

# Tämä on rinnakkaistallennettu versio alkuperäisestä julkaisusta.

Tämä on julkaisun final draft -versio. HUOM.! Versio voi poiketa alkuperäisestä julkaisusta sivunumeroinnin, typografian ja kuvituksen osalta.

Käytä viittauksessa alkuperäistä lähdettä:

Reunanen T., Maijala R. (2018) Management Style, Focus and Purpose in Development of LEAN in University Hospital. In: Kantola J., Barath T., Nazir S. (eds) Advances in Human Factors, Business Management and Leadership. AHFE 2017. Advances in Intelligent Systems and Computing, vol 594. Springer, Cham

## DOI: https://doi.org/10.1007/978-3-319-60372-8\_6

Kaikki julkaisut Turun AMK:n rinnakkaistallennettujen julkaisujen kokoelmassa Theseuksessa ovat tekijänoikeussäännösten alaisia. Kokoelman tai sen osien käyttö on sallittu sähköisessä muodossa tai tulosteena vain henkilökohtaiseen, ei-kaupalliseen tutkimus- ja opetuskäyttöön. Muuhun käyttöön on hankittava tekijänoikeuden haltijan lupa.

# This is a self-archived version of the original publication.

The self-archived version is a final draft of the original publication. NB. The self-archived version may differ from the original in pagination, typographical details and illustrations.

To cite this, use the original publication:

Reunanen T., Maijala R. (2018) Management Style, Focus and Purpose in Development of LEAN in University Hospital. In: Kantola J., Barath T., Nazir S. (eds) Advances in Human Factors, Business Management and Leadership. AHFE 2017. Advances in Intelligent Systems and Computing, vol 594. Springer, Cham

# DOI: https://doi.org/10.1007/978-3-319-60372-8\_6

All material supplied via TUAS self-archived publications collection in Theseus repository is protected by copyright laws. Use of all or part of any of the repository collections is permitted only for personal non-commercial, research or educational purposes in digital and print form. You must obtain permission for any other use.

# Management Style, Focus and Purpose in Development of LEAN in University Hospital

Tero Reunanen<sup>1</sup> Riikka Maijala<sup>2</sup> 1) Turku University of Applied Sciences, Finland, Tampere University of Technology, Finland 2) Turku University hospital, University of Turku.

**Abstract.** In the world of constant change, nations, societies, and all public institutions have to adapt as well as the private companies. Today's rapid turmoil in economy caused by globalization and changes in world, has forced, leaders and managers in public institutions as well as private organizations to adapt and change their organizations' cultures with their own management systems and styles.

Different situational management theories and approaches are scrutinized in this study. Literature review part is concentrating in management styles, focus and purpose. Which are classic approaches in these domains, what boundary conditions and possibilities these approaches give to leaders and managers? Ontology for management style, focus, and purpose is created in this study. Study also gives the preliminary frame for university hospital leaders when inspecting possibility to go Lean management. This article points out future research needs.

Keywords: Management · Style · Focus · Purpose · Ontology · LEAN ·

## 1 Management

When thinking management as a discipline, managers practice management. It's an organ of leadership, and it consists of three concrete responsibilities: pointing out a direction, setting goals according to mission and organizing resources in order to achieve goals.[1] Pointing out a direction can be understood as creating the purpose for the organization. This purpose could be done by setting the mission and creating the vision for organization. Leadership and management literature is hardly consistent when classifying activities clearly into leadership or management. Drucker and Maciariello [2] suggest that there seems to be consensus that providing vision, values, competence, standards, encouragement, optimism, and spirit sustaining are more clearly leadership activities and objective setting, organizing, motivating, assessing progress, and developing people are to be seen as management activities.

#### 1.1 Mission

Creating the purpose is handled here as creating mission. Organizations' missions are stated typically in mission statements. Mission statements are thought to be powerful tools for providing value for customers and other stakeholders [3][4]. From literature different objectives for mission statements are found. Following objectives has been identified for mission statements. Mission statements are declarations of the firm's direction [5][6], acts as a route in order to achieve strategic objectives[7][8] and facilitates strategy formulation[9][10]. Mission statements are identifying boundaries that keeps

organization out from unrelated or inappropriate activities [5], creates control mechanism over the behaviour of employees and creating a balance between interests of various stakeholders[11][12][13]. Statements also define business domain [14][15][16] i.e. give an answer to fundamental question of Drucker[1] "What business we are in?" Mission statements help employees to make non-routine decisions [5], by providing framework for decision making [9]. Statements give motivation and inspiration for employees [17][18]. Mission statements unite organization and give common purpose for organization [19] [20] [6]. They also increase organizational commitment [21]. Mission statement expresses organization's values [6][19] and points out the competencies and unique strengths of an organization that are providing competitive success [22]

Although there are no clear scientific results that mission statements increase the financial performance of an organization, [12][19][23][24][25] an importance is found for mission statements and linkage between the performance of organization and mission statements.[6][21][26] They should include stakeholders [27][28], especially employees and society [6], special components [4][23][29], such as values and philosophy[6], but the causality is hard to prove. Whether a successful firm emphasize value statements or value statements are resulting from a better performance is unknown.[6] Some of recent researchers have come to a conclusion when the approach to direct impact between performance and mission statement is not explaining enough, then an indirect approaches should be utilized [30][31]. Especially indirect effect i.e. mediated effect by organizational commitment between a mission statement and organizational performance seems to be significant. [21]

Considering previous researches and their results it could be said that, creating the mission for organization is more useful than harmful and it will give some advantage to leaders when leading the organization. When stating the organizations mission, it should include at least following aspects: 1) Direction and goals for organization, 2) General boundaries where and how it should perform its business 3) Framework for employees to make decisions, 4) Gives purpose to an organization and expresses it to stakeholders, 5) Statement about organization's values, 6) Expression of organizations competences and strengths, 7) Motivational part to motivate and inspire employees, 8) Increasement of organizational commitment, and 9) Enhancement of organization's performance. From these aspects the first six ones should be incorporated into organizations mission by management and latter three ones are results from doing former ones well.

Since mission is proven to be so important for organizations, it has a self-righteous place to be set in management purpose ontology.

#### 1.2 Organizing resources

The resource based view (RBV) can be thought to be one of the points of view in management. Barney [32] stated that resources of a firm, which are rare, valuable and hard to substitute, are a basis for competitive advantage. According to Barney, "firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness". Resources have two forms: tangible and intangible [33][34], where tangible ones are easier to observe than intangible. An good example of intangible resources is tacit knowledge. Two types

of knowledge have been widely recognized, explicit and tacit [35]. Explicit knowledge is to be understood as a tangible resource and tacit knowledge is a characteristic example of an intangible resource. Whichever the case may be, managers shouldnot just concentrate on tangible resources. As a prerequisite, the resources must be recognized and widely enough analyzed without certain object orientation, so that those resources could also be adjusted in time towards new products and services required [36]. Companies' capability for change is highlighted by Prahalad and Hamel by a statement that core competence of a company is "Management's ability to consolidate corporate wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities" i.e. resources should be a flexible entity. Figure two is illustrating this need of flexibility in resources.

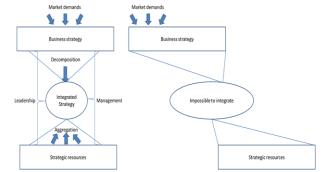


Fig. 2. Resources in Strategy definition (Applied from Thun [37])

When resources are in line with business strategy, integration of market driven strategy and RBV is possible. When organizations resources are ill fit to market demands, i.e. market demands cannot be satisfied with them, integration is impossible. This means that management should integrate resources, results, goals and objectives as a one entity. As in many cases, organization's goals and objectives are more easily to be adjusted or changed, after all they are in most cases defined by organization, than their resources, in management focus ontology resources is to set as first to be concentrated.

A resource management process can be divided into four distinctive steps: 1) efficient acquisition, 2) bundling/combining, 3) positioning, and 4) maintenance/protection. [38] Acquisition possesses two tasks: minimizing the cost of the resource and gaining value from the resource. [39] Bundling/combining means that single resources are bundled and combined to a set of a "higher order resources" which are more complex, harder to copy and provides more valued products and services. Positioning of resources means that resources should be provided so that customers can find them. Fast change in organizations environment causes changes in competitive conditions. This creates the requirement for managers to adjust frequently their resource management to ensure an attractive range of strategic options. [28] Otherwise company may end up to position illustrated at right in figure 2.

Another very crucial point of view has to be stated concerning management's focus on resources. Resources can be internal resources, which organization possesses and external resources which organization purchases from their supply chain. Internal resources are easier to observe by the manager, but it has to be remembered that strategically managed interactions with suppliers provide competitive advantage for organizations. One of the core issues in RBV is that organizations can enhance their resource capital by co-developing capabilities with suppliers, as well as engaging in sourcing. [40][41][42][43]

Considering all of these aspects resources should be set in the management's focus ontology. When inspecting Lean point of view to organizing resource focus, Lean improvements are requiring commitment to resources, both financial and manpower. [44][45][46][47][48]

#### 1.3 Setting goals and objectives

Zaccaro & Klimoski [49] stated that one of the core responsibilities of a leader is to direct followers towards organizational purposes by setting goals. One purpose of managerial work was to set goals and objectives. They can be divided into eight key areas: marketing, innovation, financial resources, human resources, physical resources, productivity, social responsibility and profit. [50] These goals and objectives should be aligned to organizations mission, when setting them, i.e. trying to reach the vision and respecting the values, by proper measures and utilizing the strength, and avoiding weaknesses.

Several researches show that setting goals has a great impact on employee performance, satisfaction, and organizational commitment. [51][52][53][54] Charismatic leaders who have confidence towards followers and communicate high expectations i.e. goals, will cause higher level acceptance and satisfaction in followers. [55] Leaders should be able to translate long-term challenges or goals into tangible contributions that followers can fulfill in goal-setting process. [51][52] It is also seen that higher performance levels are focused by followers if challenging goals are set by leaders [56]. But on the other hand challenging goals may have negative impact on organizational citizenship behavior when followers focus on achieving these goals. [57] Later on this result has been challenged and opposite results has been found in their study. [58] Effectiveness of goals implementation is also dependent how leaders encourage an open learning environment to facilitate the successful completion of the goals. [59][61] Leaders should encourage followers to question all assumptions, used methods and even goals, in order to find out better ways to implement these goals by specific actions and deliverables. Open learning environment helps followers to achieve deeper understanding of the goals. [59][60]

The effectiveness of the strategic goal implementation has been shown to depend on how clear these goals are, how well they are translated to specific objectives and how well they are linked to objectives of specific units or followers. [59][61] Avolio and Berson [62] found out that lesser consistency in articulation of strategic goals could lead to confusion and poorer alignment and also that the leaders should have a good ability to create agreement over organizational goals.

Therefore it is justified that one of the main purposes in management is to create goals from the mission and strategy and translate the goals into objectives for followers. Hence goals and objectives should also be included in management purpose ontology.

Heavyweight managers need to communicate well with top managers and project team members. [63] Support from managers at each level will be required [66]. Other

activities are communicating a clear vision and targets of improving [46][47][63][64][66], and providing the long-term vision, and objectives, for the work from top management level. [63][67]

## 1.4 Results and progress assessing

Assessing progress can be done only if the recent results is measured and compared with earlier results. Therefore measuring should be included as one activity under assessing the progress. Even that Drucker and Maciariello[2] are mentioning only people development, managers' responsibility in development of e.g. processes or working conditions can't be ignored. Therefore it would be more feasible to handle development as upper level activity which includes all development issues despite the object of development. Finding whether these development activities are successful, need for progress assessment is obvious. Organizations results are measured in different terms (profit, healed patients, served citizens etc.) and the criterion of success is extend to how these results are maximized. There is a possible pitfall of this measurement system and it is that the length of measurement is typically too short sighted, a quarter of a year or a year This fails to recognize difference between short-term profit sub-optimization and good organizational results in performance, which enable organizations success in future. A categorical example is "cost cutting manager" who neglects the organizations future in hunt for immediate results by ignoring e.g. R&D and HR development, not to mention investments to strategic assets. By cutting off these activities, cost cutting manager will lessen the fixed capital and assets and fastens the turnover of capital, which of course looks good, but s/he makes it by the expenses of future profits. In these cases managers are boosting productivity, not by enhancing actual output (actuality), but by decreasing capacity (capability) and as an end product decreases organization's performance. Beer's (68] model has three distinctive levels for organizational output: 1) Actuality, which is organization's reached results for now, 2) Capability which is organization's reachable results, as ideal situation, if they really succeed, with existing resources and constraints, and 3) Potentiality, which is organization's potential results, which can be reached by developing organization's resources and removing constraints, in feasible ways. Combination of these three outputs produces three distinctive indices: 1) Productivity, which is the ratio of actuality and capability, 2) Latency, which is the ratio of capability and potentiality, and 3) Performance, which is the ratio of actuality and potentiality but it is also the product of latency and productivity.

Therefore management's focus on assessing results and process should be linked to performance which is indicating the ratio between potentiality and actuality i.e. results in more than productivity. Otherwise organization's progress performance can be even negative. It has to be remembered that focus on progress and results should be set to all activities and not only to economic results and progress. Beer's [68] model seems to be suitable for all progress assessment if utilized right. Focus on results and on progress assessment are therefore to be set into management focus ontology.

The process of implementing Lean can be lengthy and, the time from initial commitment to enjoying the full benefits of a Lean management system, can take up to at least 4.5 years. [64]

#### 1.5 Organizational learning

In order to ensure that progress will be constant and organization is able to evolve, managers should focus also on organizational learning. Constant change in organizations environment is evident and organization should be able to adapt itself to it, if not even change the business. This approach could be called evolutionary approach. The basis of the evolutionary analogy is on comparing it to the classic theoretical analysis of evolutionary economics where focus is - instead of basic Darwinian biological processes - on markets, the routines of firms, path dependence and bounded rationality [69]. Evolutionary theories are comprehensive and it is common for evolutionary analogies that theories have to be dynamic, they deal with irreversible processes and they cover the impact of novelty as the ultimate source of self-transformation. Theories of wholly or partially self-organizing regulatory systems have increased in number and are used in most fields of science now. Within systems theory especially, the regulatory systems have been developed, and in general, they are systems equipped as to stabilize those parameters and processes that are necessary to its existence. Self-regulating systems then, are systems that are self-correcting itself through feedback, and such a selfcorrecting system can be called self-organizing if the system dynamics promotes certain processes within [70]. Learning as well as economic interaction are social and dynamic processes. The individual's process of learning and creative work is often characterized by the significant degrees of cumulativeness, disequilibrium situations and path dependence, but they may also be determined by the exogenous factors and therefore training projects, curricula and learning environment should be taken into account when inspecting learning as a whole. [71]

Organizational learning is to be seen as a primary source of competitive advantage [72][73][74][75][76][77]. Bureaucratic approach is to do things right and performance approach do the right things, learning approach in organizations is organizations create the capacity (move towards organizations potentiality cf. Beer [68]) to do both better [78][79][80]. Popper and Lipshitz [81] found that managers have three responsibilities in learning organization: 1) giving organizational learning a high priority, 2) enhancing collective learning by creating the right psychological and cultural conditions to, and 3) making contextual factors to ensure transfer of individual learning to the organizational level. This means that managers should change their mind—set form "command and control" mindset, to facilitative leaders who motivate through empowerment and focus to developing followers by serving as coaches and mentors [79][82][83] Amy [84] found that emotionally intelligent communication was one of the most prominent feature when facilitating learning in organizations but authoritarian, defensive and non-communicative behaviors were not positively effective.

Therefore if one of the managers' responsibilities is to keep organization as competitive as possible, organizational learning should be included in managerial focus ontology.

As Lean is targeting to continuous improvement, Lean, as whole, is very suitable philosophy for organizational learning. Tools of Lean Leadership and Management in Health Care is Gemba in which leaders go to the "shop floor" to examine the process and speak with the workers, in order to see the situation for one's own self, empower health-care employees, reinforce Lean practices and engages the leader in experiential learning about implementation [47][48][64][65]. Taking special attention to organizational culture was pointed clearly in former researches. As concrete actions, challenging the traditional and hierarchical culture, embracing the empowerment of front line healthcare staff [44][45][64] and fostering a culture of innovation and collaboration [48] was found important. Empowering the personnel and creating the trust and engagement [44][45][48][64][65][85], is in core of all management levels. Top level managers' responsibility to support [63][64], to remain engaged in Lean improvement and to be accessible for advice was highlighted [64][67]

#### 1.6 Framework for followers decision making

Management styles can be thought to define which kind of frameworks followers have for their decision making. The Simplest way, which is probably one of the most known, can be seen in the division that Lewin et al.[86] made to authoritarian, democratic and laissez-faire styles. [87] In the model these three distinctive styles give different levels of freedom for followers. As extreme ends of this model are mostly theoretical (full autocracy or full freedom are totalizations) most of the real world cases are to be set under democratic style. Therefore there should be done some different levels of democracy where followers possesses different levels of freedom and different boundary conditions in their decision making. Reunanen & Kaitonen [88] gathered most known leadership styles to one table in order ease to analyze and understand differences in democratic styles. One interesting approach for democratic is also from Markopoulos & Vanharanta [89][90]

As stated in former research [88] between the possible totalizations, there are different leadership styles in each approach and theory. These styles variate in regarding the level of freedom (to make decisions), level of followers' capability and competences. Styles also varies whether leader should orientate to tasks or humans, and that shows how complex and demanding followers work is. [88] Despite that the research was done for the leadership styles' ontology, in order to found out how leaders should lead, it also provides a frame for followers' decision making in management. Hence ontology for management style can be stated to include only three main categories: autocratic, democratic and freedom.

As for Leans point of view, former researches pointed out that management/leadership is a subordinate role, where the front-line workers design and improve the standards work, [44] because "everyone is an expert of his / her own work" [48] and that leaders have to lead from behind through other people and be like a pace-setter [65]. Visible management and leadership are typical for Lean [44][47][48][65]. Approach contains a strong visibility of leaders in critical activities [65], increased transparency [47] and need for leaders to operate as coaches and mentors which means that they can increase their teams' expertise two folded ways, directly in their work and in quality improvement itself [44][47][64][65][85][91] and former research found that leaders' lead by example and acting as a role model is meaningful [47][64].

## 2 Conclusions

This article was written in order to create scientifically solid ground for management development purposes revealing management focus, purpose and style ontologies. Research was done by literature research and ontologies were built by integrating knowledge from former researches under a management windshield entity. Article also points out issues from Lean management, especially from healthcare environment and integrates these issues into management ontologies. Therefore the approach of article is two folded, generic ontologies and first activities to utilize these.

The generic approach concluded: 1) purpose ontology, which includes mission, goals and objectives to be taken into account, 2) focus ontology which consists of organizational learning, assessing progress, results and resources for mangers to focus on and 3) management style ontology which gives three main styles, freedom (laissez-faire), democratic and autocratic for managers to utilize. It should be stated that under these main concepts there are countless different variations for managers to choose from. Figure 1 is illustrating the results of the generic part of this research.

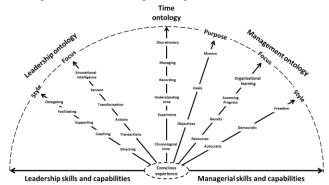


Fig. 1. Management ontology for purpose, focus and style

Lean part is used in this article as an example of utilization and therefore it is not as thorough as generic part, but it could be used in order to widen understanding how Lean management issues are integrated into traditional and tested management theories very easily. It seems that Lean management issues are already included in traditional management theories.

Further research should be done in order to find out more detailed activities under management issues and integration to leadership research. Leadership styles' ontology is connected to management style ontology in this article, but concrete activities from both, leadership and management, sides should be researched more. Also research regarding Lean management and its connections to traditional leadership and management theories as detailed level should be researched more.

## References

- Drucker, P., F. Management Tasks, Responsibilities, Practices. Harper & Row Publishers Inc., New York. (1985)
- Drucker, P., F., Maciariello, J., A. The effective executive in action. HarperCollins, New York (2006)
- 3. Bailey, J.A. Measuring your mission. Management Accounting 44(3), 44--47 (1996)
- Ireland, R. and Hitt, M. Mission statements: Importance, challenge and recommendations for development. Business Horizons 35(3), 34--43 (1992)
- Bartkus, B.R., Glassman, M. and McAfee, R.B. Mission statements: Are they smoke and mirrors? Business Horizons 43(6) 23--28 (2000)
- Bartkus, B., Glassman, M., & McAfee, B. Mission statement quality and financial performance. European Management Journal, 24(1) 86--94 (2006)
- 7. Mullane, J. V. The mission statement is a strategic tool: when used properly. Management Decision, 40(5) 448--455 (2002)
- Siciliano, J. I. A comparison of CEO and director perceptions of board involvement in strategy. Nonprofit and Voluntary Sector Quarterly, 27, 152--162 (2008)
- 9. Pearce, J., & Robinson, R. In Richard D. Irwin (Ed.), Formulation, implementation and control of competitive strategy. Boston, MA. (1991)
- 10.Piercy, N.F. and Morgan, N.A. Mission analysis: an operational approach. Journal of General Management 19(3) 1--19 (1994)
- 11.Bart, C. A comparison of mission statements and their rationales in innovative and non-innovative firms. International Journal of Technology Management, 16(1/2/3) 64--77 (1998)
- 12.Bart, C.K. and Baetz, M.C. The relationship between mission statements and firm performance: An exploratory study. The Journal of Management Studies 35(6) 823--853 (1998)
- 13.Hitt, M. A., Ireland, R. D., Hoskisson, R. E., Rowe, W. G., & Sheppard, J. P. Strategic management: Competitiveness and globalization. Toronto: Nelson Thompson Learning. (2002)
- 14.Abell, D.F. Managing with Dual Strategies: Mastering the Present, Preempting the Future. The Free Press, New York. (1993)
- 15.Porac, J.F. and Thomas, H. Cognitive categorizations and subjective rivalry among retailers in a small city. Journal of Applied Psychology 79, 54--66 (1994)
- 16.Wheelen, T.L. and Hunger, J.D. Strategic Management and Business Policy, Entering 21st Century Global Society. Addison-Wesley, Reading, MA. (1998)
- 17.Forbes, D., & Seena, S. The value of a mission statement in an association of not-for-profit hospitals. International Journal of Health Care Quality Assurance, 19(5), 409--419 (2006)
- Kirk, G., & Nolan, S. B. Nonprofit mission statement focus and financial performance. Nonprofit Management & Leadership, 20(4), 473--490 (2010)
- Bart, C.K. and Hupfer, M. Mission statements in Canadian hospitals. Journal of Health Organization and Management 18(2), 92--110 (2004)
- 20.Bartkus, B.R., Glassman, M. and McAfee, R.B. A Comparison of the quality of European, Japanese and U.S. Mission statements: A content analysis. Eur. Mngmt. J. 22, 393–401 (2004)
- 21.Macedo, I. M., Pinho, j. C. & Silva, A. M. Revisiting the link between mission statements and organizational performance in the non-profit sector: The mediating effect of organizational commitment. European Management Journal 34 (2016) 36--46 (2016)
- 22.Teece, D.J., Pisano, G. and Shuen, A. Dynamic capabilities and strategic management. Strategic Management Journal 18, 509--533 (1997)
- 23.Bart, C.K. Industrial firms and the power of mission. Ind. Marketing Management 26(4), 371--383 (1997)
- 24.Bart, C.K. and Tabone, J.C. Mission statement content and hospital performance in the Canadian not-for-profit health care sector. Health Care Management Review 24(3), 18--29 (1999)
- 25.O'Gorman, C. and Doran, R. Mission statements in small and medium-sized businesses. Journal of Small Business Management 37(4), 59--66 (1999)

- 26.Sidhu, J. Mission Statements: Is it time to shelve them? European Management Journal Vol. 21, No. 4, 439--446 (2003)
- 27.Bart, C.K. Sex, lies, and mission statements. Business Horizons 40(6), 9--18 (1997)
- 28.Leuthesser, L. and Kohli, C. Corporate identity: The role of mission statements. Business Horizons 40(3), 59--67 (1997)
- 29.Sufi, T. and Lyons, H. Mission statements exposed. International Journal of Contemporary Hospitality Management 15(4/5), 255--262 (2003)
- 30.Desmidt, S., Prinzie, A., & Decramer, A. Looking for the value of mission statements: a metaanalysis of 20 years of research. Management Decision, 49(3), 468--483 (2011)
- 31.Williams, R. I., Morrell, D. L., & Mullane, J. V. Reinvigorating the mission statement through top management commitment. Management Decision, 52(3), 446--459 (2014)
- 32.Barney, J., Firm resources and sustained competitive advantage. J. Mngmt 17, 99--120 (1991)
- 33.Hall R. A framework linking intangible resources and capabilities to sustainable competitive advantage. Strateg Manage J;14, 607—618 (1993)
- 34.Madhavan R, Grover R. From embedded knowledge to embodied knowledge: new product development as knowledge management. J Mark, 62, 1--12 (1998)
- 35. Polany M. The tacit dimension. Garden City, NY' Anchor Books, (1966)
- 36.Prahalad, C.K. & Hamel, G. The Core Competence of the Corporation. Harvard Business Review. Vol. 68 No. 3 pp.79--91 (1990)
- 37.Thun, J.H. Empirical Analysis of Manufacturing Strategy Implementation. International Journal of Production Economics. Vol. 113, 370--382 (2008)
- 38.Morgan RM. Relationship marketing and marketing strategy: the evolution of relationship strategy within the organization. In: Sheth J, Parvatiyar A, editors. Handbook of relationship marketing. Thousand Oaks (CA)7 SAGE Publications. 481--504 (2000)
- 39.Hunt SD, Morgan RM. The resource-advantage theory of competition: dynamics, path dependencies, and evolutionary dimensions. J Mark.,60(4),107-14 (1996)
- 40.McIvor, R., How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. J.Operat.Manag.27(1),4 5--63 (2009)
- 41.Cao, M., Zhang, Q. Supply chain collaboration: impact on collaborative advantage and firm performance. J.Operat.Manag.29(3), 163--180 (2010)
- 42.Allred, C.R., Fawcett, S.E., Wallin, C., Magnan, G.M. A dynamic collaboration capability as a source of competitive advantage. Decis.Sci.42(1), 129--161 (2011)
- 43.Squire, B.,Cousins, P.,Brown, S., Cooperation and knowledge transfer within buyer–supplier relationships: the moderating properties of trust, relationship duration and supplier performance. Br.J.Manag.20(4),461--477 (2009)
- 44.White, M.; Wells, J.; Butterworth T. Leadership, a key element of quality improvement in healthcare. Results from a literature review of " Lean Healthcare " and the Productive Ward Releasing time to care initiative. The International Journal of Leadership in Public Services. vol. 9, 90--108 (2013)
- 45.Al-Balushi, S.; Sohal, A.; Singh, P.; Al Hajri, A.; Al Farsi, Y.; Al Abri, R. Readiness factors for lean implementation in healthcare settings--a literature review. Journal of health organization and management, vol 28 (2), 135--53 (2014)
- 46.Lorden, A. Measures of Success: The Role of Human Factors in Lean Implementation in Healthcare. QMJ. vol. 21 (3) (2014)
- 47.Goodridge, D.; Westhorp, G.; Rotter, T.; Dobson, R.; Bath, B. Lean and leadership practices: development of an initial realist program theory. BMC Health Sevices Research. vol. 15:362 (2015)
- 48.Goodridge, D.; Westhorp, G.; Rotter, T.; Dobson, R.; Bath, B. Lean and leadership practices: development of an initial realist program theory. BMC Health Services Research. vol. 15:362 (2015)

- 49.Zaccaro, S. J., & Klimoski, R. J. The nature of organizational leadership: An introduction. In S. J. Zaccaro, & R. J. Klimoski (Eds.), The nature of organizational leadership (pp. 3–41). San Francisco, CA7 Jossey-Bass. (2001)
- 50.Drucker, P., F. The essential Drucker. HarperCollins, New York (2005)
- 51.Locke, E., & Latham, G. A theory of goal setting and task performance. Englewood Cliffs7 Prentice-Hall (1990)
- 52.Mento, A., Steel, R., & Karren, R. A meta-analytic study of the effects of goal setting on task performance: 1966–1984. Org. Behavior and Human Decision Processes, 39, 52--83 (1987)
- 53.Bycio, P., Hackett, R., & Allen, J. Further assessments of Bass's (1985) conceptualization of transactional and transformational leadership. J. Applied Psychology, 80, 468--478 (1995)
- 54.Podsakoff, P., MacKenzie, S., Moorman, R., & Fetter, R. Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. The Leadership Quarterly, 1, 107--142 (1990)
- 55.House, R. A theory of charismatic leadership. In J. G. Hunt, & L. L. Larson (Eds.), Leadership: The cutting edge. Carbondale, IL7 Southern Illinois University Press, 189--207 (1977)
- 56. Avolio, B. Full leadership development. Thousand Oaks, CA7 Sage Publications. (1999)
- 57.Goodwin, V. L., Wofford, J. C., & Whittington, J. L. A theoretical and empirical extension to the transformational leadership construct. J. of Org. Behavior, 22, 759--774 (2001)
- 58.Whittington J., Goodwin V., Murray B. Transformational leadership, goal difficulty, and job design: Independent and interactive effects on employee outcomes. The Leadership Quarterly 15 593–606 (2004)
- 59.Gillen, D. The leadership of learning: The core process of strategy implementation. In P. Flood, T. Dromgoole, S. J. Caroll, & L. Gorman (Eds.), Managing strategy implementation (pp. 138–151). Oxford, UK7 Blackwell. (2000)
- 60.Boal, K. B., & Hooijberg, R. Strategic leadership research: Moving on. Leadership Quarterly, 11, 515--549 (2001)
- 61.Goodman, P. S., Lerch, F. J., & Mukhopadhyay, T. Individual and organizational productivity: Linkages and processes. In D. H. Harris (Ed.), Organizational linkages: Understanding the productivity paradox (pp. 54–80). Washington, DC7 National Academy Press. (1994)
- 62. Avolio B., Berson Y. Transformational leadership and the dissemination of organizational goals: A case study of a telecommunication firm. The Leadership Quarterly 15 625--646 (2004)
- 63.Hwang, P., Hwang, D., Hong, P. Lean practices for quality results: a case illustration. International Journal of Health Care Quality Assurance. vol: 27 (8), pp: 729-741 (2014)
- 64.Aij, K H.; Simons, F., Widdershoven, G., Visse, M., Experiences of leaders in the implementation of Lean in a teaching hospital—barriers and facilitators in clinical practices: a qualitative study. BMJ Open. 3. (2013)
- 65.Steed, A. An exploration of the leadership attributes and methods associated with successful lean system deployments in acute care hospitals. Quality management in health care. vol: 21 (1), pp: 48-58 (2012)
- 66.D'Andreamatteo, A., Ianni. L., Lega, F., Sargiacomo, M. Lean in healthcare: A comprehensive review. Health Policy 119, pp. 1197-1209 (2015)
- 67.Johnson, R., Johnson J. Nursing Administration Quarterly From Toyota to the Bedside: Nurses Can Lead the Lean Way in Health Care Reform. Nursing Administration Quartely. vol: 36 (3), pp: 234-242 (2012)
- 68.Beer S. The Viable System Model: its provenance, development, methodology and pathology. Journal of the Operational Research Society, Vol 35 7--26 (1984)
- 69.Mannermaa, M. Tulevaisuudentutkimus tieteellisenä tutkimusalana. In a book: M. Vapaavuori (ed.), Miten tutkimme tulevaisuutta. Tulevaisuudentutkimusseura ry, Helsinki, Hap. 3, pp. 19--33 (1993)
- 70.Hooker, C.,A., Reason, Regulation, and Realism. Toward a Regulatory System Theory of Reason and Evolutionary Epistemology. State University of New York Press, Albany, (1995)

- 71.Reunanen, T., Valtanen, J., Windahl, R.: Evolutionary Approach to Modern Creative Engineering Studies at Turku University of Applied Sciences. International Conference on Engineering Education. 30 July 3 August 2012, Turku, Finland 2012 Proceedings (2012)
- 72.Appelbaum, S.H. and Gallagher, J. The competitive advantage of organizational learning. Journal of Workplace Learning, Vol. 12, 40--56 (2000)
- 73.De Geus, A.P. Planning as learning. HBR, Vol. 66 No. 2, 70--4 (1988)
- 74.Garratt, B. The learning organization 15 years on: some personal reflections. The Learning Organization, Vol. 6, 202--6 (1999)
- 75.Lei, D., Slocum, J.W. and Pitts, R.A. Designing organizations for competitive advantage: the power of unlearning and learning. Org. Dynamics, Vol. 27 No. 3, 24--38 (1999)
- 76.Slater, S.F. and Narver, J.C. Market orientation and the learning organization. Journal of Marketing, Vol. 59 No. 3, 63--74 (1995)
- 77.Thomas, K. and Allen, S. The learning organization: a meta-analysis of themes in literature. The Learning Organization, Vol. 13, 123--39 (2006)
- 78.Daft, R.L. and Huber, G.P. How organizations learn: a communication framework. in DiTomaso, N. and Bacharach, S.B. (Eds), Research in the Sociology of Organizations, Vol. 5, JAI Press, Greenwich, CT, 1--36 (1987)
- 79.Hitt, W.D. The learning organization: some reflections on organizational renewal. Leadership & Organization Development Journal, Vol. 16 No. 8, 17--25 (1995)
- 80.Senge, P.M. The Fifth Discipline: The Art and Practice of the Learning Organization, Doubleday, New York, NY, (1990)
- 81.Popper, M. and Lipshitz, R. Installing mechanisms and instilling values: the role of leaders in organizational learning. The Learning Organization, Vol. 7, 135--44 (2000)
- 82.Ellinger, A.D. and Bostrom, R.P. Managerial coaching behaviors in learning organizations. Journal of Management Development, Vol. 18, 752--71 (1999)
- 83.Goh, S.C. Toward a learning organization: the strategic building blocks. SAM Advanced Management Journal, Vol. 63 No. 2, 15--22 (1998)
- 84.Amy, A.H.: Leaders as facilitators of individual and organizational learning. Leadership & Organization Development Journal vol. 29, no. 3, 212--234 (2007)
- 85.Aij, KH.; Aernoudts, R.; Joosten, G. Leadership in Health Services"A qualitative evaluation of a pilot leadership programme for dentists", Leadership in Manager traits and quality-ofcare performance in hospitals.Leadership in Health Services Leadership in Health Services Health Services. vol: 28 (3), 200-215 (2015)
- 86.Lewin, K., Lippit, R., White, R.K.: Patterns of aggressive behavior in experimentally created social climates. Journal of Social Psychology, vol. 10, 271--301 (1939)
- 87. White, J.H.R.: Successful supervision. McGraw-Hill, London (1975)
- 88.Reunanen, T., Kaitonen, J. Different Roles in Leadership Styles in Modern Organization. Advances in Intelligent Systems and Computing 498. Springer. Switzerland, 251--262 (2016)
- 89. Markopoulos E., Vanharanta H.: Democratic Culture Paradigm for Organizational Management and Leadership Strategies The Company Democracy Model, Proceedings of the 5<sup>th</sup> International Conference on Applied Human Factors and Ergonomics AHFE 2014, Kraków, Poland, 19-23 July 2014 (2014)
- 90.Markopoulos E., Vanharanta H.: Space for Company Democracy. Advances in Intelligent Systems and Computing 498. Springer. Switzerland (2016)
- Aij, KH.; Visse, M.; Widdeshoven, G. Lean leadership: an ethnographic study. Leadership in Health Services.vol 28 (2), 119--134 (2015)