

INTRODUCING THE HOSHIN KANRI APPROACH IN SMALL AND MEDIUM SIZED COMPANIES

Malin Löfving¹, Anders Melander², David Andersson³, Fredrik Elgh¹, Mikael Thulin³

¹Jönköping University, School of Engineering, Jönköping, Sweden

²Jönköping University, Jönköping International Business School, Jönköping, Sweden

³Träcentrum, Nässjö, Sweden

Malin.lofving@jth.hj.se

Abstract: In order to grow, small and medium-sized enterprises (SMEs) have to balance the inherent flexibility of the small firm with formal work division and administrative routines. This balancing is apparent in SME's approach to strategy work. In order to address this need of balancing in strategy work we in this paper introduce the Hoshin Kanri approach to the SME context. Based on an extensive literature review we identify the principles of Hoshin Kanri and develop an adapted approach to small and medium sized companies. Finally we report on the lessons learnt after initiating the adapted approach in four SMEs.

Keywords: Strategy, Strategy work, Hoshin Kanri, Policy deployment, Small and medium-sized enterprises (SME)

1. INTRODUCTION

A fundamental challenge for growing small and medium-sized enterprises (SMEs) is that they have to balance the flexibility of the small firm with a need for more formal work division and administrative routines. Hoshin Kanri is an approach that address this issue. Hoshin Kanri is a strategic management method originally developed in Toyota that aims to integrate the company's strategy work and core activities as manufacturing and product development (Kondo, 1998, Marksberry, 2011).

Hoshin Kanri is widely adopted in Japanese companies, but less spread in Western companies. Even though the few companies in West that have applied Hoshin Kanri have won many reputable awards, Hoshin Kanri has not gained widespread popularity (Tennant and Roberts, 2001). Moreover, most Western companies using Hoshin Kanri are larger companies, and there is few evidence of Hoshin Kanri application in SMEs (Jolayemi, 2008).

However, the lack of evidence of the use of Hoshin Kanri in SMEs is not the only problem identified when reviewing the literature. Our review on Hoshin Kanri literature (about 50 references detected) disclose a focus on methodological tools, and there is little insights on how to initiate Hoshin work in organizations (cf Hutchins, 2008; Jolayemi, 2008). Themes as initial analysis, formulation of objectives and overall strategy is not prioritized (Witcher and Chau, 2007). At the same time Hoshin Kanri offers a potential contribution as the approach both can be linked to lean activities and is inclusive in nature, i.e., assumes the involvement of all employees and functions in a company (Lee and Dale, 1998).

Consequently there is a remaining need for making the knowledge about Hoshin Kanri available and applicable in SMEs. In this paper we report on our learning when introducing Hoshin Kanri in manufacturing SMEs. The paper presents the results of the first phase (pre-study) of a Hoshin Kanri research project, which aims to adapt the Hoshin approach to manufacturing SMEs.

2. THEORY BACKGROUND

2.1 *Strategy work to grow small and medium-sized enterprises*

SME¹s exhibit characteristics that distinguish them from larger companies (e.g. Ghobadian and Gallear, 1997; Hudson et al., 2001). Important features that characterize SMEs are; personalised management, centralised and informal decision-making, severe resource limitations in terms of management and manpower, as well as finance, reliance on a small number of customers, and operating on limited markets, high innovative and creative potential, reactive, fire-fighting mentality, operational focus, flat and flexible organisation (cf. Ghobadian and Gallear, 1997; Hudson et al., 2001).

Several of these characteristics that SMEs share, affect conditions for growth. As size increases, the cost of informal direct leadership often exercised in the small company increases. The need to develop and manage leaders emerge as a vital skill. This leadership development has to be accompanied by more formal work division and administrative routines (Achtenhagen et. al., 2014). Hence, we enter a stage in which it is easy to lose the flexibility that added competitive advantage in the small company. This is a conclusion supported by several empirical studies in Sweden (cf Nutek, 2011). Companies need to find ways of balancing this inevitable formalization with more entrepreneurial modes of acting, i.e. to develop a competence of management duality (Achtenhagen, et al, 2003). In this situation strategy work often comes into focus as a critical activity. How to develop a way of working with strategy that transforms often unconscious processes and plans into explicit routines and plans, and that offers ways of including co-workers in the strategy work process?

What does research on strategy work offer the manager of SMEs? There are few answers provided as most literature are silent on the specific issues we discuss above (Hutzschenreuter and Kleindienst, 2006). Most literature hitherto has either a focus on the existence of planning in SMEs (measured as the existence of a written plan) or a focus on the relationship between formal planning and performance (Kraus, et al., 2008). And there are few examples that examines how strategy work really is done in practice (cf Jones et. al., 2007). It is argued that the present status of research on strategy work is related to the dominance of one strategy paradigm, the design school model (Mintzberg, 2000, Vaara and Whittington, 2012)

This paper set out to evaluate how the Hoshin Kanri approach can offer a contribution to organize strategy work in SMEs aspiring to grow. The Hoshin Kanri approach, represents one of the few alternatives to the dominating view of strategy work (the design school planning approach) and as such it offers promising characteristics. But the approach has according to our literature review not been adapted to a small and medium sized company context. Tennant (2007) represent the only identified source with an explicit SME focus as it reports on an action research project in a small company (20 employees) in Britain. He conclude that Hoshin Kanri offers a high potential in the SME context as the introduction of the approach transformed the organisational culture in the case company into a more holistic view of the business. Tennant (ibid) urge for more studies of Hoshin Kanri in the SME context.

2.2 *Hoshin Kanri*

The basis of the Hoshin Kanri approach was set out in the 1950's. The origin is unclear but it is argued that the conceptualization of the approach started at a course on quality control sponsored by the Japan Association of Science and Technology (Tennant and Roberts, 2001) and that the foundation was a blend of Edward Demings lectures in Japan on the PDCA cycle, causes of variation and process control together with Peter Druckers "Management by Objectives" philosophy (Drucker, 1954) (Babich, 2005). The next milestone was in 1962 when the Bridgestone Tire Company developed Hoshin Kanri as a management system integrated with their Total Quality Control (TQC) methodology (later TQM) (Akao, 1991). The next phase was when Dr Akao and Mizuno coached Yokagawa Hewlett-Packard to a prize winning status in the 1970's and by that diffused the approach to the US (Watson, 2005). Since then the link has been strong between Total Quality Management (TQM) and Hoshin Kanri (Ishikawa, 1985). Witcher and Butterworth (1997) state that this link defines the uniqueness of the approach as Hoshin Kanri represents the application of TQM in strategy. And later on it is argued that;

¹ In this study we start with the categorisation introduced by the European Commission's (2014) in which autonomous companies with 0-250 employees are defined as SMEs. To be considered autonomous, another company must not own more than 25 % of the company or the company must not own more than 25 % of another company (European Commission, 2014). However the application of "autonomous" will be further discussed in the empirical section of the paper.

“Hoshin Kanri provides an organizational architecture and transparency which is necessary if strategy and daily management are to combine in their use of TQM” (Witcher and Butterworth, 1999:324)

2.3 The Hoshin Kanri Approach

The meaning of Hoshin is shining metal, compass or pointing direction and Kanri means (daily) management or control. Together the two words communicate the basic idea of the approach (Jolayemi, 2008). To put it simple; Hoshin kanri is a management compass that consist of breakthrough objectives deployed top down in the organization. This process is powerful once these objectives are linked to continuous improvement work (Kaizen). I.e., the linking of top-down and bottom-up (Osada 1998). The main focus in Hoshin Kanri is however on the top-down process. According to the seminal work by Akao (1991) Hoshin Kanri provides a step-by-step planning, implementation and review process for managed change. However from this common starting point there exist some differences in how the approach is depicted (Marsden, 1998). Here we present three illustrative alternatives identified in the literature review;

“**The six elements model**” (Tennant & Roberts, 2001).

- Five-year Vision (review of internal and external obstacles, input from all managers)
- The one-year plan (deriving from the 5-years vision a situational analysis and last year performance)
- Deployment to departments (**key implementation items**)
- Detailed implementation (contingency planning – self-diagnosis, self-correction and visual presentation of action)
- Monthly diagnosis (attention on the process rather than the target)
- President annual diagnosis (numerical targets, but also the process that underlies the results)

“**The eight essential points of hoshin kanri model**” (Kondo, 1998)

- Annual policy
- Medium- to long-term policy
- The establishment of quality policy
- Converting methodological policy into objective
- Policy composition - aims, targets and priority strategies
- Top-down and bottom-up deployment
- The meaning and practice of “catch-ball” in the deployment process
- Top management internal QC audits

“**The extended ten step hoshin kanri model**” (Jolayemi, 2008)

- Pre-planning Analysis (analysis of the organizations environment, both external and internal)
- Development of Mission statement
- Development of Value statement
- Development of Vision statement
- Long- and medium-term plans and goals
- Annual plan (vital few objectives) & Annual strategies (targets, means, performance measures, the annual planning table)
- Policy deployment and catchball process
- Integration, Implementation, daily management/daily control, and business fundamentals
- Reviews (Daily/Weekly/Monthly reviews + Annual review/ President’s diagnosis)
- Standardization

It is no surprise that the common bases of the alternatives above is the division in four broader phases, similar but not equalling the P(lan), D(o), C(heck), A(ct) phase in the PDCA methodology. In what we name the *outlining phase* the organizational position is determined. The outlining phase resembles the traditional design school planning model (cf Andrews, 1987; Mintzberg, 2000:35ff) where the method include traditional strategy analysis such as environmental analysis with the use of tools such as Porters Five forces, PESTEL as well as internal analysis of resources and capabilities.

This is followed by an *objective phase* in which long term plans or visions (often five year) and a one year plan is developed. The objective phase is initiated with the development of a vision or long term objective in a rather traditional top-down manner (cf Akao, 1991; Babich, 2005; Hutchins 2008). It is argued that there is a difference between the Japanese version of Hoshin Kanri and the “Western version” in these phases, whereas the later pay more attention to analysis and the formulation of objectives (Jolayemi, 2008). But even if the tools used are overlapping with traditional design school planning the outcomes differs substantially in the Hoshin Kanri approach, as the aim is not about the making of an encompassing strategic plan. On the contrary the aim is to keep objectives both holistic and delimited. Holistic as the overall objectives (vision) should be rather general and only state the overall direction. Delimited as the means to fulfil the overall objective will be limited to a few strategic issues or breakthrough objectives. The ability to cling to a few issues is seen as vital for the success of a Hoshin Kanri process.

In the third *operational phase*, the key words in all three alternative step-models above are deployment (policy deployment) and catchballing. Here the Hoshin Kanri approach deviates more from traditional methodologies. In design school planning strategy work in this phase is completed and it is only a question about implementing the plans developed by the strategists. As Mintzberg, (2000:60) describe it, in the planning model implementation should be close-ended and convergent and not allowing disturbances. Deployment and catchballing in the Hoshin Kanri approach are concepts that points in a different and somewhat challenging direction. They are concepts that when defined include terms as alignment, dialogue and consensus (Akao, 1991; Tennant and Roberts, 2001), implying a management style that is based on creative, flexible and responsive principles (ibid:292). Here the legacy from the “Management by Objectives” philosophy is clear, stating that when people have more control over their own work, they are more satisfied and productivity increase (Babich, 2005).

In practice this view is translated into a decentralized strategy work. Instead of producing the ultimate and detailed plan at the top of the organization, strategy work according to the Hoshin Kanri approach involves the setting of overall objectives (vision, long term plans) at the top, but these objectives are then interpreted in dialogue within the organization and all layers of employees are invited to work on their own sub-strategy of how to accomplish the overall objectives (Jolayemi, 2008). He defines catchball as referring to “*relative up, down, and horizontal discussions and joint analysis necessary for effective determination of objectives, strategies and means.*” (ibid, 2008:310).

In the fourth, *review phase*, some further key aspects of the Hoshin Kanri approach surface. One is the need for continuous process development indicating that the Hoshin Kanri process takes several cycles to initiate and never will be fully developed. And the second is the link between involvement in strategy work and the responsibility for executing the agreed actions. The difference between the traditional design school model and the Hoshin Kanri approach is here that the former often miss the balancing of authority and responsibility. Why should co-workers feel responsibility to carry out actions when they have no authority to define actions? (Mintzberg, 2000). The Hoshin approach on the other hand is “*about using a participative and shared commonality of direction, rather than top-down command and control. The over-arching principle is that everybody should be involved in strategy (work)*” (Witcher, 2014:88).

As hinted in the introduction is the PDCA thinking and a “Management by Objectives” approach vital prerequisites in Hoshin Kanri process. On the “tool-level” scholars suggest a number of methods that comes from the total quality management tradition. To give some flavors we briefly outline the content in two recent handbooks. Hutchins (2008) discuss themes and tools related to six sigma, lean manufacturing, quality circles, pareto diagrams, the kano model, fish-bone diagrams etc. in a comprehensive 280 page long book. Babich (2005) focus on only the administrative process and the PDCA thinking and provides the student with templates of how to administer the strategy work process. A popular tool to operationalize the PDCA logic is also the A3 methodology (Tennant and Roberts, 2001)

2.4 The template for initiation of Hoshin Kanri inspired strategy work

The theme of this paper is the initiation and start-up of strategy work inspired by the Hoshin Kanri approach. That is the outlining and objective phase in the overview above. As hinted previously these are two phases in which the Hoshin Kanri approach resembles traditional strategy approaches. The essence is a thorough mapping of the present conditions internally and externally and to develop (or refine) a vision at the top management level. As pointed out by Osada (1998) and stressed by Jolayemi (2008), these are two phases that are absolutely vital as they set out the direction of the proceeding activities. The general idea crystallizing from the literature review is that positioning and vision phases takes up about 10-15% of an average handbook in the subject. The two main messages are that a) there is a need for plenty of accurate facts in this phase and b) questions addressed in handbooks are rather abstract (ie., Who are we? What do we want to be? Etc.) (cf. Akao, 1991; Babich, 2005; Hutchins, 2008)

When outlining the tentative process in this project the general recipe from the Hoshin Kanri literature was combined with the pre-knowledge gained by the project team in other similar activities. This made us develop a process in two phases. *Phase one, familiarization*, consisted of two activities. In familiarization interviews with top management and owner representatives the aim was both to get to know the history of the company, the strategists in the company as well as the current situation. Depending on the management teams this could include several visits to the company. The design was that familiarization was done in individual interviews. In the second activity, shadowing, the idea was to enhance our understanding of the daily management of the company by following operations and strategy related meetings. That is visit for longer periods, i.e. one day, and follow operational processes.

This phase was there after followed by a *second formulation phase* in which two workshops were organized. Participants was the top management team. The theme of the workshops were an analysis of the present situation (Positioning) and an outlining of the vision for the future (Objectives). Well-known tools as SWOT, PESTEL, VRIN was to be introduced in the first workshop to outline the present situation and in the second workshop the aim was to introduce the A3 methodology in order to make a preliminary decision on the company vision.

3. METHOD

This paper reports from the first phase of a research project financed by The Swedish Governmental Agency for Innovation Systems (VINNOVA) 2013-2016. The project aims to adapt the Hoshin Kanri approach to enhance growth in small and medium sized companies. In the first phase, the study focused on the outlining and objective phases in the Hoshin Kanri approach and consisted of a literature review and the development and testing of a tentative approach. Above we have reported on our conclusions from the literature review, now we will present our empirical study and the testing of the tentative approach, outlined above.

The starting point for our empirical work was the multi-competences in our research team. The authors of this paper represent both theoretical knowledge of strategy and innovation work in SMEs, practical knowledge of both Hoshin Kanri implementation in large companies as well as lean management work in SMEs. The alliance between an university and a regional agency devoted to develop SMEs (Träcentrum) enhanced the access to suitable co-producing participants in the study.

We selected four companies as our co-producing participants in the study. Träcentrum or the lean coaches that participate in the research project spotted the need for systematic strategy work in these companies in previous visits. The companies is introduced below and thereafter we outline the process followed.

Company A is a niche-oriented saw-mill with 15 employees. After a successful past, the company has been suffering from an unplanned succession, volatility in exchange rates and changes in institutional rules over the last six years. The company was owned, and until recently managed by the owner. After the unplanned succession, the two daughters owns, and work in the company. Together with their spouses, they form an informal management team. The management team have no experience of long term visions or objectives nor lean activities.

Company B is a niche-oriented supplier to sport- and activity centers with 36 employees. The operations include production of sports utility, installation of sports utility, safety controls and a web-shop. The company is owned by the CEO. The CEO formed informal and unwritten long term visions and ideas. It has now been decided that his daughter should succeed the CEO, and the father, daughter and her spouse will make up the informal management team. The management team have no experience from lean inspired activities.

Company C is a sub-supplier of sheet metal with 80 employees in a highly competitive industry. A family owned company with several family members working in the company. Since one year, there existed a formal management group with seven participants (four family members). They have no written long term strategy. The company have recently followed a program introducing lean in production.

Company D is a manufacturer of modular buildings mainly for offices and schools with 150 employees in two sites. Company D is owned by a listed company. They have a formal management team consisting of four participants and an organised governance system with formal business plans. They attempted to introduce lean activities before, but have not succeed.

The time scheduled was tight as the process had to be managed within four months at the end of 2013. In order to secure the learning process we took the following actions. A) preparation of a fact sheet on each company, information compiled from previous contacts, homepages and official sources. B) the presence of two (often three) from the project team in all activities at the companies. All present took notes and afterwards they were transcribed within 24hours. C) A de-briefing session after each activity. The project team had between 30 min. and 2 hours of drive to the participating companies. I.e., plenty of time to plan and evaluate the specific activity. D) a systematic evaluation of experiences in regular project meetings, using the transcribed notes as a starting point.

In the following we present the empirical process and the eleven most important learning points. We define a "learning point" as an occasion when either vital assumptions in the tentative model was confirmed or

questioned. The empirical analyses of these occasions was done in stage C and D above and followed by a revised literature review in order to reach a further understanding. The result of this revision formed the platform for the following phase in the project and conclusions from the process are presented in the final paragraph of the paper.

4. THE PRACTICE OF INITIATING HOSHIN KANRI INSPIRED STRATEGY WORK

In the following table we summarize the activities undertaken in the four companies. After the table we address the learning points (11) within the process, finally we reflect on the most critical learnings from the process.

Activity/Company	Company A	Company B	Company C	Company D
Initial meeting with the CEO, signing the contract and deciding on how to proceed.	Sept. 24-Oct. 1	Sept. 24-Oct. 1	Sept. 24-Oct. 1	Sept. 24-Oct. 1
The Familiarization phase				
Familiarization/interviews	Oct. 30 and Dec. 12. Interviews with all four from informal mgmt team (1)	Oct. 30 interviews with all three from informal mgmt team (1)	Nov. 1 interview with two from mgmt team (out of seven) (2)	Nov. 13- Dec. 11 Interviews with chairman of the board and all four from the mgmt team. (3)
Shadowing			Dec. 10, participating observation at mgmt team meeting (4h) (4), (5)	
The Formularization phase				
Workshop one (Positioning)	Dec.18. (6)	Nov.29 (7)	Jan. 28. (8)	Jan. 21 (9)
Workshop two (Objectives)	Jan. 28. (10)	Jan. 21 (11)		

- (1) Initial familiarization interviews in company A and B stressed the importance of the internal organization when introducing the Hoshin Kanri approach. In Company A there was no formal managing director and no regular meetings. I.e. it became difficult to organize interviews. In company B all three in the management team worked in the office and it was easy to arrange meetings. Previous contacts were outstanding in company B when compared to the other three companies.
- (2) In Company C the management team consisted of seven. It was therefore decided that participating in a management team meeting would be more practical than interviewing all management team members.
- (3) As management team members and the chairman was geographically distant and buzzy, it was time consuming to arrange interviews. Lost vital time here.
- (4) Participating observation was successful. Two project members followed the management group of seven in a four hour meeting.
- (5) It was difficult to motivate participant observation in the remaining three companies. Mainly practical reasons (geographical distance, lack of time, difficulty to communicate the conceptual idea)
- (6) The first workshop in company A was dynamic. The systematic approach to positioning had to be abandoned after 90 minutes as the participants started to question the use of the meeting. After a break it was decided to start work on one pressing strategic issue, with the PDCA/A3 methodology. Participants soon saw a benefit in this approach and the meeting ended successfully.
- (7) The systematic approach to positioning worked out fine! A3 introduced.
- (8) As a learning from (5) above, we tested a new approach. The management team decided on a vital strategic issue and started to apply the PDCA/A3 methodology. Frustration was obvious after some time. Partly because leadership was lacking and partly because the issue chosen was a non-engager.
- (9) The management team in company D was geographically dispersed and had no frequent meetings. There was an obvious need of more homogenization of working procedures in the management group.
- (10) The second workshop in company A was successful, but the focus was still on the identified strategic issue. Within the discussion on this specific strategic issue also the long term objective was addressed and the need for adding facts became apparent to participants. No decisions was however made on objectives.
- (11) In company B, the tentative approach continued. With the help of the A3/PDCA methodology did the participants continue to identify long term objectives.

5. THE REVISITED INITIATION PROCESS

From the analysis the most critical learnings can be summarized as:

- The need for an extensive familiarization phase. In company B, the familiarization went on before the project started (conducted by Träcentrum) and was crucial for successful implementation of the original

tentative approach. **(1-4)**. However familiarization cannot be too extended, as this would affect the participants engagement in the project.

- The need for flexibility in the familiarization phase. Different tools as interviews, shadowing and diaries can be used, and the process can differ (see more on the process below). **(3,4)**
- A more extensive adaptation to the SME context in the formularization phase. SMEs are operational in nature, and there is an obvious need for an operational approach. This was obvious in company A and D where we had to adapt a more explicit “learning by doing methodology”. The outcome was that we started to address strategic issues, emerging in the familiarization phase, with the PDCA methodology. And this without any decided long term objectives. **(5-6, 8- 9)**
- The importance of identifying relevant strategic issues in the familiarization phase, which could be addressed in the formularization phase. In company C it was obvious that “nice and tidy in the office” not was an issue that engaged management. **(8)**

In our revised process to initiate Hoshin Kanri in SMEs we merge the phases presented in Chapter 2.3. The four phases identified in literature (outlining, objective, operationalization and review) and the two (similar) phases we developed in our tentative process (familiarization and formularization) is in this revised process partly merged.

Our conclusion is that the familiarization phase is vital and important. It is about getting to know each other and establish a level of trust. But, the familiarization is also about identifying the strategic issues that are most engaging to the management of the company. This is perhaps not the issues that an outsider, from a neutral analysis, identify as the most strategic issues, but it is the issues that are engaging management the most!

The familiarization is followed by a practicing of the Hoshin Kanri approach to strategy work. That is the extensive formulization phase is abandoned. Instead we start with phase three (operationalization). In this phase top management begin to work with the PDCA method in an A3 format, in order to understand and hopefully appreciate the inherent logic. This is done in order both to solve an engaging strategic issue to management, to operationalize the logic of Hoshin Kanri and to establish a working routine in the top management group. In most cases we assume that the following operationalization of this first strategic issue in sub-issues (catch-balling) will be limited to a small number of people. I.e., the first time(s) will not be a full-fledged deployment process in the entire organization.

The idea is that top management when practicing the PDCA thinking is forced to formulate more overall assumptions about the company. Assumptions that gradually transforms from general statements to shared convictions among owners and managers. Assumptions that after some time can be translated into long-term objectives and perhaps an encompassing vision. Just to give one example. When addressing the strategic issue of the future heating system in company A (a very engaging issue), the top management team eventually begun to discuss the long term ownership and management succession in the company. That is vital inputs to the formulation of long term objectives in a family owned firm.

6. CONCLUSION

The initiation of the Hoshin Kanri approach as presented in literature is not fully applicable in the SMEs context. There exist two reasons for this;

The first is the strategic and organizational maturity. The findings so-far show that the participating companies varied condierably in their maturity, which affected the introduction of Hoshin Kanri and time spend in the different phases. Our conclusion is that a Hoshin Kanri approach in the SME context has to be adaptable to differences in strategy and organisational maturity, and the familiarization phase surface as absolutley vital for a successful initiation. Based on our case companies we forsee a need in the future to adress both strategy work (with the Hoshin Kanri approach) as well as organizational and structural issues (develop an organizational structure in which development and deployment processes can be embedded)

The second reason for why the present Hoshin Kanri approach is not fully applicable is that the operational nature of SMEs, demand an initiation that engage the participants. There is a need to prove the value of the approach early in the process, as patience is limited. In the revised process the decision is to be more operational early in the process, in order to solve immediate issues, train participants in the thinking process. By this approach engagement will increase and Hoshin Kanri will be a prioritized method for strategy work.

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REFERENCES

- Achtenhagen, L., L. Melin and T. Mullern (2003). *Innovative Ways of Organizing. International Perspectives*. Sage Publications, London, UK.
- Achtenhagen, L., A. Melander, A. Rosengren and A. Standtoft (2014). High-Growth Firms and the Use of Formalized Control Systems. *International Journal of Management and Decision Making* (In publication process)
- Akao, Y. (1991). *Hoshin Kanri: Policy deployment for successful TQM*. Productivity Press, New York, NY.
- Andrews, K. R. (1987). *The Concept of Corporate Strategy*. Irwin, Homewood, Ill.
- Babisch, P. (2005). *Hoshin Handbook. Total Quality Engineering*. Poway, US.
- Drucker, P. (1954). *The Practice of Management*. New York.
- European Commission (2014). What is an SME?”, available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm (accessed 28 January 2014).
- Ghobadian, A. and D. Gallear (1997). TQM and organisation size. *International Journal of Operations & Production Management*, **Vol. 17, No. 2**, pp. 121-163
- Hudson, M., A. Smart and M. Bourne (2001). Theory and practice in SME performance measurement systems. *International Journal of Operation and Production Management*, **Vol. 21**, pp. 1096-1115.
- Hutchins, D. C. (2008). *Hoshin Kanri: the strategic approach to continuous improvement*. Gower Publishing, Farnham, UK.
- Hutzschenreuter, T. and I. Kleindienst (2006). Strategy-process research: what have we learned and what is still to be explored. *Journal of Management*, **Vol. 32, No.5**, pp. 673-720.
- Ishikawa, K. (1985). *What is total quality control? The Japanese way*. Prentice-Hall, Englewood Cliffs, N.J.
- Jolayemi, J. K. (2008). Hoshin kanri and hoshin process: A review and literature survey. *Total Quality Management*, **Vol. 19, No. 3**, pp. 295-320.
- Jones, O., A. Macpherson, R. Thorpe and A. Ghecham (2007). The evolution of business knowledge in SMEs: conceptualizing strategic space. *Strategic Change*, **Vol. 16**, pp. 281–294.
- Kondo, Y. (1998). Hoshin kanri-a participative way of quality management in Japan. *The TQM Magazine*, **Vol. 10, No. 6**, pp. 425-431.
- Kraus, S., Harms, R., Schwarz, E. (2008). Strategic business planning and success in small firms. *International Journal of Entrepreneurship and Innovation Management*, **Vol. 8, No.4**, pp. 381-396.
- Lee, R. G. and B. G. Dale. (1998). Policy deployment: an examination of the theory. *International Journal of Quality & Reliability Management*, **Vol. 15, No. 5**, pp. 520-540.
- Marksberry, P. W. (2011). The theory behind hoshin: a quantitative investigation of Toyota's strategic planning process. *International Journal of Business Innovation and Research*, **Vol. 5, No. 3**, pp. 347-370.
- Marsden, N. (1998). The use of hoshin kanri planning and deployment systems in the service sector: An exploration. *Total Quality Management*, **Vol. 9, No. 4-5**, pp 167-171.
- Mintzberg, H. (2000). *The Rise and Fall of Strategic Planning*. Prentice Hall. London, UK.
- Nutek (2011). Tillväxtpöjligheter och hinder för svenska små och medelstora företag. Info 0359.
- Osada, H. (1998). Strategic management by policy in total quality management. *Strategic Change*, **Vol. 7, No. 5**, pp. 277–287.
- Tennant, C. (2007). Measuring business transformation at a small manufacturing enterprise in the UK. *Measuring Business Excellence*, **Vol. 11, No. 4**, pp. 66-74.
- Tennant, C. and P. Roberts (2001). Hoshin Kanri: a tool for strategic policy deployment. *Knowledge and Process Management*, **Vol. 8, No. 4**, pp. 262-269.
- Vaara, E. and R. Whittington (2012). Strategy-as-Practice: Taking Social Practices Seriously. *The Academy of Management Annals*, Vol. 6, Iss. 1, pp. 285-336.
- Watson, G. H. (2005). Design and Execution of a Collaborative Business Strategy. *Journal For Quality & Participation*, **Vol. 28, No. 4**, pp. 4-9.
- Witcher, B. J. (2013). Hoshin Kanri through the eyes of English Language Texts. Ryukoku University Institutional Repository. Departmental Bulletin Paper, pp. 25-2.
- Witcher, B. J. and R. Butterworth (1997). Hoshin Kanri: a preliminary overview. *Total Quality Management*, **Vol. 8, No. 2-3**, pp. 319-323.
- Witcher, B. J. and R. Butterworth (1999). Hoshin kanri: how Xerox manages, *Long Range Planning* **Vol. 32, No. 3**, pp. 323-332.
- Witcher, B. J. and V. S. Chau (2007). Balanced scorecard and hoshin kanri: dynamic capabilities for managing strategic fit, *Management Decision*, **Vol. 45 Iss: 3**, pp.518 – 538.