7) Setting the Breakthrough Objectives, (8) Developing the High-Level Strategies, (9) Deployment of the First-Level Strategies (Catchball), (10) Implementation Plans and Final Plan Review, (11) Implementation and Review, (12) How to Introduce the Strategic Management System into Your Organisation, (13) The Tools of Hoshin, (14) Essential Techniques for Strategic Planning.

A book written by consultants that emphasizes planning, also vision (example of North Island Federal Credit Union) and considers hoshin kanri with its emphasis on deployment at two levels and the importance of review. The tools and techniques, including QFD, are covered separately.

**Cudney E. A. (2009), *Using Hoshin Kanri to Improve the Value Stream*, London: Productivity Press. 160 pps. with CD.**

Chapters: Part I – Lean as a Competitive Strategy (1) Lean Philosophy as an Enterprise Solution, (2) case Study: An Introduction to Carjo Manufacturing Co., Part II – Strategic Thinking (3) Integrating Strategic Goals, (4) Hoshin Methods, (5) Case Study: Implementing {Policy deployment at Carjo manufacturing Co., Part III – Understanding Value (6) The Basics of Value Stream Mapping, (7) Case Study: Creating Current-State Maps of Three Carlo Manufacturing Facilities, (8) Case Study: Identifying Improvement Opportunities at Carjo Manufacturing Co., Part IV – Improve (9) Systems Thinking and Theory of Constraints, (10) Tool Selection, (11) Using Six Sigma to Improve Quality, (12) Using 5S to Create a Clean and Manageable Work Environment, (13) Using Sing-Minute Exchange of Dies to Reduce Setup Time, (14) Standard Work: Documenting the Interaction Between People and Their Environment, (15) Mistake Proofing (aka Poka-Yoke): Preventing Defects by Monitoring Process Conditions an Correcting Errors at the Source, Part V – Plan and development (16) Case Study: Daily Management and Action Plans at Carjo Manufacturing Co.  
Conclusion and Lean Glossary.

A how-to book about lean management, using a made-up case, the fictitious Carjo Manufacturing. It uses the name, Policy Deployment, and presents it in terms of two levels: strategic planning and daily management. Lean approaches such as value stream mapping, systems thinking the theory of constraints, and other chapters are devoted to quality tools. There is not much hoshin kanri in this.

**Dennis P. (2006), *Getting the Right Things Done: A Leader's Guide to Planning and Execution*, Cambridge MA: The Lean Enterprise Institute.**

Chapters: (1) Getting Started, (2) Mental Models, (3) Management Systems, (4) Understanding Our Mess, (5) Plan – Persuasive Stories, (6) Do – Deploying Our Plan, (7) Check – The Ugly Duckling, (8) Adjust – The Great Detective, (9) Improving Our System

Appendices: Better Approach to Planning and Execution, Atlas Industries A3 Strategies, Templates.

A guide written by an ex-Toyota manager, rather more than a manual it uses an imaginary company and people to illustrate issues associated with the adoption of hoshin kanri (called here strategy deployment). The personalised style may not be to everybody's taste and there is no index. The emphasis is on visual management (A3), PDCA in a lean environment, and the need to focus, align, and make a quick response.

**Eureka W. E. and Ryan N. E. (1990), *The Process-Driven Business: Managerial Perspectives on Policy Management*, Dearborn MI: American Supplier Institute. 138 pps.**

Chapters: (1) Policy Management: The Four W's, (2) The Fundamentals of Policy Management, (3) The policy Management Difference, (4) Policy Management in Action: Florida Power and Light, (5) More Policy Management Applications, (6) Putting Policy Management to Work.

Appendices: Policy Management Support Tools, Quality Function Deployment

Uses the name Policy Management, presents the stages and the importance of PDCA, catchball, the president's audit. It is contrasted with MBO, and it includes a case study of Florida Power & Light., as well a comparison of The Budd Co., and Hewlett-Packard. An easy book to read.

**GOAL/QPC (1989), *Hoshin Planning: A Planning System for Implementing Total Quality Management (TQM)*, research report 89-10- 03, Methuen MA: GOAL/QPC. 52 pps.**

Chapters: (1) Hoshin Planning Overview, (2) History of Hoshin Planning in Japan and America, (3) What is Hoshin Planning? (4) Key Steps, Elements, and Tools of Hoshin Planning, (5) Benefits of Hoshin Planning, (6) How Can Hoshin Planning Be Implemented? (7) Prerequisites for Successful Hoshin Planning Implementation, (8)

Conclusions

Appendices: Generic US Implementation Strategy, Alternate Four Phased Implementation Model, Florida Power and Light's Policy Deployment Process, Focus Points Among Leading Japanese Hoshin Planning Experts

An early authoritative Western account of hoshin kanri, which it termed, Hoshin Planning. The work was based on team discussions that included Dow Chemicals, Procter & Gamble, Spectra Incorporated, Hewlett-Packard, and IBM. A model was derived for the integration of Hoshin Planning with TQM: this shows the three distinct areas of daily control, cross functional management, and hoshin planning. While the first maximises an individual's departmental performance, and the second maximises coordination and cooperation among related functions, hoshin planning maximises focus on strategic targets, from the CEO to line employees. Hoshin Planning is "simply PDCA applied to the planning and execution of a few critical (strategic) organizational objectives." The report gives advice about implementation for US practice.

**Hutchins D. (2008), *Hoshin Kanri: The Strategic Approach to Continuous Improvement*, Aldershot: Gower Publishing. 287 pps.**

Chapters: (1) Hoshin Kanri- An Overview, (2) Creating the Vision, (3) Strategy and Tactics, (4) Driver Policies. Becoming Fit, Fast, Lean and Hungry! (5) Driver measures to KPIs, (6) Benchmarking, (7) Prioritising KPIs and Cost of Poor Quality, (8) Risk Management, (9) The Loose Brick, (10) Hoshin Policy Deployment and Control, (11) The Voice of the Customers, (12) Six Sigma, (14) Lean Manufacturing, (15) Process Analysis and Process Re-engineering, (16) The Principles of Continuous Improvement, (17) Quality Circles, (18) Business Management Systems, (19) Quality Function Deployment, (20) Education, (21) Suggestions for Performance Indicators, (22) Implementation Plan.

A UK book, rather dense and difficult in its presentation; hoshin kanri gets lost in a welter of other (if related) subjects such as total quality, lean, QFD etc. Chapter 10 is really the only one dedicated to hoshin kanri.

**Jackson T. L. (2006), *Hoshin Kanri for the Lean Enterprise: Developing Competitive Capabilities and Managing Profit*, NY: Productivity Press. 205 pps, with DVD.**

Chapters: Introduction – A Resource-Based Approach to Strategy, (1) Hoshin Kanri Basics – Nested Experiments, X-Matrix and Chartering Teams, (2) Scan: Checking Market Conditions, (3) PLAN: Design a Midterm Strategy, (4) PLAN: Design the Annual Hoshin, (5) PLAN: Align the Organization Through Catchball, (6) DO: Engage the Workforce to Execute the Strategy, (7) CHECK: Create A Lean-Thinking Environment, (8) CHECK: The President’s Diagnosis, (9) ACT: Institutionalizing Hoshin Kanri Through Standardized Work, Kaizen, and Leadership Development.  
Conclusion, Recommended Reading.

Hoshin kanri seen as a way to implement a superior form of lean management. The text covers the approaches and tools used in lean.

**King B. (1989), *Hoshin Planning: The Developmental Approach*, Methuen MA: GOAL/QPC. 250 pps.**

Chapters: (1) Hoshin Planning and Total Quality Management, (2) Planning Problems and Hoshin Solutions, (3) Problem Solving Tools. (4) The Seven Management Tools, (5) Target/Measures Matrix, (6) The Flag System: One tool for Alignment, (7) Other Tools for Alignment, (8) Hoshin Planning, Phase 1: Process Management, (9) Hoshin Planning. Phase 2: Management Self-diagnosis, (10) Hoshin Planning, Phase 3: Alignment of Targets and Means with Long Range Vision and 1 Year Plan, (11) Advanced Hoshin Planning.

Appendices: Various diagrams, Toyota Auto Body Hoshin Plan.

Glossary, Conclusions, Bibliography

Along with the GOAL/QPC report, this is the first English language text; it is presented in a manual style, and strongly influenced by practice at Hewlett-Packard. Reporting on a visit to Japan by GOAL/QPC delegates in 1988 he found it to be the only system common to the companies visited. He used the words, Hoshin Planning. He argues that analogous to Maslow’s hierarchy of needs, the higher-order goals are possible only when lower-order ones have been fulfilled: i.e. strategic goals must be founded on meeting the needs of daily management. *“Hoshin planning helps to control the direction of the company by orchestrating change within a company. This system includes tools for continuous improvement, breakthroughs and implementation. The key to hoshin planning is that it brings the total organization into the strategic planning process, both top-down and bottom-up. It ensures that the direction, goals, and objectives of the company are rationally developed, well defined, clearly communicated, monitored, and adapted based on system feedback.”*

**Mazur G. H., Takasu H. and Ono M. (2001), *Policy Management: Quality Approach to the Strategic Planning*, Torrance CA: Integrated Quality Dynamics. (second edition). 112 pps.**

Chapters: (1) Policy Management and Total Quality Management, (2) Outline of Policy Management, (3) Daily Management and policy Management, (4) Control Items, (5) Initiating Policy Management, (6) Setting Policies, (7) Policy Deployment, (8) Managing Policy Throughout the Business Period, (9) CEO’s Diagnosis, (10) Policy Management Case Study for Product Production Business Units, (11) Policy Management Case Study of a Sales department.

Frequently asked questions.

First edition was 1998. Authoritative authors well versed in early Japanese work and practice. Good explanations of the basic concepts (unusual observations about the use of reflection reports in reviews). Strategy techniques and quality tools are included. Consideration is given to functional areas such R&D, Product Production units, and Sales.

**Melum M. A. and Collett C. (1995), *Breakthrough Leadership: Achieving organisational alignment through hoshin planning*, Chicago IL: American Hospital Publishing. 315 pps.**

Foreword (Warden G. L. and Bob King), Preface

Chapters: Part 1 - Introduction to Hoshin Planning (1) The Value of Hoshin Planning, (2) Definition of Hoshin Planning, (3) Hoshin Planning Key Success Factors, (4) Organising and Customising Hoshin Planning. Part 2 - How Hoshin Planning Works (5) Introduction to Process and Implementation, (6) Step 1: Choose the Focus, (7) Step 2: Align the Organisation, (8) Step 3: Implement the Plan, (9) Step 4: Review and Improve. Part 3 – Case studies of Hoshin Planning in Action (10) Bethesda Inc., (Hotopp D. with Kaminshi G.)(11) Our Lady of Lourdes Medical Centre (Hotopp D. and McNally O), (12) Sisters of the Sorrowful Mother Ministry Corporation (Bush M. L. and Beste J. T.), (13) Southwest Texas Methodist Hospital (Boisvert L. and Crabtree G.), (14) ATandT Transmission Systems (Monteforte L. E.), (15) Hewlett-Packard Company Medical Products Group (Harrington B., Gold L. and Collet C.), (16) The Wright Brothers: A Hoshin metaphor.

Appendices: Establishing Mission, Values and Vision, Hoshin Toolbox, Sample Hoshin Plans (excerpts)

Resources for additional information, Glossary

Chapter 13 is available as a standalone paper via GOAL/QPC (dated 2000). The most complete text on hoshin kanri in the health sector. The roles for leadership are made explicit. The reason for hoshin kanri is to achieve breakthroughs for its customers. The planning process involves focus, alignment of the organization on that focus, implement the plan, and review and improve. Healthcare examples are given throughout and the text ends with detailed cases as indicated by chapter heads.

King in the Foreword lists five lessons from experience (1) organization must be clear why it is doing TQM, (2) the hoshin review process is of primary importance, (3) have a time-table, (4) keep focus on one or two key breakthroughs, (5) start hoshin only when employees are adept at daily management.

**Sheridan B. M. (1993), *Policy Deployment: The TQM Approach to Long-Range Planning*, Milwaukee WI: American Society for Quality Control Quality Press. 114 pps.**

Chapters: Introduction, (1) Text Road Map, (2) History of Management, (3) Total Quality Management, (4) Policy Deployment, (5) Large Corporation Case Study, (6) Small Corporation Case Study, (7) What Next? Japanese Approach to TQM, (8) Ten-step Case Study, (9) Epilogue

Notes, Chapter bibliographies

An early book, by a manager who worked in the management services department of Florida Power and Light, one of the first Western companies to use Policy Deployment. It uses FPL as a case (examples of tables) and also use in SPATCO. a petroleum company. The work refers to the roles of an executive-level policy committee to conduct the process, and executive cross-functional committees to oversee performance in the areas of quality, delivery, cost, safety, and morale; the latter provides input to the policy committee and later to the quality committee to draft and check policies. This is how business fundamentals influence policy at the executive level.

**Smith S. (1997), *Plan to Win: Turning Strategy into Success*, Kogan Page (originally a Quest Worldwide Publication). 136 pps.**

Chapters: (1) Be a strategic winner, (2) Create Your Winning System, (3) Think - For that Winning Direction, (4) Plan - Involve those Who Deliver, (5) Deliver - Mobilise Teams for Results, (6) Review - Measure, Monitor and Learn, (7) Think Again - On and Up  
Glossary

Written by a consultant as a populist text that uses Policy Deployment ideas to make strategy work. It uses a check-list style of presentation

**Journal Articles and Occasional Papers**

Anand K. N., Bhoraskar J. N. and Mulye R. N. (1993), Using Policy Management to implement TQM, *Quality Progress*, 26(10), 89-93.

An early account of hoshin kanri (called here Policy Management) at an Indian company, Kirloskar Brothers Ltd., which derived and used (a rather large number of) 13 objectives. Very superficial.

Asada T. , Bailes J. C. and Suzuki K. (2000), Implementing ABM with Hoshin Management, *Management Accounting Quarterly*, Winter, 6-11.

The use of hoshin kanri (called here hoshin management) with activity-based management to reduce costs, in 1994, in the Japanese company, Omron Okayma Ltd. The approach is understood as a bottom-up gradual improvement process (the strategic dimension is ignored).

Asan S. S. and Tanyas M. (2007), Integrating hoshin kanri and the balanced scorecard for strategic management: the case of higher education, *Total Quality Management*, 18(9), 999-1014.

A Turkish account of a proposed use of combining the balanced scorecard (a performance approach) and hoshin kanri (process approach) at Istanbul Technical University. Uses Akio's definition and the FAIR model; the scorecard objectives correspond with the vital few of hoshin kanri.

Balla D. L. (1986), Florida Power and Light Company: The journey continues, *Quality Circle Journal*, (September), 28-31.

One of the first English language papers. A case study written by a manager of Florida Power & Light about hoshin kanri, called here, Policy Deployment. The perspective is limited and mainly taken from quality rather than strategic management.

Bechtell M. L. (1996), Navigating organisational waters with Hoshin Planning, *National Productivity Review*, 15(2), 23-42.

A summary of principles from her (1995) book above. Hoshins are understood as annual priorities derived from the needs of a mid-term plan. Detail is given of catchball planning and review, and a number of examples are cited, including Hewlett-Packard. One of the best easy-to-read papers about hoshin kanri.

Beecroft G. D. (1999), The role of quality in strategic management, *Management Decision*, 37(6), 499-503.

A review that covers the integration of strategy formulation and TQM. The Akao (1991) definition is used, but the paper only includes a brief note on hoshin kanri, with an emphasis that process matters as well as performance.

Boisvert L. (2012) Strategic planning using hoshin kanri, *Executive Whitepaper Series*, May, Salem NH: GOAL/QPC.

A good brief overview of the principles that emphasizes using one hoshin, the importance of catchball, and review.

Butterworth R. and Witcher B. J. (2001), Realising the vision: translating strategy into action through policy management, *Journal of the Institution of British Telecommunications Engineers*, part 3, August.

An exposition of Policy Deployment using FAIR, corresponding to the APDC phases of the Deming cycle.

Campbell S. (1997), Focusing and aligning hospitals through hoshin planning, *Health Care Strategic Management*, February, 15(2), 16-21.

A good very early review of principles for the health sector, citing a crisis at Methodist Healthcare System as an example of hoshin planning. The importance of a vital few is perhaps lost.

Chau V. S. and Witcher B. J. (2005), Longitudinal tracer studies: research methodology of the middle range, *British Journal of Management*, 16, 343-355.

A research article about the tracer methodology used for following the management of hoshins in real time at three Japanese UK subsidiaries.

Chau V. S. and Witcher B. J. (2008), Dynamic capabilities for strategic team performance management: the case of Nissan, *Team Performance Management*, Special Issue on Strategic Performance Management, 14(3/4), 179-191.

How hoshin kanri uses teams for top executive audits at Nissan; this is explained theoretically as a high order dynamic capability.

Colenso M. (1998), Masters of re-invention, *Professional Manager*, 7 (1): 8-11.

An easy to read overview, illustrating hoshin kanri as an approach for re-inventing the organization, a means of achieving whole-company alignment and focus at an operating level. A common language is achieved and a clear distinction is made between hoshins and kaizen and the point made that strategic direction is a two-way process.

Colletti J. (1998), Harnessing the power of visual deployment, *National Productivity Review*, (Summer), 67-73.

The importance of visibility in communication, a new model for effective strategy. Catchball is described using the Methodist Healthcare System, involving Southwest Texas Methodist Hospital and four others in San Antonio, and improved clarity and focus at Sodexo USA.

Colletti J. (2013), Strategic deployment: harnessing the power of visibility, *Executive Whitepaper Series*, February, Salem NH: GOAL/QPC.

A brief paper that emphasizes how matrices and charts feed across organizational levels, while maintaining sight of strategic goals.

Crabtree G., Hotopp D. and McNally O. (1995), Hoshin planning in health care: current initiatives at two medical centers, *Journal of Innovative Management*, Winter, 31-50.

The difference here is made between hoshin planning and conventional planning on the use of tools to drive data and participation. The paper refers to Akao (1991) and presents a case study at Our Lady of Lourdes Medical Center, and the Methodist Healthcare System. It refers to the GOAL/QPC TQM wheel, which distinguishes between hoshin management, daily management, and cross-functional management. Catchball and review are explained.

Cudney E. (2010), Strategic quality improvement through hoshin kanri, *The Quality Management Forum*, 36(3), 6-8.

A very brief note on linking hoshin kanri to lean and six sigma thinking; the approach, noted as Policy Deployment, is to cascade and drive strategic goals down to integrate them into daily activities. The importance of a vital few is not brought out.

Cullen J. (1993), Visualising improvement, *TQM Magazine*, (August), 33-38.

An article about practice policy Deployment at Rover Group, UK. Understood here as part of kaizen and quality strategy. Indicates how ideas were seen in the early adoption by Western companies.

Cwiklicki M. and Obota H. (2011), Hoshin kanri: policy management in Japanese subsidiaries based in Poland, *Business Management and Education*, 9(2), 216-235.

A recent academic paper based on case studies of three Japanese subsidiaries in Poland. It finds that hoshin kanri is a PDCA method of objective formulation and deployment. There is no explicit mention of a vital few/breakthrough. A link with ISO 9000 is noted.

Dale B. G. (1990), Policy deployment, *TQM Magazine*, (December), 321-324.

One of best early visual overviews of how corporate objectives are used and cascaded into annual operations. Hoshin kanri as a structured process, with checks at different levels, is clearly shown. The terms Quality Policy Deployment and Policy Deployment are used. The article was based on three visits by manufacturers to Japan to study total quality control.

DeBusk G. and DeBusk C. (2011), Combining hoshin planning with the balanced scorecard to achieve breakthrough results, *Balanced Scorecard Report*, 13(6), 7-10.

Of nine organizations using both hoshin kanri and the BSC, remarkable results are claimed; another ten that used only hoshin planning claimed a lesser beneficial result. Detail is not supplied.

DeFeo J. A. and Janssen A. (2001), Strategic deployment: a key to profitable growth, *Measuring Business Excellence*, 5(2), 4-5.

DeFeo J. A. and Janssen A. (2001), Why strategic deployment, *Measuring Business Excellence*, 5(3), 4-5.

DeFeo J. A. and Janssen A. (2001), The values of strategic deployment, *Measuring Business Excellence*, 5(4), 4-6.

DeFeo J. A. and Janssen A. (2002), The values of strategic deployment, *Measuring Business Excellence*, 6(1), 32-34.

The above four articles constitute a series about the deployment of strategy. These do not go very deep and could be understood as not specifically about strategic deployment in a hoshin kanri sense. There is a mild reference to quality management.

Duarte J. E. (1993), Policy deployment planning methods that get results, *CMA Magazine*, (May), 13-17.

An early account about improvement rather than strategy.

Gleason D. (1992), Goal deployment at Varian Crossed Field and Receiver Protector Products, *Center for Quality of Management Journal*, Autumn, 1(1), 9-14.

An account by an executive, giving quality management aspects that relate to hoshin kanri.

Harding P. and Witcher B. J. (2006), Top Executive Audits, *Management Today*, September, South African Quality Institute, 1-4.

About the involvement of top management in applying Policy Deployment, using FAIR.

Heverly M. A. and Parker J. S. (1993), Hoshin planning applies total quality management to the planning process, *New Directions for Institutional Research*, 20(78), 67-72.

Based on the King (1989) and GOAL/QPC (1990) approach, this covers the implementation of Hoshin Planning at the Delaware County Community College. An outline is given of the strategic planning process.

Hyde R. S. and Vermillion J. M. (1996), Driving quality through hoshin planning, *Joint Commission Journal on Quality Improvement*, 22(1), 27-35.

A case based on the Edward L. French Center of Devereux, a residential psychiatric center.

Jolayemi J. K. (2008), Hoskin kanri and hoshin process: a review and literature survey, *Total Quality Management and Business Excellence*, 19(3), 295-320.

One of the best incorporations of ideas from a spread of literature. It uses the GOAL/QPC (1989) Hoshin Planning process model and adapts it to include preplanning analysis, mission, values, standardisation. A

long list of related components, including quality principles and tools, is also included. The author distinguishes between Western and Japanese approaches, arguing that the former includes strategy as well as hoshin planning processes, but the Japanese is devoted solely to hoshin kanri processes.

Jolayemi J. K. (2009), Policy deployment: a review and comparisons of two best practices, *Total Quality Management and Business Excellence*, 20(8), 877-902.

Using the name, Policy Deployment, this uses his adaptation of the GOAL/QPC model as a framework to compare the contrasting approaches of Xerox (Management by Results) and Hewlett-Packard (Hoshin Planning).

Jusko J. (2007), Strategic deployment: how to think like Toyota, *Industry Week*, November, 256(11), 34-37.

A magazine article attributing Toyota's success to hoshin kanri. Quotes are provided by lean consultant, Pascal Dennis, and Toyota. According to a census of US manufacturing plants, 26.9% use strategic or policy deployment; it was 53% for manufacturers that employ over 500 people.

Jusko J. (2009), Planning an effective policy deployment process, *Industry Week*, October.

A report of a presentation by consultant, Bob Dean, who pints that strategy should not be confused with deployment, and improvement priorities should be limited to four or six.

Kano N. (1993), A perspective on quality activities in American firms, *California Management Review*, 35(3), 12-31. (See especially 22-26.)

An excellent paper giving a Japanese view of TQM in Western firms. Has a number of pages on Management By Policy (Hoshin Kanri), which is effective for strategy that requires a company-wide effort. These describe its nature and explains the system was developed to implement the PDCA cycle for company policies. He explains eight issues for Western practitioners.

Kenyon D. A. (1997), Strategic planning with the hoshin process, *Quality Digest*, 17(5), 55-64.

By an HP manager who gives examples from HP process, include tables.

Kenyan D. A. (1998), The hoshin process – linking strategy, process, and people, *Employment Relations Today*, Summer, 25(2), 1-16.

Hoshin planning has two sides: breakthrough activities and business fundamentals. Management aims to balance these. This is a good case that shows the main elements of the process used by HP.

Koenigsaecker G. (2006), Strategy deployment: linking lean to business strategy, *Manufacturing Engineering*, Dearborn, 136 (3), 163-171.

An introductory explanation of hoshin kanri and its significance for lean manufacturing.

Kogure M. (1994), The principles and practice of hoshin management in TQM, *Center for Quality of Management Journal*, Fall, 3(4), 3-12.

A theoretical exposition of functional management and the role of hoshin kanri.

Kondo Y. (1998), Hoshin kanri – a participative way of quality management in Japan, *The TQM Magazine*, 10 (6), 425-431.

A Japanese account of the process, when the PDCA cycle for leaders is central.

Kunonga, E., Whitty P. and Singleton S. (2010), The applicability of hoshin kanri for strategic planning and deployment in the public sector: a case study from NHS North East, *Journal of Management & Marketing in Healthcare*, 3(1), 87-97.

An explanation of principles and how these were used to develop and implement the NHS North East's new objectives, goals, initiatives and monitoring metrics framework.

Lee R. G. and Dale B. G. (1998), Policy deployment: an examination of the theory, *International Journal of Quality & Reliability Management*, 15(5), 520-540.

A comprehensive literature review up to this date. The importance of catchball is stressed.

Loftus P. (2006), When lean companies stay fat: as Danaher's experience demonstrates, lean manufacturing is an exacting discipline requiring a comprehensive view of the business, *Chief Executive (U.S.)*, October-November, 6 pps.

An overview of the Danaher business system by an executive at Accenture. Hoshin kanri is the thing that makes its lean working different. Not much detail.

Manos A. (2010), Hoshin promotion, *Six Sigma Forum Magazine*, 9(4), 7-14.

The rise of six sigma's popularity and adoption in healthcare of lean approaches has seen a renaissance of hoshin kanri. An emphasis on tools and good examples are provided of the X matrix and value stream map. It is important to envision the future (looking for present gaps).

Mann D. and Domb E. (2009), TRIZ/systematic innovation enhances hoshin kanri, *The TRIZ Journal*, November, 5 pps.

Observes that companies using hoshin kanri still wish to use MBO; The Theory of Inventive Problem Solving (TRIZ) provides a solution to this contradiction, the authors argue.

Marksberry P. (2011), The theory behind hoshin: a quantitative investigation of Toyota's strategic planning process, *International Journal of Business Innovation & Research*, 5(4), 347-370.

Hoshin kanri is consistent with thinking in strategy that includes the resource-based view (the dynamic capability it provides however, seems to be internally rather than externally focused), emergent strategy, and agency theory. Strategy formation and implementation phases are more integrated than traditional approaches. The research uses latent semantic analysis.

Marsden N. (1998), The use of hoshin kanri planning and deployment systems in the service sector: an exploration, *Total Quality Management*, 9(4 and 5), S167-S171.

A limited review to set a research agenda for further research in services.

Meier R., Williams M. and Singley R. (2010), Using the hoshin X-Matrix to align corporate strategy with projects, risks, and quality metrics, *The Quality Management Forum*, 30(6), 5-15.

A concise explanation of the steps for completing a hoshin X-matrix process. The authors offer their own adaptation.

Mothersell W. M., Moore M. L. and Reinerth M. W. (2008), Hoshin kanri planning: the system of five alignments behind the Toyota Production System, *International Journal of Business Innovation and Research*, 2(4), 381-401.

The TPS is grounded in a hoshin kanri planning system made up of five alignments. These are explained as a strategic, horizontal, vertical, process management, and employee development, alignments. The latter three are often handled poorly by US lean practitioners.

Mulligan P., Hatten K. and Miller J. (1996), From Issue-based planning to hoshin: different styles for different situations, *Long Range Planning*, 29(4), 473-484.

Hoshin Planning is considered as one of four planning approaches. There is only a brief note.

Nanda V. (2003), A process for the deployment of corporate quality objectives, *TQM and Business Excellence*, 14 (9), 1015-1021.

A overview to give the flavour of Policy Deployment or Strategy Deployment in cascading corporate objectives to an organizational level.

Newcombe J. E. (1989), Management by Policy Deployment, *Quality*, (January), 28-30.

An outline of the overall process though without examples.

Osada H. (1998), Strategic management by policy in total quality management, *Strategic Change*, 7, 277-287.

A Japanese author who argues for a more strategic approach. A detailed example from Canon and its use of S7 (the seven strategic tools: environment, product, market, product-market, portfolio, strategic element, resource allocation, analyses) is used to show how strategy formulation and policy (goal and means) might come together.

Pekdemir I., Arslantas C. C., Berber A. and Ulgen A. (2000), *A study on hoshin kanri planning systems applications in companies that have received ISO 9001-9002 certifications from the Turkish Standards Institution*, Istanbul University, School of Business Administration, 92-107.

Provides a broad view of Hoshin Kanri Planning Systems in Turkish companies are ISO 9001-9002 approved. Using a statistical analysis they conclude that a long-term view and forecasting are important to hoshin planning. Rather unclear.

Platt D. and Laird C. (1995), CQI: using the hoshin planning system to design an orientation process, *Radiology Management*, Spring, 42-50.

About the successful use of tools at Carson-Tahoe Hospital.

Pun K. F. Chin K. S. and Lau H. (2000), A QFD/hoshin approach for service quality deployment: a case study, *Managing Service Quality*, 10(3), 156-169.

An explanation of Quality Strategy Deployment, a 13 step process based on a combined QFD and hoshin approach at the Manufacturing Engineering Laboratory of City University Hong Kong.

Rakich J. S. (2000), Strategic quality planning, *Hospital Topics*, 78(2), 5-11.

How Hoshin Planning could be used in health; use of Melum and Collett (1995).

Riccaboni A. and Leone E. L. (2010), Implementing strategies through management control systems: the case of sustainability, *International Journal of Productivity and Performance Management*, 59(2), 130-144.

A rare reference to Proctor & Gamble's Objective, Goals, Strategies and Measures (OGSM), a hoshin system. Here it is shown to deploy sustainability-oriented strategy. A balance of the formal and informal is emphasized for integrating sustainability as an organizational way of thinking.

Rich N. (2003), Policy deployment: taking strategy into action, *Senior Executive Briefing Paper*, London: Deloitte and Touche,

This is an explanation of Policy Deployment for executives. The process is outlined and the barriers to effectiveness listed. He argues that the system brings together all the elements of the internal and external supply chain.

Richa C. E. and Edwards D. K. (1992), A JIT implementation plan using policy deployment, *Manufacturing Review*, 5(3), 166-174.

Policy Deployment can be used to implement major changes to working; a case study at Delco Chassis, General Motors.

Roberts P. and Tennant C. (2003), Application of the hoshin kanri methodology at a higher education establishment in the UK, *The TQM Magazine*, 15(3), 82-87.

The testing of Hoshin Kanri by a small team at the Warwick Manufacturing Group, Warwick University. The authors claim the original Japanese concept can be applied without adaptation in a Western service sector organization.

Rodriguez-Balo A. and Ferrandiz-Santos J. (2004), Integration of the EFQM model and hoshin kanri policy deployment in a primary care area, *Revista de Calidad Asistencial*, 19(1), 45-52.

The EFQM was used first to self-evaluate, then it was followed by the application of policy management and policy deployment. This facilitated participation from management and health professionals. Institutional policies were integrated with normal operational planning.

Shiba S., Purch T. and Stasey R. (1995), Introduction to hoshin management, *Center for Quality of Management Journal*, 22-33.

Partly based on the experience of Analog Devices Inc. and Teradyne, this covers the subject well and includes many illustrations and figures. The importance of diagnosing the hoshin kanri system rather than its achievement is also observed.

Soltero C. (2007), Hoshin kanri for improved environmental performance, *Environmental Quality Management*, 16(4), 35-54.

An overview, but the article is primarily about quality tools and techniques.

Stratton B. (1997), TI has eye on alignment, *Quality Progress*, October, 30-34.

About total quality at Texas Instruments, but notes Policy Deployment as enhancing TI's ability to focus on what is important.

Symphony Orchestra Institute (2000), Cultural change in the Pittsburgh Symphony Organization: a round table discussion, *Harmony*, 11, Forum of the Symphony Orchestra Institute, 24-30.

A discussion between participants about the previous three years of hoshin kanri. The main advantages had been in terms of an enhanced commitment and involvement. See Toeplitz (1998).

Tennant C. (2007), Measuring business transformation at a small manufacturing enterprise in the UK, *Measuring Business Excellence*, 11(4), 66-74.

The use of Strategic Quality Management (hoshin kanri ideas) in a UK SME.

Tennant C. and Roberts P. (2000), Using Hoshin Kanri for strategy deployment, *International Journal of Manufacturing Technology and Management* 2 (1-7), 517-531.

The creation of a five year quality strategy at Rover Group and its policy deployment.

Tennant C. and Roberts P. (2000), Hoshin Kanri: a technique for strategic quality management, *Quality Assurance*, 8(2), 77-90.

A case study to show how strategic policy deployment works in a large UK engineering firm.

Tennant C. and Roberts P (2001), Hoshin Kanri: implementing the catchball process, *Long Range Planning*, 34, 287-308.

The use of the Delphi technique for catchball at the Rover Group to develop a quality strategy based on hoshin kanri. Some deficiencies were observed.

Tennant C. and Roberts P. (2000), Hoshin Kanri: a technique for strategic quality management, *Quality Assurance*, 8 (2), 77-90.

An introduction and explanation for a quality management audience.

Tennant C. and Roberts P. (2003), The creation and application of a self-assessment process for new product introduction, *International Journal of Project Management*. 21, 77-87.

This is more about deriving a self-assessment framework than having directly anything to do with hoshin kanri. The example is a new product development process at Land Rover.

Tennant C. and Roberts P (2003), Managing knowledge through hoshin kanri, *Industry and Higher Education*, 17(1), 59-66, 68.

Hoshin kanri is explained and offered as a practical method for managing knowledge.

Theadacare Center for Healthcare Value (2011), Strategy deployment: Transforming healthcare organizations with iterative, informed planning and execution, *Healthcare Report*; also Thinking Lean at Theadacare: Strategy Deployment, DVD <createhealthcarevalue.com>

Strategy deployment defined as a two-way process that facilitates goals and plans both up and down an organization. Senior management identify priorities to support a vision or mission (true north). The paper explains the basics, stressing A3s and PDCA. There are two deployment cycles a year. Theadacare is one of the most influential lean and hoshin kanri practitioners in Health.

Thomason D. (2005), Getting your ducks in a row or hoshin kanri, *Logistics & Transport Focus*, 7(7), 29-34.

Proposes using hoshin kanri for organizational alignment. A case study of Unipart illustrates how its policy deployment worked.

Toeplitz G. (1998), Hoshin and the Pittsburgh Symphony, *Harmony*, 7, Forum of the Symphony Orchestra Institute, 1-12.

The story of the hoshin process as it was applied to the orchestra's organization. This was the first article, for the follow-up, see Symphony Orchestra Institute (2000).

Torrance S. and Montgomery W. (1997), Heavy duty hoshin deployment: real world applications for accelerating strategic business breakthrough, *Journal of Innovative Management*, 2(2), 30-41.

A case study of hoshin kanri at Mack Trucks.

Walden D. (1997), Task deployment management, *Center for Quality of Management Journal*, Spring, 6(1), 27-33.

Hoshin kanri at a departmental level to help in the alignment of tasks.

Witcher B. J. (2002), Hoshin Kanri: a study of practice in the UK, *Managerial Auditing Journal*, 17(7), 390-396.

An illustration of the generic model using the APDC cycle to define the main phases of the process.

Witcher B. J. (2003), Policy management of strategy (hoshin kanri), *Journal of Strategic Change*, 12(1), 83-94.

Using the term, Policy Management, to explain the FAIR strategic management framework for implementing strategy, which was an outcome of ESRC sponsored research.

Witcher B. J. and Butterworth R. (1997), Hoshin kanri: a preliminary overview, *Total Quality Management*, 8(3), 319-323.

A position paper explaining a research project.

Witcher B. J. and Butterworth R. (1999), Hoshin kanri: how Xerox manages, *Long Range Planning*, 32(3), 323-332.

A research study, using the FAIR framework to examine Hoshin Kanri (called here Policy Deployment) at Xerox (UK), which was primarily a service organization. A major issue was the overloading of the number of vital few programmes.

Witcher B. J. and Butterworth R. (2000), Hoshin kanri at Hewlett Packard, *Journal of General Management*, 25(4), 70-85.

A research study of practice at Hewlett-Packard showing the relation of business fundamentals to hoshins.

Witcher B. J. and Butterworth R. (2001), Hoshin kanri: policy management in Japanese-owned UK subsidiaries, *Journal of Management Studies*, 38(5), 651-674.

A research paper presenting findings from an ESRC sponsored study of hoshin kanri at Calsonic Exhaust Systems, Nissan Yamato Engineering Company, and NSK Bearings Europe. The importance of company-wide review is paramount, and some of the main issues include changes in personnel, problems with administering periodic review, and cross-functional working in departmental forms of organization.

Witcher B. J. and Chau V. S. (2007), Balanced scorecard and hoshin kanri: dynamic capabilities for managing strategic fit, *Management Decision*, 45(3), 518-538.

An exploration of the complimentary uses of the BSC to formulate objectives/measures, and hoshin kanri to deploy objectives/means derived from the BSC. This is discussed in association with strategic management concepts, including purpose statements, business model, core competences and dynamic capabilities.

Witcher B. J. & Chau V. S. (2012), Strategic Management and Varieties of Capitalism: Managing Performance in Multinationals after the Global Financial Crisis, *British Journal of Management*, 23 (March), 558-73.

Hoshin kanri is part of an integrated approach to strategic management, but this requires taking a resource-based view of strategy, which may not be favoured by companies from countries which take a more market-based approach.

Witcher B. J., Chau V. S. and Harding P. (2007), Top executive audits: strategic reviews of operational activities, *Managerial Auditing Journal*, 22(1), 95-105.

The role of top executive audits at Nissan South Africa and their importance to Nissan's hoshin kanri.

Witcher B. J., Chau V. S. and Harding P. (2008) Dynamic capabilities: top executive audits and hoshin kanri at Nissan South Africa, *International Journal of Operations and Production Management*, 26(8), 540-561.

Top executive audits and hoshin kanri as higher order dynamic capabilities, following thinking in the resource-based view of strategy.

Wood G. R. and Munshi K. F. (1991), Hoshin kanri: a systematic approach to breakthrough improvement, *Total Quality Management*, 2(3), 213-226.

A description of the hoshin kanri cycle, informed by practice at Florida Power and Light.

Yang C-C. and Yeh, T-M. (2007), An integrative model of hoshin management and six sigma in high-tech firms, *Total Quality Management & Business Excellence*, 20(9), 989-1002.

This is introduced an integrated model of Hoshin Management and Six Sigma, which was successfully used at Inventee Multimedia & Telecom Corporation in Taiwan, where previously their implementation had faltered.

Yang T-M and Su C-T, (2007), Application of hoshin kanri for productivity improvement in a semiconductor manufacturing company, *Journal of Manufacturing Technology Management*, 18(6), 761-775.

A description of successful hoshin kanri at a semiconductor manufacturing company based in Taiwan. The authors introduced their own EIDPER (i.e. envision, identity, prioritise, execute, review, stages) model for implementation, which they contrast to the FAIR model.

Zairi M. (2006), Hoshin planning: strategy of a different kind, *Handbook of Business Strategy*, 7(1), 149-159.

A paper was originally published in the International Journal of Applied Strategic Management, and the case examples from Proctor & Gamble, Komatsu Ltd., Hewlett-Packard, Rank Xerox Ltd, date from the 1990s. The paper concludes with a 'common roadmap' (based on benchmarking) of nine steps: vision, a hoshin drives change, used for annual strategic planning alongside business planning, identify vital few via catchball, cause-and-effect thinking for implementation programmes, method and scope of deployment, team-based implementation, and monitoring through measurement and review.

### **Chapters/Sections in Books**

Bicheno J. (2008), Policy Deployment, section in Bicheno J. *The Lean Toolbox for Service Systems*, Buckingham: Production and Inventory Control, Systems and Industrial Engineering Books, 282-287.

A review of hoshin kanri as a tool, termed here Policy Deployment, in lean working. Reference is made mainly to Cowley and Domb (1997). It is noted that policy deployment is the PDCA cycle applied at an organizational level (the FAIR model).

Cole R. E. (1999), Japanese quality technology: transferred and transformed at Hewlett-Packard, chapter 6 in Liker J. K., Fruin W. M. and Adler P. S. (Eds.) (1999), *Remade in America: Transplanting and Transforming Japanese Management Systems*, Oxford: Oxford University Press, section called Hoshin Management, 220-224.

The story of the introduction of Hoshin Planning to corporate Hewlett-Packard through its Japanese subsidiary, Yokagawa HP. HP developed its own less formal approach using only three forms (i.e. planning, implementation, and review tables).

Cook D. (1990), PA Consulting Group: the practice of quality, chapter 12 in Huges E. C. (Ed.) *Total Quality: A Manager's Guide for the 1990s* (2<sup>nd</sup> edit.), London: Kogan-Page, 121-128.

A consultant and executive outlines a two part deployment model for a 5 year business strategy on one side, and breakthrough and improvement for customer driven plans, on the other.

Fortuna R. M. and Vaziri H. K. (1992), Orchestrating change: policy deployment, chapter 3 in Huges E. C. (Ed.) *Total Quality: A Manager's Guide for the 1990s*, London: Kogan Page, 39-53.

A good early account from Ernst and Young Quality Improvement Consulting Group, presenting Policy Deployment as a means for orchestrating continuous improvement and it contrasts the approach with MBO. No cases used.

Hines P., Found P., Griffiths G. and Harrison R. (2008), Strategy and alignment, section in Hines et al (Eds.) *Staying Lean; Thriving, Not Just Surviving*, Cardiff University: Lean Enterprise Research Centre, 9-26.

Imai M. (1986), *Kaizen: The Key to Japan's Competitive Success*. New York: McGraw-Hill, section on policy deployment, 142-145.

A classic total quality text, it notes the deployment of top management's annual goals as first abstracts, then becoming more specific and concrete for practical use, and the importance of priority (following the Pareto principle). Kaizen policy is cross-functional and functional policy is based on this.

Ishikawa K. (1990), *Introduction to Quality Control*, Cambridge MA: Productivity Press, section 7.12 on Policy Management, 426-429.

A classic total quality text, however it uses a vocabulary not mainstream to hoshin kanri: it use priority (i.e. hoshin) and routine (i.e. daily) management. Policy Management is management that starts with policy. A list is given of priorities to consider for long-term policies and plans.

Kaplan R. S. and Norton D. P. (2008), *The Execution Premium: Linking Strategy to Operations for Competitive Advantage*, Boston MA: Harvard Business Press, sections on catchball at Information and Communications Mobile, and Thai Carbon Black, 166-169.

They outline how the catchball is used by mobile phone company, Information and Communications Mobile, and Thai Carbon Black. The significance here is that Kaplan and Norton suggest hoshin kanri can complement the use of the BSC. The latter used to formulate strategic objectives and the former to deploy them.

Kondo Y. (1988), Quality in Japan in Juran J. M. and Gryna M. (eds.) *Juran's Quality Control Handbook.*, London: McGraw-Hill, section 35F, F.8-F.17.

There are two particularly relevant parts: Policy Control (Hoshin Kanri) in Japanese Companies, and Internal QC Audit by Top Management. The latter is rated outstanding, and provides a check on policy, and gives a chance for leaders to reflect on how they do things.

Lee R. G. and Dale B. G. (2007), Policy Deployment, chapter 8 in Dale B., van der Wiele T. and van Iwaarden J. (Eds.), *Managing Quality* (5<sup>th</sup> edit.) Malden MA: Blackwell Publishing, 151-175.

A literature review. While appearing in later editions, the substance has remained generally unchanged since the first edition of the book.

Liker J. K. and Convis G. L. (2012), Hoshin kanri: align vision, goals, and plans for continuous improvement, chapter 5 in *The Toyota Way to Lean Leadership*, London: McGraw-Hill.

Liker J. K. Hoseus M., and The Center for Quality People and Organizations (2008), Hoshin kanri and floor management development system, chapter 15 in Liker J. K. et al. (Eds.) *Toyota Culture: The Heart and Soul of the Toyota Way*, London: McGraw-Hill, 427-458.

A book focused on the human perspective at Toyota. It makes the point about other companies using it, that it is necessary to have a facilitating culture (and the basics for participation such as the necessary skills and trust) or hoshin kanri will not work at the floor level: these things provide the foundation.

Mannix P. M. and Pelham J. C. (1996), Hoshin planning/strategic policy deployment, chapter 10 in *Today's Management Methods*, 155-169.

Explains the phases of Strategic Policy Management and gives examples from Mercy Health Services.

Nemoto M. (1987), Policy control and middle management, chapter 3 in *Total Quality Control for Management*, Englewood Cliffs NJ: Prentice Hall, 45-61.

A review of the issues that middle management must address and how to do this.

Rich N. and Hines P. (2000) Deploying strategic management in the value stream, chapter 6 in Hines P., Lamming R., Jones D., Cousins P., and Rick N. (Eds.) *Value Stream Management: Strategy and Excellence in the Supply Chain*, Harlow: Prentice Hall, 99-134.

Policy Management as an application of TQM to strategic management and the importance of cross-functional management, especially for integrating suppliers in the value chain.

Shiba S., Graham A. and Walden D. (1993), Hoshin Management, chapter 14 in *A New American TQM: Four Practical Revolutions in Management*, Cambridge MA: Productivity Press, 411-460.

A good strategic rather than a total quality view of Hoshin Management. Examples include NEC Shizuoka. Daily work is unified through hoshin management; at the top of the model is the president's diagnosis (a rare account); hoshin management is opposed to MBO (or immature MBO).

Shook J. Y. (1997), Bringing the Toyota Production System to the United States: A personal perspective, chapter 2 in Liker J. K. (Ed.) *Becoming Lean: Inside Stories of US Manufacturers*, Portland OR: Productivity Press, 41-69 See the section, Policy management, as revolutionary as TPS, 57-58.

One of first western managers to become directly involved with Toyota and attempts to introduce ideas into western firms, including the GM Fremont plant (NUMMI), this is an insightful account. For example, "Policy management is often confused with policy deployment, a relatively simple prioritization process in which the desires and objectives of senior management (the company) are deployed throughout the organization (the employees). That is a good first step. But policy management Toyota-style was a much more dynamic process, with lower levels of the organization taking part in formulating policy as well as carrying it out. As lean organizations mature policy deployment should evolve into policy management." (p. 58).

Soin S. S. (1992), The Planning Process, chapter 3 in *Total Quality Control Essentials: Key Elements, Methodologies and Managing for Success*, NY: McGraw-Hill, 49-91.

Explains an annual hoshin plan, the planning process, also covers the daily management or business fundamental plan. Hoshin reviews, formats and guidelines, through to implementation plans, and Q&As are considered. Much of the methodology explains comes from internal Hewlett-Packard sources. An excellent account.

Toussaint J. and Gerard R. A. (2010), The Power of Hoshin Kanri, and Engage Leaders Early in Strategy Deployment, in Toussaint J. and Gerard R. A. *On the Mend: Revolutionizing Healthcare to Save Lives and Transform the Industry*, Cambridge MA: Lean Enterprise Institute, 76-78, 145-146, respectively.

An account of the first seven years of using lean working in healthcare, written by two executives from the ThedaCare Center for Healthcare Value. The center had too many programmes and not enough resources to be effective. Hoshin kanri, called here Strategy Deployment, was used to focus on a few key priorities. Use of A3 to link highest level objectives to issues worked out using root cause analysis. The importance of involving senior managers is crucial. An A3 template, and a visual matrix diagram, are included in the appendices.

Watson G. H. (2003), Policy Deployment: Consensus Method of Strategy Realization, chapter 10 in Conti T., Kondo Y. and Watson G. H. (Eds.) *Quality into the 21<sup>st</sup> Century: Perspectives on Quality*

*and Competitiveness for Sustained Performance*, WS Milwaukee: International Academy for Quality, American Society for Quality, 191-218.

While recognising Policy Management, he suggests Managing by policy as an alternative name. The chapter gives an overview and some more general background.

Wikipedia (2013), Hoshin kanri, *free online encyclopedia*, </en.wikipedia.org/wiki/Hoshin Kanri> accessed August.

Understood as a strategic planning/strategic management methodology that uses seven steps. This seems to emphasize top-down strategy, while it is recognised that progress must be reviewed periodically. Important elements such as catchball, PDCA for senior managers, the vital few, annual diagnostic audits, seen relatively neglected. Time to update the encyclopedia.

Witcher B. J. and Chau V. S. (2014), *Strategic Management: Principles and Practice* (2<sup>nd</sup> edit.), London, South-Western, Cengage Learning.

Woldberg R. (2000), Nissan Europe, Amsterdam: Hoshin Kanri, chapter 7 in Benders J., Noorderhaven N., Keizer A., Kuman H. and Stam J. (Eds.) *Mirroring Consensus: Decision-Making in Japanese-Dutch Business*, Uitgeverij LEMMA BV, Utrecht., 115-125.

Tools and the catchball process are illustrated. Some slight national cultural differences and some functional ones are noted.

### **Selected Conference Papers**

Cwiklicki M. (2010), TQM methods applied in the hoshin kanri management system, Business and Management, 6<sup>th</sup> *International Scientific Conference*, May, Vinius Gediminas Technical University, Lithuania.

A recent review of literature and research conducted in Japanese subsidiaries in Poland. The subsidiaries were sampled to identify a link between different management methods and the occurrence of hoshin kanri; only six sigma had a positive correlation with hoshin kanri.

Hacker M. E. and Kleiner B. M. (1996), policy deployment – the missing link in operationalizing the total quality management philosophy, *American Society for Quality Control 50<sup>th</sup> Congress Proceedings*, 226-231.

Argument for using policy Deployment to implement TQM. The difference to traditional strategic management is explained.

Hawkins R. M. (1992), policy deployment: avoiding the crisis of distraction, American Society for Quality Control, *Quality Congress Transactions*, 599-605.

An early account of implementation by a Western company of Hoshin Planning at McDonnell Aircraft Company. The need to prioritize and minimise goals, and the need of direct hands-on involvement of the senior executive are noted as some of the main lessons.

Koura K. (1990), Survey and research in Japan concerning policy management, *ASQC Quality Congress Transactions, San Francisco*, 348-352.

Report on research carried out by the policy Management Case Study Research Committee of the Japanese Society for Quality Control. A long definition is given for policy Management, as well as an account of basic thinking, and brief introductions to the flag system of Komatsu and the Goal and Measure Matrix Diagram of Kobayashi Kosei.

Koyama K., Aoyama K. and Tamura K. (1994), TQC activities on the basis of hoshin kanri (management by policy), *International Conference on Quality*, October, Yokohama, Union of Japanese Scientists and Engineers, 191-196.

A case study of TQC and hoshin kanri started in 1991 at NEC Radio and Electronics.

Liedtke C. A. (2012), The application of policy deployment in Indian companies, *Asian Network for Quality Congress*, August, Hong Kong, August, 14 pps.

The paper covers four anonymous case studies of Policy Deployment in four Indian companies. These had won the Deming Prize. Approaches were successful, sometimes used with the BSC and six- sigma. There was no uniform approach and no cultural problems.

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