

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**ScienceDirect**

Procedia - Social and Behavioral Sciences 110 (2014) 871 – 878

**Procedia**  
Social and Behavioral Sciences

Contemporary Issues in Business, Management and Education 2013

## Industrial structures as competitive factor in organization development

Vladimir Shatrevich<sup>a\*</sup><sup>a</sup>*Riga Technical University, Kalnciema street 6, LV-1048, Riga, Latvia*

---

### Abstract

This paper analyses Organization Development theory, thinking of structure as important factor for company competitiveness. Company's structure is presented as important instrument Organization Development theory, author broadly analyses the change process as core point in building company structure, the level of responsiveness of organizational structure to external and internal environment fluctuations. The change concept in organization structure is discussed from the efficiency point. Organization Structure models are presented as change instrument for controlling environmental change. The process of change is in focus in this paper, soon as external environment is becoming more and more dynamic and unpredictable.

© 2014 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and peer-review under responsibility of the Contemporary Issues in Business, Management and Education conference.

*Keywords:* organization structures; management; industrial organization, development theory.

---

### 1. Introduction

Organization development (OD) is a new term which means a conceptual, organization-wide effort to increase an organization's effectiveness and viability. Industrial organization (IO) economics contributes to company success. IO economics suggests an effective structure to conduct and performance. To sustain for the company in the marketplace, company's strategy focus on building competitive advantages over the competitors, usually by assessing what competitors do and striving to do it better. Organizational structure plays a key role in an enterprise's ability to function effectively by ensuring the implementation of chosen strategies, putting right people in the right

---

\*Corresponding author.

E-mail address: [volodja80@inbox.lv](mailto:volodja80@inbox.lv)

jobs and enabling achievement of short term and long term goals more successfully. OD was irreversibly heightened more than 30 years ago by the contribution of Burrell and Morgan (Burrell & Morgan, 1979), in their influential *Sociological Paradigms and Organizational Analysis*. Burrell and Morgan undertook a significant effort at uncovering the underlying theoretical underpinnings of various competing perspectives on the nature of organizational functioning.

One of the most important distinctions made is Weick's (Weick's, 1979, 1995) redirecting attention from organizations to Organizing. Focusing on Organizing, Weick has argued that organizations are not ready-made entities with predefined properties waiting to be discovered by the researcher, as, for example, the famous Aston studies had assumed (Pugh, 1981), but systems of interaction that become organized.

The shift from seeing change as a fact, thus approaching it as a succession of states, to seeing change as permanent in organizations, has led several researchers to talk about 'organizational becoming' (Tsoukas & Chia, 2002) and continuous improvisation (Orlikowski, 1996, Weick, 1998). Organizational analysis could be engaged from two different levels. Viewed holistically as a functioning entity, there is a traditional empiricist science perspective that sees organizations as systems (e.g., Bertalanffy, 1973, Boulding, 1956).

## 2. Structure and Design

The difference between organization structure and organizational design can be confusing. Think of structure as the organization's basis, the fundamental framework and shape of the organization usually represented in the organization chart. Organization design relates to the various elements that make up structure. An effective organization structure and design is one that optimizes the performance of the organization and its members by ensuring that tasks, work activities and people are organized in such a way that goals are achieved. An efficient organization structure and design is one that uses the most appropriate type and amount of resources (e.g., money, materials, people) to achieve the goals.

But organization structure and design are not just a means of ensuring work and activities are structured and coordinated in the most efficient way, an effective structure also aids planning, decision making and minimizes work-related problems and conflict between departments and functions due to competing goals or unclear work expectations. Whereas early classical and scientific management studies focus on finding the one best way of structuring an organization (e.g., Weber's bureaucracy), contingency theorists argue there is no one organization structure and design that is appropriate to every organization – instead, managers need to understand which organization structure is most appropriate given their organization's goals, type of technology, product or service, and the environmental demands and constraints.

Managers therefore need to understand how to create an organization structure and design that takes into account all these contingencies and is both effective and efficient. To do so, they need to be able to analyse their own organization and its environment, determine the most appropriate design, implement, continually monitor and revise the structure and design to ensure it remains effective.

## 3. Change concept in organization structure

Kurt Lewin played a key role in the evolution of organization development as it is known today. As early as World War II, Lewin experimented with a collaborative change process (involving himself as consultant and a client group) based on a three-step process of planning, taking action, and measuring results. This was the forerunner of action research, an important element of OD, which will be discussed later.

Douglas McGregor and Richard Beckhard while "consulting together at General Mills in the 1950's, the two coined the term organizational development (OD) to describe an innovative bottoms-up change effort that fit no traditional consulting categories" (Weisbord, 1987).

Organization development (OD) is a new term which means a conceptual, organization-wide effort to increase an organization's effectiveness and viability. The core of OD is organization – a group working toward one or more shared goal(s), and development – the process an organization uses to become more effective over time at achieving its goals. Warren Bennis (Bennis, 1976) has referred to OD as a response to change, a complex educational strategy intended to change the beliefs, attitudes, values, and structure of an organization so that it can better adapt to new technologies, markets, challenges, and the dizzying rate of change itself. OD is neither "anything done to better an organization" nor is it "the training function of the organization"; it is a particular kind of change process designed

to bring about a particular kind of end result. OD can involve interventions in the organization's "processes," using behavioural science knowledge organizational reflection, system improvement, planning and self-analysis. °

Organization Development (OD) is addressed to a process of planned change (Weisbord, 2004), the shift to an environment of constant change calls for new models and processes by which change is addressed in organizations. The challenge of change in organizations has been a central point of dialogue in organization science from its very beginning. The concept of change in organizations, has moved well beyond the need expressed by Frederick Taylor (Burke, 2002; Weisbord, 2004) and simply understands, what is involved in change (Copley, 1923) to a vast collection of change processes and philosophies.

This variety of perspectives on change has also posed a challenge to the field of organization development (OD) itself. The world no longer moves in incremental steps, but rather in significant leaps that call for new modes of effecting change.

The need to understand the issue of change has become more and more apparent in an age of “permanent whitewater” (Marshak, 1993; Vaill, 1989; Weisbord, 2004) in which information, technology, markets, and people are emerging and advancing at breakneck speed (Beer, 2001; Marshak, 2002).

If organizations become stationary for too long, it is inevitable that the gap will continue to widen and organization ability to reach the planned change will quickly diminish. To remain in shape to make these moves requires the development of organizational agility (Shafer, 2001) and the resultant need for organizations to be in constant movement.

This leads us to understand the nature of change in organizations not only from the measure of the ability to manage change, but also from a common framework by which organizations have been able to keep pace with change (Marshak, 2002) and in doing so, outperform other organizations.

These thoughts (Cooperrider & Sekerka, 2003; Gergen & Gergen, 2003) lead an organization to act with the ability to respond to a rapidly changing environment. This ability to rapidly transform is what allows certain organizations to survive (Brown & Eisenhardt, 1997), outperform, and create the appearance of “sustained performance” (Beer, 2001).

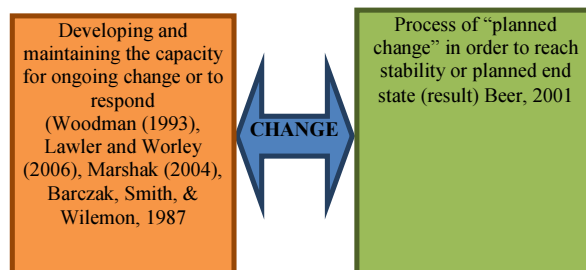


Fig. 1. Nature of change for organization

Marshak (2004), suggests that change is no longer about driving for stability or some planned end state, but rather is about developing and maintaining the capacity for ongoing change. Woodman (1993) states, that the development of continuously high-performing organizations requires approaches that move beyond these dualities to enable adaptive organizations capable of repeatedly transforming and reinventing themselves.

Traditional, Lewinian (see Model) understandings are inadequate for explaining the kinds of change organizations are experiencing today – change that is at one and the same time transformational and transactional (Burke & Litwin, 1992), evolutionary and revolutionary (Porras & Robertson, 1992), episodic and continuous (Marshak, 1993; Weick & Quinn, 1999).

Wendell L French and Cecil Bell defined organization development (OD) at one point as "organization improvement through action research". If one idea can be said to summarize OD's underlying philosophy, it would be action research as it was conceptualized by Kurt Lewin and later elaborated and expanded on by other behavioural scientists

Frederick Taylor acknowledged the impact that change had on his ability to make improvements in organizations (Burke, 2002; Weisbord, 2004). He was quoted as saying that “before starting any radical change...it is desirable that the directors and the important owners understand what is involved in the change” (Copley, 1923). The concept of

change in organizations has moved well beyond the need to simply understand what is involved in change to an ever-expanding list of change processes and philosophies. The field of organization development (OD) itself is now challenged by its lack of a core, shared theory or common approach to change (Bradford & Burke, 2004).

The shift to an environment of constant change calls for new models and processes by which change is addressed in organizations.

Peter Drucker (1995) stated that the organization that would succeed in this new environment was one that played the role of destabilizer, meaning that it was focused on using knowledge in the moment to guide its actions. The organization for this century must be built for constant change.

The nature of organizations is seen as natural and emergent (Morgan, 1997). While addressing the nature of organizations as complex and dynamic systems, these complicated phenomena and the contradictions they raise are ignored as incongruent and inconsistent and are therefore often overlooked (Quinn & Cameron, 1988).

The emergence of OD itself has much of its early roots in the application of these methods at the systems level of an organization, with the intention of leading some sense of controlled or planned change effort for the client organization (Burke, 2002).

The Burke-Litwin model (*Figure 2*) is significant as a bridge to emerging models and concepts of organizational change due to its dual nature of addressing both the transactional and transformational aspects of change. The model, which emerged out of practice in 1987 and based on the work around organizational climate conducted by Litwin (Burke, 2002), provides a systemic view of the influencers of organization change. It does not propose a start or end point of the change process, but rather introduces 12 key change points, with the external environment as a main input and individual and organizational performance as output (Burke & Litwin, 1992).

Key to this discussion is not only the systemic perspective this model provides by addressing these 12 key elements, but also the dual transformational and transactional dimensions that begin to address a critical balance (Burke, 2002) when effecting organizational change. The upper portion of this model delves into the transformational factors of change: environment, mission, strategy, leadership and culture. The model suggests that changes in these elements have broad systemic impact, creating revolutionary change for an organization (Burke, 2002).

This distinction is central to any transformational change process and is potentially best captured by the research of Porras and Silvers (Porras and Silvers, 1991) and represented in the following model by Porras and Robertson (Porras and Robertson, 1992).

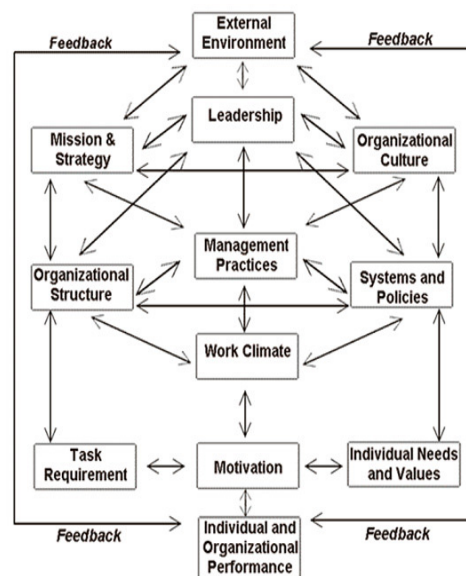


Fig. 2. The Burke-Litwin Model of Organizational Performance and Change

In the Porras and Robertson model, first order change represents those change actions focused on continuous improvement efforts; they are developmental in nature and take evolutionary or incremental steps towards change. In keeping with the traditional definition Porras and Silvers (Porras and Silvers 1991) label OD as a first order planned change process. Second order change refers to more radical change that takes on a transformational or revolutionary nature.

This approach in saying that change can be both continuous and revolutionary. Linear paths, steps or engineering-like flow charts (Luscher, Lewis, & Ingram, 2006; Poole & Van de Ven 1989; Smith & Berg, 1987) in organizational science; there is a need for both transformation and preservation in order to provide effective change (Adler, 1988; Volberda, 1996; Weick, 1982).

There is a growing movement to look at change from a new perspective, with a greater focus on dialogue and a proposition that change is more an evolving process of collectively sharing and constructing new meaning (Anderson, 2005) with the focus now being the development and transformation of meaning during the change process itself.

#### **4. Organizational structures as change instrument**

In looking at the various major approaches being used to introduce organization structures, an author chooses a "change distribution" approach. Organization development (OD) is a new term which means a conceptual, organization-wide effort to increase an organization's effectiveness and viability.

The objective of OD is to improve the organization's capacity to handle its internal and external functioning and relationships – the same is for organization structure. This would include such things as improved interpersonal and group processes, more effective communication, enhanced ability to cope with organizational problems of all kinds, more effective decision processes, more appropriate leadership style, improved skill in dealing with destructive conflict, and higher levels of trust and cooperation among organizational members. These objectives stem from a value system based on an optimistic view of the nature of man – that man in a supportive environment is capable of achieving higher levels of development and accomplishment. Essential to organization development and effectiveness is the scientific method – inquiry, a rigorous search for causes, experimental testing of hypotheses, and review of results.

The ultimate aim of OD practitioners is to "work themselves out of a job" by leaving the client organization with a set of tools, behaviours, attitudes, and an action plan with which to monitor its own state of health and to take corrective steps toward its own renewal and development. This is consistent with the systems concept of feedback as a regulatory and corrective mechanism. The same mechanisms are used by organization structures.

Organization Development (OD) is addressed to a process of planned change (Weisbord, 2004), the shift to an environment of constant change calls for new models and processes by which change is addressed in organizations. The challenge of change in organizations has been a central point of dialogue in organization science from its very beginning.

The emergence of OD itself has much of its early roots in the application of these methods at the systems level of an organization, with the intention of leading some sense of controlled or planned change effort for the client organization (Burke, 2002).

Company change completely relies on company structure. Organizational structure plays a key role in an enterprise's ability to function effectively by ensuring the implementation of chosen strategies, putting right people in the right jobs and enabling achievement of short term and long term goals more successfully.

Some theorists have concentrated on internal characteristics of the organization as determinants of change.

Chandler advanced the idea proposing the hypothesis that "structure follows strategy," his study identified strategy as an intervening variable between environment and organization structure, with complexity in the product-market sectors identified as the key external variable in the strategy/ structure decision. Building on Chandler's data, Scott (Scott, 1988) developed a three-stage model of how organizations develop under the pressure of increasing complexity: from 1) an entrepreneurial stage to 2) a single product or functionally organized stage to 3) a divisionalised stage based on diversification.

Michel Foucault (Foucault, 1970), in *The Order of Things*, notes that each historical epoch brings with it a different conception of what it means to know and that this is itself grounded on the epoch's experience of order.

In paper are analysed the organization structures and found that they are follows organization response to

external environment. Organizational change toward sustainability requires organizations to innovate their systems (Bertalanffy, 1955; Morgan, 1996; Schwandt & Szabla, 2007), structures (Giddens, 1984), and processes (Wheatley, 1992).

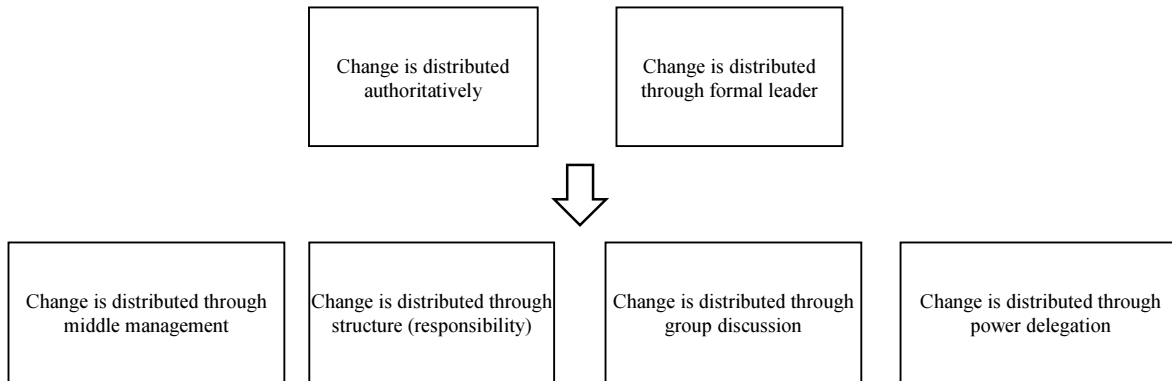


Fig. 3. Model of Industrial Organization structures through change

Author points, that this approach is needed in future changes, organization structure corresponds to change distribution.

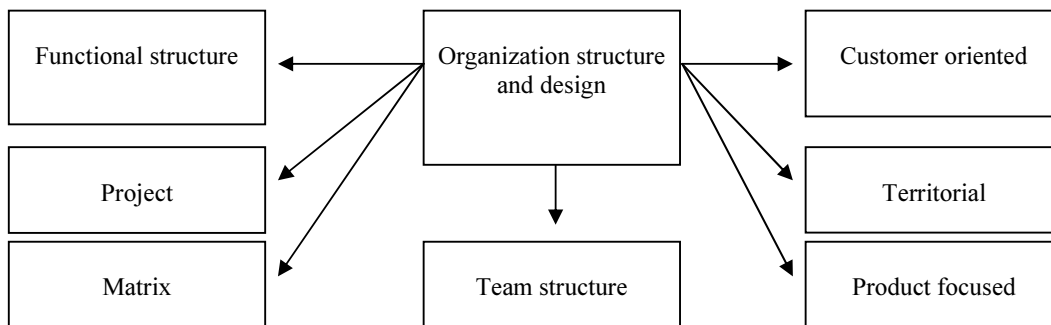


Fig. 4. Industrial Organization structures

For organizations to be successful at innovation, alliances must be created between and among organizations at all levels of society so that better solutions may be determined. To incorporate sustainable development-related innovations into organizations, vastly different knowledge management–organizational, administrative, and infrastructure–is required (Hall & Vredenburg, 2003).

**5. Conclusion**

Author points, that nowadays, as soon as external environment is becoming more and more dynamic and unpredictable, for organisation structure is possible not just ensuring, that work, resources, activities and functions are structured and coordinated in the most efficient way, planning process, decision making, minimizing work-related problems and conflict between departments are conducted, but also, a as powerful instrument for organisation development.

Early classical and scientific management studies focus on finding the one best way of structuring an organisation and its resources. This approach could be enhanced by observing structure as organisation development tool. Basically organisation structure is focused on efficiency of company`s valuable resources – internal analysis, as

we see on *Figure 5*. So we should look at organization, from external environment side, not only as a tool for improving efficiency of valuable and rare company's resources.

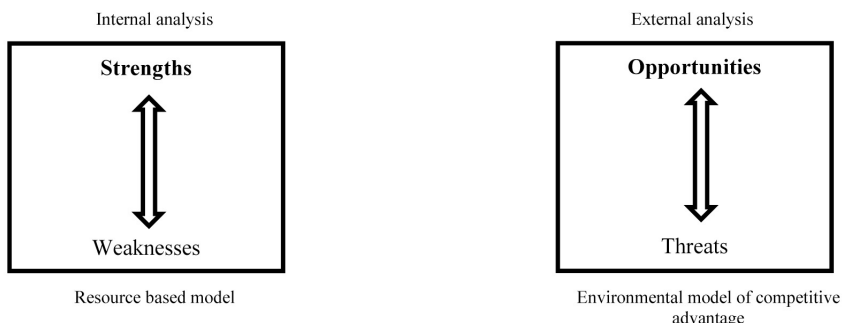


Fig. 5. The relationship between traditional SWOT analysis, the Resource Based model and Porter model of industry attractiveness

Author points, that organisation structure could be used effectively as an instrument for external environment change. For example, we examine external change in some strategically important factors in industry, that could lead to dramatic change in company's valuable resource market value or efficiency. Resources or processes inside organisation, could lose their competitive advantage, due to some external environment change. We could take, e.g. key factors from Porter's industry attractiveness (Porter's work is described in detail in M. Porter (Porter, 1980). That means, that due to some external environment change, company's structure, resources, processes could lose their efficiency relatively to their competitor. (The imitability of valuable and rare firm resources and sustained competitive advantage is broadly described in Barney (Barney, 2001) Resource Based Model) This brings us to different (relative) level of organisation efficiency. An efficient organization structure and design is structured, coordinated and developed based on feedback from external and internal environment.

Change process in external environment should be core point in building company structure, as soon as external change in strategic industry factors could lead to dramatic change in organisation resource or process efficiency (losing its competitive advantage) provided by organisation structure. The level of responsiveness of organizational structure to external environment fluctuations is becoming more crucial nowadays. Organisation development theory could help us to improve organisation structure efficiency, as environment of constant change calls for new models and processes by which change is addressed in organizations, adding this change concept (responsiveness to external environment change), we could enhance organisation efficiency both internally and externally.

In recent years, serious questioning has emerged about the relevance of OD to managing change in modern organizations. With this call for re-evaluating the process of change for company's structure, to examine organizational development through change focus, as external environment is becoming more and more dynamic and unpredictable.

## References

- Adler, P. S. (1988). Managing flexible automation. *California Management Review*, 30(3), 34. <http://dx.doi.org/10.2307/41166513>
- Anderson, D. L. (2005). "What you'll say is...": represented voice in organizational change discourse. *Journal of Organizational Change Management*, 18(1), 63–77. <http://dx.doi.org/10.1108/09534810510579850>
- Beer, M. (2001). How to develop an organization capable of sustained high performance: Embrace the drive for results-capability development paradox. *Organizational Dynamics*, 29(4), 233–247. [http://dx.doi.org/10.1016/S0090-2616\(01\)00030-4](http://dx.doi.org/10.1016/S0090-2616(01)00030-4)
- Bennis, Warren G (1976) Planning of change. 3d edition; Holt, Rinehart and Winston Bennis, W., Benne, K., Chin, R. & Corey, K. *The Planning of Change 3<sup>rd</sup> Ed.* New York: Holt, Rinehart, & Winston. 22–45.
- Bertalanffy, K. (1955). An essay on the relativity of categories. *Philosophy of Science*, 22(4), 243–263. <http://dx.doi.org/10.1086/287440>
- Bertalanffy, L. (1973). General systems theory (Revised ed.). New York: George Braziller.
- Boulding, K. E. (1956). General systems theory – The skeleton of science. *Management Science*, 2(3), 197–208. <http://dx.doi.org/10.1287/mnsc.2.3.197>
- Bradford, D. L., & Burke, W. W. (2004). Is OD in crisis? *The Journal of Applied Behavioral Science*, 40(4), 369–373. <http://dx.doi.org/10.1177/0021886304270821>
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting Organizations. *Administrative Science Quarterly*, 42(1), 1–34. <http://dx.doi.org/10.2307/2393807>

- Burke, W. W. (2002). *Organization change: Theory and practice*. Thousand Oaks, CA: Sage.
- Burke, W. W., & Litwin, G. H. (1992). A causal model of organization performance and change. *Journal of Management*, 18(3), 532–545. <http://dx.doi.org/10.1177/014920639201800306>
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. Aldershot, Hants: Gower Publishing Co.
- Cooperrider, D. L., & Sekerka, L. E. (2003). Toward a theory of positive organization change. In K. S. Cameron, J. E. Dutton & R. E. Quinn (Eds.), *Positive organization scholarship*. San-Francisco: Berrett-Koehler.
- Copley, F. B. (1923). *Frederick W. Taylor: Father of scientific management*. New York: Harper & Row.
- Drucker, P. (1995). *Managing in a time of great change*. New York: Truman Talley Books/Dutton.
- Foucault, M. (1970). *The order of things*. London: Tavistock.
- Gergen, M., & Gergen, K. J. (Eds.). (2003). *Social construction: A reader*. London: Sage.
- Giddens, A. (1984). *The constitution of society*. Los Angeles: University of California Press.
- Hatch, M. J. (1997). *Organization theory*. Oxford: Oxford University Press.
- Kurt, L. (1958). *Group Decision and Social Change*. New York: Holt, Rinehart and Winston. 201.
- Luscher, L. S., Lewis, M., & Ingram, A. (2006). The social construction of organizational change paradoxes. *Journal of Organizational Change Management*, 19(A), 491–502
- Marshak, R. J. (1993). Managing the metaphors of change. *Organizational Dynamics*, 22(1), 44–56. [http://dx.doi.org/10.1016/0090-2616\(93\)90081-B](http://dx.doi.org/10.1016/0090-2616(93)90081-B)
- Marshak, R. J. (1993a). Lewin meets Confucius: A review of the Organization Development model of change. *Journal of Applied Behavioral Science*, 29(4), 393–415. <http://dx.doi.org/10.1177/0021886393294002>
- Marshak, R. J. (2002). Changing the language of change: How new contexts and concepts are challenging the ways we think and talk about organizational change. *Strategic Change*, 11(5), 279–286. <http://dx.doi.org/10.1002/jsc.604>
- Morgan, G. (1996). *Images of organizations: Second edition*. Thousand Oaks: Sage.
- Morgan, G. (1997). *Images of organization* (rev ed.). London: Sage.
- Orlikowski, W. J. (1996). Improvising organizational transformation over time: A situated change perspective. *Information Systems Research*, 7, 63–92. <http://dx.doi.org/10.1287/isre.7.1.63>
- Poole, M. S., & Van de Ven, A. H. (1989). Using paradox to build management and organization theories. *Academy of Management Review*, 14(4), 562–578.
- Porras, J. I., & Silvers, R. C. (1991). Organization development and transformation. *Annual Review of Psychology*, 42(1), 51. <http://dx.doi.org/10.1146/annurev.ps.42.020191.000411>
- Porras, J. L., & Robertson, P. J. (1992). Organizational development: Theory, practice & research. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 3, pp. 719–822). Palo Alto, CA: Consulting Psychologists Press.
- Pugh, D. S. (1981). The Aston Program perspective: The Aston Program of research: Retrospect and prospect. In: A. Van de Ven & W. Joyce (Eds), *Perspectives on organization design and behaviour*, 135–166.
- Quinn, R. E., & Cameron, K. S. (Eds.). (1988b). *Paradox and transformation: Toward a theory of change in organization and management*. Cambridge, MA: Ballinger
- Schwandt, D., & Szabla, D. (2007). Systems and leadership: Coevolution or mutual evolution toward complexity? In J. Hazy, J. Goldstein & B. Lichtenstein (Eds.), *Complex systems leadership theory: New perspectives from complexity science on social and organizational effectiveness*, 35–60.
- Scott A.J. (1988). *New industrial spaces: flexible production organization and regional development in North America and Western Europe*. Pion, London.
- Shafer, R. A. (2001). Crafting a human resource strategy to foster organizational agility: A case study. *Human Resource Management*, 3, 197–211. <http://dx.doi.org/10.1002/hrm.1011>
- Smith, K. K., & Berg, D. N. (1987). *Paradoxes of group life: Understanding conflict, paralysis, and movement in group dynamics*. San Francisco: Jossey-Bass
- Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science*, 13, 567–582. <http://dx.doi.org/10.1287/orsc.13.5.567.7810>
- Vaill, P. (1989). *Managing as a performing art*. San Francisco: Jossey-Bass
- Volberda, H. W. (1996). Toward the flexible form: How to remain vital in hypercompetitive environments. *Organization Science*, 7(4), 359. <http://dx.doi.org/10.1287/orsc.7.4.359>
- Weick, K. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.
- Weick, K. E. (1979). *The social psychology of organizing* (2<sup>nd</sup> ed.). Reading, MA: Addison-Wesley.
- Weick, K. E. (1982). Management of organizational change among loosely coupled elements. In P. S. Goodman & Associates (Eds.), *Change in organizations: New perspectives in the theory, research, and practice*, 375–408.
- Weick, K. E. (1998). Improvisation as a mindset for organizational analysis. *Organization Science*, 9, 543–555. <http://dx.doi.org/10.1287/orsc.9.5.543>
- Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. In J. T. Spence, J. M. Darley & D. J. Foss (Eds.), *Annual Review of Psychology*, 50, 361–386. <http://dx.doi.org/10.1146/annurev.psych.50.1.361>
- Weisbord, M. R. (2004). *Productive workplaces revisited: Dignity, meaning, community in the 21st century*. San Francisco: Jossey-Bass.
- Weisbord, Marvin R. (1987). *Productive workplaces: Organizing and Managing for Dignity, Meaning and Community*. Jossey-Bass, San Francisco.
- Wheatley, M. J. (1992). *Leadership and the new science*. San Francisco: Berrett-Koehler.
- Woodman, R. W. (1993). Observations from the field of organizational change and development from the lunatic fringe. *Organization Development Journal*, 11(2).
- Hall, J., & Vredenburg, H. (2003). The challenges of innovating for sustainable development. *MIT Sloan Management Review*, 45(1), 61–68.
- Jay B. Barney. (1991). Firm resource and Sustained Competitive Advantage. *Journal of Management* 1, 100.
- Porter, M. (1980). *Competitive Strategy*. New York, NY: Free Press.