COMPETING THROUGH FLEXIBLE ORGANIZATIONS AND EFFECTIVE COMMUNICATION*

Patrizia Silvestrelli**

Abstract

Questo paper presenta alcune riflessioni sul ruolo delle configurazioni organizzative e della comunicazione tra gli individui all'interno delle imprese come fattori critici di competitività. In particolare, vengono evidenziati alcuni significativi aspetti dei mutamenti organizzativi, collegati alla complessità dell'ambiente concorrenziale, e le conseguenti implicazioni nella gestione delle risorse umane. Il filo conduttore del lavoro è costituito dai molteplici elementi del rapporto di interdipendenza tra sistema organizzativo e forme di comunicazione: le sinergie tra flessibilità organizzativa e comunicazione possono contribuire al conseguimento del vantaggio competitivo. In questi termini, la comunicazione diventa elemento strategico per creare e diffondere la conoscenza all'interno dell'impresa incrementando la capacità del management di rispondere più efficacemente alle sfide della gestione aziendale.

Key words: flessibilità organizzativa, comunicazione, risorse umane

This paper focuses on the organizational structures and communication processes which become crucial factors of the company's competitiveness. The article analyses, in particular, the implications of the environmental complexity on the organizational changes and human resources management. The main point of the paper is to present the numerous aspects of interdependency of the organizational system and forms of communication and, in consequence, the synergy of both organizational flexibility and communication ability to the

e-mail: psilvestrelli@posta.econ.unian.it

^{*} The realization of this paper derives from my research activity carried on within the third year of Ph.D. at the University of South Carolina (United States). In particular, I would like to thank William Sandberg, Associated Professor of Management at the Moore School of Business, for the helpful indications and comments given me during the execution of this paper. I also wish to thank Vida Scarpello, Professor of Organizational Theory and Human resources Management at the Georgia State University, for her insightful advises on drafts of this work. A final gratefulness to Gian Luca Gregori, Professor of Marketing at the University of Ancona, for the final suggestions to the paper.

^{**} Dottore di ricerca in Economia e Gestione delle Imprese e titolare di un assegno di ricerca presso l'Istituto di Scienze Aziendali, Facoltà di Economia "G. Fuà", Università degli Studi di Ancona.

company's competitiveness. This means that communication becomes a strategic element in the creation and diffusion of knowledge which enables the managers a more effective respond to the challenges that the business management faces.

Key words: organizational flexibility, communication, human resources

1. Introduction

This paper focuses on the role of organizational flexibility and effective communication as crucial elements of the firm's competitiveness. Environmental complexity and increased competition have pushed firms to search for new and more flexible organizational structures (Lawrence P.R., Lorsch J.W., 1967; Grandori A., 1987) that are more suitable for managing the uncertainty, instability and variability of the environment in which they operate (Emery F.E., Trist E.L., 1965; Warglien M., 1990; Rullani E., 1994). There are some implications of reorganizations such as reengineering and restructuring analyzed (Ashkenas R., Ulrich D., Jick T., Kerr S., 1995) with their impact on human resources management (Mirvis P.H., 1997), where the latter can be considered as one of the most critical competitive factors (Costa G., 1990).

Many contributions in the business management literature have pointed out that organizational flexibility can consistently help organizations to gain and maintain their competitive advantage (Lorenzoni G., 1986; Miles R.E. Snow C.C., Mathews J.A., Miles, G., Coleman H.J., 1997) because it makes firms able to respond faster and more efficiently to the environmental challenges (Halal W.E., 1994; Lipparini A., 1995).

At the same time, flexible organizations are seen as "congruent" configurations and networks where the individuals can better interact among each other (Galbraith J.R., 1977; Nacamulli R.C.D., 1991; Boldizzoni D., 1999). However, networks do not mean only relationships between functions, departments and groups within one firm, but also relationships among diverse organizations, also operating in diverse industries, which become upstream and downstream partners within the supply, production and trade chains (Lorenzoni G., 1992; Grant R.M., Baden Fuller C., 1995; Lipparini A., Lomi A., 1999; Grandori A., 2000).

Moreover, researches and empirical evidences have highlighted the importance of communication among the people, as well as their socialization as vehicle through which communication can take place (Davis S.M., Luthans F., 1980; Goldstein I.L., 1989; Nonaka I., 1991; Invernizzi E., 1996). In particular, communication represents one of the main aspects contributing to the creation and improvement of the knowledge (Cohen W., Levinthal D., 1990; Senge P., 1990; Nonaka I., Takeuchi H., 1995), which can allow organizations to gain competitive advantage.

This paper reviews these aspects in considering several contributions within the Business Management and Organizational Theory literature. In particular, the purpose of the paper is to highlight and analyze the meaning and the implications of

organizational changes and the processes through which communication can become a strategic element in the whole organizational change process. The main idea of the paper is that organizational flexibility and effective communication might sustain the competitiveness of the firm through their synergic relationship.

2. New challenges of environmental complexity

In the world of complex technologies, global markets, intense competition, and turbulent, ceaseless change, companies often find that traditional, institutionalized organizational designs no longer enable them to remain competitive (Lawrence P.R., Lorsch J.W, 1967).

In each historical era, market forces demand new organizational forms as managers seek new ways of arranging assets and resources to produce the goods and services that customers want and expect (Williamson O.E., 1975). On one hand, hierarchical functional structures dominated the Industrial Age because they were suitable to its relatively stable and predictable external business environment. But the explosion of environmental turbulence has dramatically altered the situation (Tung R.L., 1979; Ouchi W.G., 1980). Divisional structures, on the other hand, has been designed for disturbed and predictable markets, and seemed to be better suited to internal coordination needs than to rapid advance into new markets and fast adjustments in relation to the environmental changes (George J.M., Jones G.R., 1999). Yet, the matrix structure has been the response to highly unpredictable markets, and allowed to focus on both stable and emerging markets segments and clients (Davis S.M., Lawrence P.R., 1977).

However, these configurations seem to be too slow today to respond to the demands of heterogeneous, fast-changing business environment, termed the "hyper turbulent environment" (Emery F.E., Trist E.L., 1965).

A significant feature of the today environment is its "degree of volatility" (Miller D., 1987), which can be expressed through three main elements. First of all, firms have to deal with the environmental "uncertainty" provoked by unpredicted and often changes in customers taste, new technologies in goods production and service delivery and new competing methods used within the industries. Another element affecting the "degree of volatility" is the "heterogeneity" of the environment, which is related to differences in product/service lines, channel distribution, and competitive strategies. Finally, environmental volatility is caused also by the "hostility" in terms of price, technological and distribution competition, regulatory restrictions, shortage of labor or raw materials, and decreasing markets (Sheppeck M.A., Militello J., 2000).

Besides the "degree of volatility", another significant element that characterizes today's environment is the increased "velocity" of environmental changes (Nadler D.A., Tushman M.L., 1999). This pushes companies either to compete and innovate simultaneously in multiple businesses or to find creative ways to design and implement new organisational architectures (D'Anna R., 1988; Fontana F., 1993).

Therefore, to be able to anticipate and fast respond to the changes, organizations not only need to have a structure with the capacity to operate faster, but they also have to find creative ways to manage this unprecedented speed in all their operating and support processes (Gambardella A., 1999). This may imply the reduction of the time needed for production and marketing of the goods, acceleration of organization decision-making process and reduction of the time required for designing and implementing strategic and organizational changes (Drucker P.F., 1993; Baccarani C., 1995; Cafferata R., 1995).

The challenge is to design organizational configurations that are flexible and adaptive and enable the firm to manage effectively the uncertainty in a broader context of discontinuous change (Miller R.E., 1987). Moreover, it has been highlighted that "Historically, the purpose of organizational structures was to *institutionalize stability*; in the organization of the future, the goal of design will be to *institutionalize change*." (Nadler D.A., Tushman M.L., 1999, 49).

In these environmental conditions, the reality shows that "organizations become an invertebrate process rather than a structure" (Grandori A., 1987, 93); they tend to be an "organic" system (Burns T., Stalker G.M., 1961; Golinelli G.M., 2000), operating through interactions and interconnections (both at the intra-organization and inter-firm level) among the diverse parts rather then through linear chains of cause-effect (Camuffo A., 1994)¹.

Therefore, the business' challenge will be to develop the ability to create, support, and link a wide variety of related businesses that may use even diverse organizational architectures to pursue different strategies because business strategy and organizational flexibility cannot be managed distinctively (Lorenzoni G., 1986).

In these terms, the relationship between strategy and organization design is reciprocal (Nadler D.A.,Tushman M.L., 1999). On one side, strategy drives organizational architecture because the way in which an enterprise functions and performs in the markets – in terms of products offered, strategic positioning, relationship with the upstream and downstream partners – will influence its organizational structure. On the other side, organizational design affects the variety of ways in which the firm structures, coordinates, and manages its people to pursue the strategic goals.

In conclusion, the "task environment" (Thompson J.D., 1967) challenges the most basic assumption about management, influencing also the risk-taking propensity of the decision-makers toward the competitive ventures (Miles R.E. Snow C.C., 1978). Business strategy and organizational flexibility can be pursued through a continuos improvement of adaptive configurations, deriving by the everchanging needs of the firm in relation to its competitive environment.

An organization can be considered as a system of interdependent external and internal subcomponents, linked through some kinds of incentive processes that retain them within the bounded organizational system. In fact, "The essential properties of a system taken as a whole derive from the interactions of its parts, not their actions taken separately. Therefore, when a system is taken apart it loses its essential properties." (ACKOFF R.L., *Creating the corporate future*, New York: John Wiley & Sons, 1981, 16).

3. Role of human resources in organizational changes

Today's companies are dealing with concrete changes in the strategy-structure relation, and the new organizational forms are ways not only to better arrange the resources within the company but also to achieve competitive advantage through the organizational "optimization" of those resources. In the past decades, to reduce costs and increase efficiency some companies have responded by reengineering and others by restructuring their organization (Bowman E.H., Singh H., 1993; Hammer M., Champy J., 1993).

However, many firms have ignored the complexity of these organizational changes and attacked their hierarchical dysfunctions unsuccessfully through simplistic or unidimensional means. In particular, according to some researchers (Ashkenas R., Ulrich D., Jick T., Kerr S., 1995), reengineering and restructuring represent a "myths" about how to permeate vertical boundaries and create healthy hierarchies.

Many companies believed this myth and thought that their hierarchies would automatically change their organizational dynamics². They didn't consider that hierarchies are necessary because leaders are necessary to resolve conflicts, allocate resources, set directions, and represent the organization to the outside world. In fact, the researchers have argued that "many firms have downsized and claimed that they have vanquished vertical boundaries. (...) Removing layers does not mean that vertical boundaries are loosened and that information, competence, decision making, and rewards are now spread through lower levels of the organization" (Ashkenas R., Ulrich D., Jick T., Kerr S., 1995, 51).

Moreover, whereas decreasing the numbers of layers within the organizational structure may reduce the number of employees, it doesn't necessarily improve organizational functioning, unless downsizing represents a precise strategy to achieve more flexibility maintaining a centralized decision-making system (Cori E., 1997).

In this context, employee involvement represents a significant aspect that affects the outcome of organizational changes and the firm's capability to recombine competencies, know-how and expertise (Kogut B., Zander U., 1992; Grant R.M., 1996). Reality has shown that a weak attention to human resources management during the diverse stages of an organizational change can provoke organizational dysfunctions that push management to alternative ways of redesigning their organizations (Mohrman S.A., Galbraith J.R., Lawler E.E, 1998) Moreover, the lack

The researches looked into the relationship between reasons and consequences of downsizing. Firms were classified into two groups: those who downsized for reasons of cost-containment and profitability (cost-control), versus those who did so to improve productivity, deal with competitors, or implement a new business strategy (productivity). It has been found out that firms that cut back for the sake of cost control experienced many more post-downsizing problems than those that downsized for purpose of increased productivity (MIRVIS P.H., ed., Building a Competitive Workforce: Investing in Human Capital for Corporate Success, New York, Wiley, 1993).

of emphasis on human resources issues and its involvement represents maybe the most critical barrier to perform changes (Schuler R.S., Jackson S.E., 1996; Boldizzoni D., 1999)³. Comparing the barriers to change attributed at various companies to the cost change, attitudes of top management, or corporate culture, Mirvis (1997, 46) reported "no consistent differences between firms based on size, sales, workforce composition, or industry" but found that "the key differentiator…was their relative emphasis on human resources innovation".

As far as reengineering and restructuring changes are concerned, for instance, the degree of an attention given to human resources within the companies' strategies has often determined how successful the strategies turned out to be⁴.

The role of human resources is particularly relevant in the innovative process of a firm because individuals can guarantee and maintain the flexibility and creativity to manage the uncertainty and ambiguity related to organizational changes (Warglien M., 1990; March J.G., 1991). Therefore, human resources "need to engage in continuous learning to keep up with organizational changes and ensure their continued contribution to the organization." (London M., Smither J.W., 1999, 4). In these terms, people involvement in organizational changes can contribute to develop a learning perspective in creating and improving knowledge (Senge P., 1990; Nonaka I., Takeuchi H., 1995).

However, the empirical evidences have highlighted that this perspective is influenced at least by three reasons. The first regards the kind of commitment between employee and organization, which should comprehend loyalty and quality values (Padroni, 1992). In this regard, it has been argued that "On the one hand, employees must be capable of preserving and increasing their human capital. On the other hand, the firm must maintain its competitive advantage as well as the value of the specific human capital that it contributed to the creation." (Charreaux G., Desbrieres P., 2001, 120).

The obstacles to apply changes within the organizations can be different and numerous. For instance, the cost of making change, the need to address other priorities, the company's focus on short-term, and trouble getting the attention of top management (MIRVIS P.H., *Building a Competitive Workforce: Investing in Human Capital for Corporate Success*, New York, Wiley, 1993). In particular, the business corporate culture plays an ambivalent role. On one hand, it can be an important source of innovation and development; on the other hand, being source of identity and social cohesion, it can provoke conservatory behaviors (COSTA G., *Economia e direzione delle risorse umane*, Torino, Giappichelli, 1990).

The consequence of downsizing differ in relation of the capability of companies to innovate their human resources approach. Firms that are typically slowest to make this kind of innovation are far more likely to incur higher-than-expected severance costs, to increase their use of costly overtime and consultants, and to lose more of the "wrong kind of people" than are those companies considered leaders in human resources innovation. These slow-to-innovate firms find themselves in a downward spiral, continuing to lay off people without the critical mass of skills and motivation to right the business (CASCIO W.F., "Downsizing: What do we know? What have we learned", *Academy of Management Executive*, vol. 7, n. 1, 95-105, 1993).

The second reason is that human resources management is affected by size and business culture of the enterprise. For example, in cases of small and medium firms, personnel management – including issues such as recruitment, selection, training, and valuing – can be strongly influenced by entrepreneurial aspects. In fact, every decision is often based on personal judgements and beliefs of the entrepreneur and, in any case, influenced by "family power" dynamics (Schillaci C.E., 1990).

The third aspect, which can limit the employees involvement into organizational changes, is related to the type of organizational structure. Many companies, in fact, are still characterized by hierarchical systems, which do not always allow people to interact and communicate properly (Phillips N., Brown J.L., 1993). This can affect the ability of the firm to deal with internal changes and external influences (Ulrich D., Lake D., 1990; Stewart, 1998).

Therefore, it is relevant to consider capability, role and value of people because they cannot only help the organization to deal with the change, but also be promoter of more efficient arrangements, thereby be important source of productivity and innovation. Moreover, it has been argued that "having projected human resources issues more forcefully into their overall strategic outlook, companies turn made investments in people as prime source of competitive advantage" (Mirvis P.H., 1997, 49).

Organizational arrangements are related to people mental patterns. The separation between the different functions is not just structural or geographic but it resides in the way people think (Kofman F., Senge P.M., 1993). Organizational changes are thus strictly related to changing people's mind-set, thereby organizational performance depends, in a great deal, on the acceptance by all members of the company.

4. Towards new flexible structures

Flexible configurations represent structures that are able to respond to the business needs with more efficacy than previous types of structure seem to do (Rullani E., 1994). The reality shows that most companies have become bunches of autonomous "internal enterprises" – such as departments, divisions, business functions or groups – that can sometimes behave as separate firms in their own right (Halal W.E., Geranmayeh A., Pourdehnad J., 1993). At the same time, firms develop an entrepreneurial form of management, in which power, initiative, and control originate from the bottom-up, modifying also the traditional relations of power and individuals interests (Nacamulli R.C.D., Rugiadini A., 1985). In other words, there is a shift from concentration to relations, actors, group of actors and actions (Lomi A., 1997).

The business configuration is no longer a hierarchical structure operating through vertical top-down communication. Rather, it is a network of units interconnected and interacting through systems of "lateral communication" (Galbraith J.R., 1977).

An example of organizational design with these characteristics is the "cellular form" (Miles R.E., Snow C.C., Mathews J.A., Miles G., Coleman H.J., 1997). The distinctive aspect is that each cell has to be able to reorganize processes and strategies in order to make its expected contribution to the overall organization. The flexibility related to technical skills, collaborative skills and governance skills can allow companies using this organizational form to strip away most of the bureaucracy that is currently in place. In addition, it will replace it with jointly defined protocols that guide internal and external collaboration⁵.

In these terms, "the organization is no longer a pyramid of power but a web of changing business relationships held together by clusters of internal enterprises" (Halal W.E., 1994, 75). Therefore, organizational features become a relevant aspect within the company's learning process to sustain and facilitate the circulation of information and create new knowledge (Miles R.E. Snow C.C., 1978). In this regard, it has been highlighted that "A culture with a positive orientation to knowledge is one that highly values learning on and off job and one in which experience, expertise, and rapid innovation supersede hierarchy" (Davenport T.H., De Long D.W., Beers M.C., 1998, 52).

Developing learning process is then related to the organization's ability to look at continuous improvement to guarantee flexibility and efficiency of the whole organizational system⁶. It has been pointed out that this ability can be improved also through the interaction with other firms thereby experimenting new ways to operate with upstream and downstream partners (Lipparini A., Lomi A., 1999).

These relationships can involve organizations backward and forward along the entire industry chain (Lorenzoni G., 1992) – from raw materials, to parts and components production, to manufacture and assembly, to distribution and final sale – and take place in forms of outsourcing and "insourcing" (Gregori G.L., 2001) so that the network becomes so tight and complex that it becomes even difficult sometimes to determine where one organization ends and another begins⁷.

However, examples of cellular organizations – in which individual cellular principles and their interconnections are easily visible – are rare. Partial users of this form are said to achieve impressive innovative capabilities. One case of a fully developed cellular form has been identified, the Technical and Computer Graphics Company. On this case, see MILES R.E., SNOW C.C., MATHEWS J.A., MILES G., COLEMAN H.J., "Organizing in the knowledge age: Anticipating the cellular form", Academy of Management Executive, vol. 11, n. 4, 7-19, 1997.

Moreover, it has been argued that the companies able to give up the traditional approaches are more capable to deal with the impact of environmental changes and adapt to new conditions. The attitude of organizations to innovate is strictly related to their "ability to unlearn". In this way, they can create and improve new organizational behaviors, suitable to cope with the evolution of the environmental context where they operate (DECASTRI M., Verso l'internazionalità, Assetti organizzativi, aspetti di gestione del personale e cultura d'azienda per affrontare la sfida internazionale, Milano, Guerini, 1993).

Moreover, it has been argued that "the parts of a social entity take their meaning from the whole and cannot be understood in isolation. Order emerges from the interaction of those parts as a whole" (...) Neither strategic approach is liable to work unless it is embedded in

Therefore, network ties can help organizations to adapt because "they create high-capacity information, links between organizations and engender a motivation for information sharing, thus mitigating uncertainty and allowing a focal organization to vicariously benefit from the insight and expertise of its peers." (Kraatz M.S., 1998, 638). To become part of a network can represent an important source for competitiveness, especially in cases of small and medium firms, which can gain the benefits deriving from the network' synergies that they couldn't achieve working alone (Pepe C., 1988; Padroni G., 1992).

This perspective becomes more powerful is we consider the *worldwide* interaction among firms, where the "transnational learning" is developed through a variety of types of coalitions and alliances by sharing resources and competencies (Nacamulli R.C.D., 1991; Grant R.M., Baden Fullen C., 1995). In the international environment, the continuous interaction among different organizations can represent an effective way to learn (Hamel G., 1991). The interaction creates an intense opportunity to acquire new knowledge and learn different "learning styles" from firms that are either "guide" within the network or "follower" (Lipparini A., 1995; Tesio V., 1995).

This situation typically occurs in the multinational companies, in which the ever-expanding transnational linkages consist of different companies, subsidiaries, suppliers, and individuals and they result in relational networks (Nohria N., Ghoshal S., 1991; Bartlett C.A., Ghoshal S., 1992). Research and empirical evidences show that the traditional hierarchical structure dominated by the headquarter is gradually evolving into a more fluid form to adapt to strategic and competitive imperatives (Bartlett C.A., Ghoshal S., 1988). In these terms, "organizational networks began forming out of joint ventures among competitors, partnerships between suppliers and distributors, and other strategic alliances" (Halal W.E., 1994, 71), including not only multinational corporations but also small and medium firms (Pepe C., 1984).

Although the balance is shifting today toward systems of networks (or other kinds of flexible structures), which can offer entrepreneurial freedom, any advantage for the organization can only be gained by tolerating an increase in disorder (Rullani E., 1992). Several research have highlighted that organizational changes towards more adaptive structures can determine modifications in the perception of managers and employees about their roles and jobs and ambiguity related to the degree of freedom in the decision making process (Block P., 1987; Tracey J.B., Tannenbaum S.I., Kavanagh M.J., 1995; Schuler R.S., Jackson S.E., 1996).

an appropriate pattern of coherent organizational processes and structures" (MEYER A.D., TSUI A.S., HININGS C.R., "Configurational Approaches to Organizational Analysis", *Academy of Management Journal*, vol. 36, n. 6, 1175-1195, 1993, 1178).

In particular, global organizations are increasingly moving their managers from one foreign subsidiary to another in order to increase and develop their "global outlook". This practice ensures that expatriate managers build up a network of contacts throughout the world that they can use to increase integration and acquire information (BARLETT C.A., GHOSHAL S., "Organizing for Worldwide Effectiveness: The Transnational Solution", *California Management Review*, Fall, vol. 31, n. 1, 54-75, 1988).

Moreover, it is difficult for companies to realize a radical change. Instead, reality shows that most of them have modified their organization through a process of gradual modifications over the traditional structure, managing a trade off between control and freedom⁹. In fact, organizational freedom may carry out creative energy, but this energy can turn destructive if not guided into useful paths. Conversely, hierarchies may avoid this disorder, but they inhibit creative freedom.

In this context, the prudent executive will have to combine varying degrees of hierarchical control and organizational freedom to find that solution which best suits his particular organization (Halal W.E., Geranmayeh A., Pourdehnad J., 1993). In these terms, flexible structures do not represent a "laissez-faire system", but a guided system, a vehicle for reaching common goals that seems more effective than an authoritarian hierarchy (Halal W.E, 1994).

It is clear that any organizational change is a challenging process and requires a specific "managerial mindset". In particular, the ability to envision and build the entrepreneurial, self-organizing, and ownership components of flexible organizations has to be supported by the accepted conviction that emphasizes investment in human capabilities and the willingness to take substantial risks to maximize their utilization (Schweiger D.M., Sandberg W.R., 1989; Piccardo C., 1992). In other words, "leaders will have to learn when it's best to encourage autonomy and differentiation, and how to create value through the selective use of linking structures and integrative processes." (Nadler D.A., Tushman M.L., 1999, 54).

Researches have highlighted that the organization of the future will seek congruence at the enterprise level and manage differences at the same time, in perceiving internal architectural divergence as a powerful source of evolutionary strength¹⁰. Firms and networks of firms seem to be characterized by profound modifications, which are related to mechanisms of coordination and integration in a fractionated and deverticalized context (Varaldo R., Ferrucci L., 1997).

A perfect organizational design does not exist. Instead, there are developing configurations that go through different stages and reflect alternative organizational responses of the firm to deal with the environmental challenges and to respond to the ever-changing business needs.

Empirical evidences, however, have revealed that marginal changes, which partially modify the old hierarchical system, do not give successful outcomes all the cases. It is estimated that two-thirds of current change attempts do not work or produce poor results, leaving behind a demoralized workforce. See HENKOFF R., "Getting Beyond Downsizing", *Fortune*, January, vol. 129, n. 1, 30-34, 1994.

It is interesting the role of "coherence" between organizational elements, which should be correlated in distinct and reliable way. In particular, "organizational structures and management system are best understood in terms of overall patterns rather than in terms of analyses or narrowly drawn sets of organizational patterns" (MEYER A.D., TSUI A.S., HININGS C.R., "Configurational Approaches to Organizational Analysis", Academy of Management Journal, vol. 36, n. 6, 1175-1195, 1993.).

5. Strategic role of communication within organizations

We have argued that companies create more flexible and less hierarchical organizational structures to respond more efficiently to the challenges of the competitive environment. Also, it has been highlighted the critical role of human resources and their involvement within the process of organizational change. Therefore, if people's mind set can represent a relevant factor for making the business processes successful, how is it possible to make the workforce flexible enough to accept and deal with organizational changes?

Researchers and enlightened managers consider communication among people within the organization as one of the most important prerequisites to pursue organizational changes and improve business performance (Bloom E.P., 1982; Ulrich D., Lake D., 1990; Mirvis P.H., 1993; Camuffo A., 1994; Pfeffer J., 1994; Invernizzi E., 1996; Davenport T.H., De Long D.W., Beers M.C., 1998; Boldizzoni D., 1999).

In particular, communication should be a two-way process rather than the traditional downward spiral of communication (Argenti P.A., 1998). In other words, it is based on the interaction that managers place with employees, most of which should, ideally, come directly from one manager to the next, from supervisor to employee (Bloom E.P., 1982; Scarpello V., Vandenberg R.J., 1987). In this way, companies can communicate more honestly with employees by giving information focusing more on company's plans, personnel policies, and the impact of external events on the business strategy, than on people promoted to a particular position and other human interest stories¹¹.

In these terms, communication is directed at cementing the bond between firm and employees, providing employees with frequent and varied sources of information, which are intended to instill a particular set of values. In this regard, it has been highlighted that "Socialization is achieved by maintaining open lines of communication, carrying out decision making in a consultative fashion, and by encouraging both formal and informal varieties of after-hour socializing among employees." (Bird A., Mukuda M., 1991, 440).

However, two significant aspects need to be considered to make the communication process effective and they are "social prerequisites" and "informative prerequisites" (Ouchi W.G., 1979).

Social prerequisites are the base of relationships among people within an organization and are usually generated and guided by the following aspects.

Mechanisms of control guaranteed by hierarchical positions. Organizations need to be ruled by a central authority, which defines spaces and limits of the people's

However, according to some authors, "human resources practices employed are contingent on firm types and knowledge strategies pursued" (LAURSEN K., MAHNKE V., "Knowledge Strategies, Firm Types, and Complementary in Human-Resource Practices", *Journal of Management and Governance*, vol. 5, n. 1, 1-27, 2001, 18) and, thus, they can vary also in relation to organizational patters.

autonomy and guarantees that all duties are carried out (Halal W.E., Geranmayeh A., Pourdehnad J., 1993).

- a) *Habits and rules*. They represent the system of internal norms and implicit regulations that manage job relationships included those ones not officially formalized. In other words, they are ethical behavioral codes that have been recognized and accepted by people during their learning process (Doeringer P.B., Piore M.J., 1971).
- b) Trust developed by the repetitive relationships of individuals. The reciprocal trust often derives from diverse forms of cooperation, in which people are acknowledged about rules and duties (Gambetta D., 1989)

The other aspect that contributes to help communication to be more effective is the *informative prerequisites*. In particular, it has been argued that "people without information cannot be empowered to act with responsibility. (...) Sharing information seems to tap a natural desire in people to want to do a good job and to help make things better. With current information technology capabilities, there is no reason why anyone throughout an organization cannot have ready access to any information they need to do a better job." (Randolph W.A., 2000, 101). This view implies the situation in which the organization teaches employees the corporate culture and the mind set about how to behave, do a job, and interact with others (Goldstein I.L. et al., 1989).

Therefore, the information has to be codified in order to make knowledge decontextualized and articulated in routines, thereby "communicable" within the organization through well known and accepted modalities, which regulate people interactions (Boisot M., 1987; Invernizzi E., 1996). Moreover, lack of symmetry in the information process can prevent an effective development of interpersonal relationships. For this reason, communication should be "visible" from everyone within the organization (Carmagnola F., 1989).

Furthermore, information need to be divulged through a language generated by socialization – taking place when people interact among them in a common environment (Davis S.M., Luthans F., 1980) – and can include knowledge not formalized in any policy-and-procedures manual^{12.} For this reason, the knowledge created can be defined as "information combined with experience, context, interpretation, and reflection. It is high-value form of information that is ready to apply to decision and actions." (Davenport T.H., De Long D.W., Beers M.C., 1998, 43).

Considering all these circumstances, it becomes relevant that organizations

. .

In case of new employees, for example, they learn transcendent company values and organizational folklore, including the importance of product quality and stories about the dedication and commitment of employees long since retired. This results in increased commitment to the company, willingness to work long hours, and decreased absenteeism and turnover (SCHULER R.S., JACKSON S.E., *Human resources Management-Positioning for the 21st Century*, 6th ed., West Publishing, St Paul, Minn, 1996).

concentrate not only on the explicit knowledge (*know about*), but also on the *know how* that employees acquire through socialization (Nonaka I., 1991) – tacit knowledge that cannot be precisely identified and codified¹³. However, for this reason, this tacit knowledge may represent a "distinctive competence" for a firm because it is less imitable¹⁴. Therefore, it needs to be protected and improved because it is the base of the company's "business culture", its unique history, culture, behaviors, policies and beliefs.

Socialization contributes, therefore, to create and improve business culture. In this regard, it has been argued that "all culture, including corporate culture, is a social product; it is constituted and maintained by the ongoing communicative interaction of the corporation's members. Culture is therefore a product of communication." (Phillips N.J., Brown J.L., 1993, 1549).

In such a situation, an effective communication can contribute to develop the company's ability to learn through evolutionary processes that create or modify knowledge¹⁵. In fact, knowledge can be considered as an "intermediate" product because new information is supposed to be recombined and evaluated continuously in relation to the abilities and competencies already existing in the organization, thereby making innovation suitable and applicable. In other words, knowledge leads to other knowledge (Wang R.Y., Lee Y.W., Pipino L.L., Strong D.M., 1998;

In order to realize this learning process, companies need to encode data from experience in organizational routines that guide behaviors; at the same time, they should explore the effects of those routines, in term of risk-taking and innovation

On the explicit and tacit knowledge, the "tacitness" is the element on which the innovation opportunities are based. The critical aspect for a company to be successful resides not only on the ability to access to knowledge and innovation on their own. It resides also on the capacity of using efficiently and effectively knowledge and information, updating competencies and substituting the obsolete ones. All of that is referred to tacit knowledge (TOMASSINI M., "Learning organization e sviluppo delle risorse umane nell'economia dell'apprendimento", *Sistemi & Impresa*, Luglio/Agosto, n. 6, 19-38, 2000, 23).

The firm's knowledge and all the activities "knowledge creating" can be the foundation of company's distinctive competencies. However, to make these competencies useful, knowledge needs to be applied in terms of "action producing". This means that knowledge should be incorporated into specific tangible assets (instruments, machines, etc.), managerial assets (routine, procedures, etc.) related to individuals' skills, and cultural aspects that reside in the organization's norms and values (PETRONI A., "Le competenze distintive nelle imprese *science-based*", *Economia&Management*, n.3, 61-70, 1999)

It has been argued that organizational learning can be considered as a "detection and correction of error", which may occur at different levels within organizations. Learning occurs at a purely operational level when error detection and correction does not lead to significant alteration of the firm's activities or goals. Strategic learning in an organization occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies, and objectives (ARGYRIS C., SCHON D., Organizational Learning: A Theory of Action Perspective, Addison-Wesley, Reading, MA, 1978).

propensity, and exploit them through concrete business activities (March J.G., 1991; Schulz M., 1998).

All these considerations on the role of communication in developing socialization and improving knowledge regard not only infra-firm relationships, but also inter-firm relations (Boari C., Lipparini A., 1999). These can regard managers from different companies as well as managers and external individuals – such as freelancers, professionals, technicians, contingent workers – who are not directly employed in the firm, but participate and contribute to its performance through temporary relations of cooperation and consulting (Costa G., 1990).

However, within inter-firm relationships, communication might be more challenging because the network of individual can be extended, diversified, and characterized by tight and complex interconnections. In this case, informative circuit needs to be view through an integrative approach, in which each individual interacting in the process is considered as a part of the system¹⁶.

In this context, innovation technology has affected and changed consistently the way people communicate and interact. "Intranet" communication facilitates and enrich relationships among members or groups of the same firm. At the same time, "Internet" technology makes inter-firm relationships faster and easier, allowing individuals to communicate at length and instantaneously across time zones and with common language. In other words, the organization becomes a "virtual space" or "cyber-ba" (Nonaka I., Takeuchi H., 1995) where advanced in information technology provides people not only with new and more efficient ways to communicate but also with timely access to more information.

The top management is required to comprehend the value of communication in relation to employees' diversity and their capacity to "absorb" knowledge (Cohen W., Levinthal D., 1990) ¹⁷. In particular, human resources executives need to embrace the role they can play in becoming more involved in employee communications (Senge P., 1990). An effective communication can contribute to develop the concrete awareness of people to belong to the organization and be an important asset for its competitiveness. Under this perspective, it is likely that they can increase their effort and dedication (Schuler R.S., Jackson S.E., 1996; George J.M., Jones G.R., 1999).

.

However, empirical evidences have shown that managers still tend to focus on individual components of the system and attempt to establish cost controls on those components. They view these components in isolation from one another instead of treating them as an integrated whole (WANG R.Y., LEE Y.W., PIPINO L.L., STRONG D.M., "Manage Your Information as a Product", *Sloan Management Review*, Summer, vol. 39, n. 4, 95-106, 1998).

However, people approach to learning processes in completely different perspectives. Actually, some individual characteristics may interact with situational features to influence the extent of self-development. For example, employees with a low need for control are unlikely to seek feedback, while certainty-oriented employees are likely to avoid situations where new information or experience may challenge their self-image (SCHULZ M., "The Uncertain Relevance of Newness: Organizational Learning and Knowledge Flows", Academy of Management Journal, vol. 44, n. 4, 661-681, 2001).

Communication processes can sustain personal competencies and contribute to build up organizational capability because better informed and more involved employees allow organization to achieve its goals and gain competitive advantage. In these terms, effective communication can create strategic unity.

6. Flexibility and communication as interdependent sources of competitiveness

It has been highlighted that effective communication processes ensure that consistent, credible, and continuous information is shared, employees begin to share a mindset about the business's goals and means. In these terms, communication may help overcome resistance to change in which one common barrier is often a lack of information about the positive outcomes of the change (Ulrich D., Lake D., 1990).

However, even though firms competing in today's environment perceive the need and the value of communicating in a new and more open way with its workers, reality shows that it is not easy to establish this kind of communication. There are several reasons for that.

First of all, the researches have shown that many companies are still fearful of sharing information with employees (Costa G., 1990), especially, when some "best practice" and know how are too complicated, tacit and specific to be transmitted to others. In particular, more knowledge resides in individual capabilities, more people tend to be in competition among each other and not inclined to diffuse and share their own distinctive competencies and skills (Grandori A., 2000).

A second reason is that communication is often inappropriate and ineffective because the information is controlled only by few individuals within the organization and the degree of codification and standardization is limited (Bloom E.P., 1982; Phillips N., Brown J.L., 1993). In this regard, it has been argued that "information sharing can show people the impact of their efforts on business results. Seeing and understanding this impact provides incentive to keep moving forward. People can also use information to adjust their efforts, avoiding problems before they become too severe."(Randolph W.A., 2000, 103).

Another relevant reason by which the "sharing approach" seems still weak in many firms regards the business organizational dynamics. In fact, most of the firms remain hierarchically structured and many retain bureaucratic procedures. That combination often does impedes the circulation of information within the organization. In addition, it has been argued that "organizations often focus inappropriately on managing the life cycle of the hardware and software systems that produce the information instead of on the information itself. As a result, they fail to capture the additional knowledge necessary to achieve meaningful information quality" (Wang R.Y., Lee Y.W., Pipino L.L., Strong D.M., 1998, 98).

Moreover, most people have history of exposure to command-and-control thinking (Randolph W.A., 2000), which was a typical approach of the hierarchical structures. Few managers and employees understand about how to shake free of

their traditional, hierarchical mindsets and behavioral patterns¹⁸. Instead, maintaining their formal authority, top managers should lead by ensuring accountability, resolving conflict, encouraging cooperation, forming alliances, providing inspiration, and other forms of strategic guidance that shape the organization into a more productive community (Berger P., Luckmann T., 1967; George J.M., Jones G.R., 1999).

Furthermore, if in hierarchical structures information is often dispersed because of the elaborate and sometimes long top-down and bottom-up communication flows, in more fluid and adaptive organizations, on the contrary, information is available on "just in time" base (Stewart T.A., 1998). This means that specific information required to reach certain goals goes directly to those people entitled to act in order to achieve those goals.

These considerations lead to think that flexible configurations can contribute to develop that "sharing approach" that is needed to create an effective communication system. In particular, it seems to exist an interdependent relation between organizational flexibility and communication. On a side, more flexible and less hierarchical designs help communication to better take place. On the other side, an effective communication facilitates organizational changes toward increasingly adaptive solutions through people involvement and "sharing approach".

Under this perspective, there is a qualitatively different operating contract between mangers and employees, which may require a significant shift in the locus of responsibility¹⁹. The process of "empowerment" (Murrel K.L., 1985; Block P., 1987) that many companies have experienced represents an interesting response to the need of developing more partnership between managers and employees and creating a sense of engagement and fulfillment on the job (Bowen D.E., Lawler E.E., 1992; London M., Smither J.W., 1999).

While in hierarchical structures made sense to treat people as "employees", in flexible systems people are expected to assume the role of "entrepreneurs". "Thus, the old paternalistic employment relationship in which people were paid for holding a position is yielding to a "self-employed" working relationship offering people an opportunity to achieve, with both the freedom and self-reliance, rewards and risks, and other complementary rights and responsibilities of entrepreneurship" (Halal

It is interesting to observe how the Human Resources executives are changing their attitude in handling personnel issues. There is a shift towards higher communication in both directions: to and from employees, leading to cultural innovation and changes in the traditional mind-set. In this way, Human resources Function does no longer have a mere role of staff, but it becomes a significant and strategic partner of the top management (NACAMULLI R.C.D., BOLDIZZONI D., "Il marketing interno dei servizi del personale", Sviluppo e Organizzazione, n. 136, 23-37, 1993).

It has been argued that "The change demands that managers and employees unlearn old habits and assumptions that reinforce the hierarchy and inhibit empowerment. (...) At the same time, many organizational systems, procedures, and operating methods must also change. And people throughout the organization must acquire the skills and desire to use the power they possess." (RANDOLPH W.A., "Re-thinking Empowerment: Why Is It So Hard to Achieve?", *Organizational Dynamics*, vol. 29, n. 2, 94-107, 2000, 99).

W.E., 1994, 80).

For these reasons, communicating and sharing information becomes a necessary precondition to encourage "the decentralization of decision making and broader worker participation and empowerment in controlling their own work process" (Pfeffer J., 1994, 41).

In this way, managers need to review their modalities to communicate and guide employees and subordinates, becoming organizational designers, in addition to operators in order to create a new class of intelligent, high-performing, adaptive learning organizations. In fact, "innovation requires entrepreneurship, and entrepreneurship does not thrive under standardized external control" (Mintzberg H., 1983, 242).

Flexible organizations might be seen as networks where the distinctive competencies of each part are enhanced by participation, thereby contribute to create knowledge and develop skills. The advantages achieved through organizational flexibility and effective communication can help companies to deal with the challenges of the business environment and create new ways to sustain their competitiveness.

7. Final thoughts

The analysis has highlighted that the complexity of the business environment have pushed firms toward an intensified competition, the base of which seems related to acquire and develop "intangible assets" more consistently than in the past. This means that companies continuously look for better solutions to structure their organizations, manage their people, and improve knowledge.

Several researches have pointed out that this never-ending search leads companies to abandon their traditional hierarchical structures and create more flexible and adaptive configurations that help them to deal with the environmental challenges. However, any process of organizational change requires the involvement of the top management as well as the subordinates and employees, in terms of their comprehension and acceptance of the business choices, thereby achieving a concrete and efficient realization of the innovation.

Moreover, empirical evidences have revealed that organizational changes have been found to be more successful when the members of the firms were involved in the whole process. The lack of involvement and communication has represented one of the most significant reasons for which several changes (such as reengineering and restructuring processes) did not give the expected outcomes.

Therefore, by making the organization capable of learning and improving its performance, the communication becomes the vehicle of the changes. Through communication the companies can value and interact with their human resources, which because of their ability to acquire, create and diffuse knowledge, are a fundamental source of the company's competitiveness.

Summing up, flexible structures seem not only to allow the firm to adapt faster to

the ever-changing business needs but also to facilitate the circulation of information in order to acquire, modify and create new knowledge. Thus, organizational flexibility and communication can be interpret as interdependent aspects. On a side, flexibility sustains the communication process – because interactions can occur without the limitation of hierarchy and bureaucracy; on the other side, communication represents an important prerequisite to make business changes successful, incrementing the organizational flexibility.

However, the basic dilemma of organizational design remains unchanged. Companies are constantly oriented to find an appropriate way to group people, processes, and operating units in relations to their specific competitive environments and strategic goals. Therefore, there is no perfect solution that could guarantee the business stability over the time. Instead, firms are expected to evaluate and adjust their organizations continuously.

Another relevant aspect it that flexibility cannot be circumscribed only to the versatility of organizational structure or the capacity to change the modalities through which communication and informative process within a firm or business unit take place. In today's business environment, competitive advantage can be achieved also through the flexibility of managerial abilities to modify quickly and efficiently the mix of business functions and activities carried out at corporate, firm, or single business unit level.

This paper does not represent the empirical evidences of a survey, but a contemplative and methodological analysis about the modifications that characterized in the past years. The analytical approach might represent the base for future research to investigate the implications (if they exist) of the relationship between organizational flexibility and effective communication.

Bibliography

ACKOFF R.L., Creating the corporate future, New York, John Wiley & Sons, 1981.

ARGENTI P.A., "Strategic employee communication", *Human resources Management*, vol. 37, n. 3, 1998.

ARGYRIS C., SCHON D., Organizational Learning: A Theory of Action Perspective, Addison-Wesley, Reading, MA, 1978.

ASHKENAS R., ULRICH D., JICK T, KERR S., *The Boundaryless Organization. Breaking the chains of organizational structure*, San Francisco, Jossey-Bass Publishers, 1995.

BACCARANI C., (a cura di) Saggi sulla qualità nell'economia d'impresa, Padova, Cedam, 1995.

BARLETT C.A., GHOSHAL S., "Organizing for Worldwide Effectiveness: The Transnational Solution", *California Management Review*, Fall, vol. 31, n. 1, 54-75, 1988

BARLETT C.A., GHOSHAL S., Transnational Management, Homewood:IL Irwin, , 1992.

BERGER P., LUCKMANN T, The Social Construction of Reality: A treatise in the Sociology of Knowledge, NY, Anchor Books, Garden City, 1967.

BIRD A., MUKUDA M., "Expatriates in Their Own Home: A New Twist in the Human resources Management Strategies of Japanese MNCs", *Human resources Management*,

- Winter, vol. 28, n. 4, 439-453, 1989.
- BLOCK P., The Empowered Manager: Positive Political Skills at Work, San Francisco, Jossey-Bass, 1987.
- BLOOM E.P., "Creating an Employee Information System", *Personnel Administrator*, November, 1982.
- BOARI C., LIPPARINI A., "Networks within Industrial Districts: Organizing Knowledge Creating and Transfer by Means of Moderate Hierarchies", *Journal of Management and Governance*, vol. 3, n. 4, 339-360, 1999.
- BOISOT M., Information & Organisation, Glasgow, Fontana/Collins, 1987.
- BOLDIZZONI D., "Stato dell'arte e prospettive dello Human Resource Management", in BOLDIZZONI D, (a cura di), "Management delle risorse umane", *Sviluppo & Organizzazione*, Supplemento al n. 174, 3-9, 1999.
- BOWEN D.E., LAWLER E.E., "The Empowerment of Service Workers: What, Why, How and When", *Sloan Management Review*, vol. 33, n. 3, 1992.
- BOWMAN E.H., SINGH H., "Corporate Restructuring: Reconfiguration the Firm", *Strategic Management Journal*, Summer, n.14, 5, 1993.
- BURNS T., STALKER G, M., The Management of Innovation,. London, Tavistock, 1961.
- CAFFERATA R., Sistemi, ambiente e innovazione, Come s'integrano la continuità e il mutamento nell'impresa, Torino, Giappichelli, 1995.
- CAMUFFO A., "System dynamics: L'organizzazione come rappresentazione e apprendimento", *Economia e Politica Industriale*, n. 81, 205-223, 1994.
- CARMAGNOLA F., La visibilità: per un'estetica dei fenomeni complessi, Milano, Guerini, 1989
- CASCIO W.F., "Downsizing: What do we know? What have we learned?", *Academy of Management Executive*, vol. 7, n. 1, 95-105, 1993.
- CHARREAUX G., DESBRIERES P., "Corporate Governance: Stakeholder Value Versus Shareholder Value", *Journal of Management and Governance*, vol. 5, n. 2, 107-128, 2001
- COHEN W., LEVINTHAL D., "Absorptive Capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, n. 35, 128-152, 1990.
- CORI E., Controllo organizzativo, politiche di gestione e dinamica dei rapporti interaziendali, Milano, Giuffrè, 1997.
- COSTA G., Economia e direzione delle risorse umane, Milano, Utet, 1990.
- D'ANNA R., L'impiego delle "analisi di scenario" nella programmazione strategica d'impresa, Torino, Giappichelli, 1988.
- DAVENPORT T.H., DE LONG D.W., BEERS M.C., "Successful Knowledge Management Projects", *Sloan Management Review*, vol. 39, n. 2, 43-57, 1998.
- DAVIS S.M., LAWRENCE P.R., Matrix, MA: Addison-Wesley, Reading, 1977.
- DAVIS T.R.V., LUTHANS F., "A Social Learning Approach to Organizational Behavior", Academy of Management Review, April, vol. 5, n. 2, 281, 1980.
- DECASTRI M., Verso l'internazionalità, Assetti organizzativi, aspetti di gestione del personale e cultura d'azienda per affrontare la sfida internazionale, Milano, Guerini, 1993.
- DOERINGER P.B., PIORE M.J., *Internal Market and Manpower Analysis*, Lexington. Heath, 1971.
- DRUCKER P.F., Post-capitalist society, Oxford, Butterworth Heinemann, 1993.
- EMERY F.E., TRIST E.L., "The Casual Texture of Organizational Environment", *Human Relations*, n. 18, 21-32, 1965.
- FONTANA F., "Aspetti organizzativi della competitività sul tempo", Sinergie, Novembre, n.

- 9, 135-155, 1993.
- GALBRAITH J.R., Organization Design, Addison-Wesley, Reading, 1977.
- GAMBARDELLA A., L'Impresa: vecchie e nuove fonti del vantaggio competitivo, Torino, Giappichelli, 1999.
- GAMBETTA D, (a cura di), Le strategie della fiducia: indagini sulla razionalità della cooperazione, Torino, Einaudi, 1989.
- GEORGE J.M., JONES G.R., *Organizational Behavior*, 2nd ed., Addison-Wesley, Reading, Mass, 1999.
- GOLDSTEIN I.L, et al., *Training and Development in Organizations*, San Francisco, Jossey-Bass, 1989.
- GOLINELLI M.G., L'approccio sistemico al governo d'impresa, L'impresa sistema vitale, Padova. Cedam. 2000.
- GRANDORI A., "Reti organizzative e governo delle conoscenze", in *Relazioni interaziendali* e dinamica competitiva, Atti del XXII Convegno AIDEA 1999, 2000.
- GRANDORI A., Perspectives on Organization Theory, Cambridge, MA: Ballinger Publisher Company, 1987.
- GRANT R.M., BADEN FULLER C., "A Knowledge-Based Theory of Inter-Firm Collaboration", *Academy of Management Best Paper Proceedings*, 17-21, 1995.
- GRANT R.M., "Prospering in dynamically-competitive environments: Organization Capability as knowledge integration", *Organization Science*, n. 7, 375-387, 1996.
- GREGORI G.L., L'evoluzione del processo di outsourcing nelle strategie di sviluppo delle imprese, Torino, Giappichelli Editore, 2001.
- HALAL W.E., GERANMAYEH A., POURDEHNAD J., Internal Markets: Bringing the Power of Free Enterprise INSIDE Your Organization, New York, Wiley, 1993.
- HALAL W.E., "From hierarchy to enterprise: Internal markets are the new foundation of management", Academy of Management Executive, vol. 8, n. 4, 69-83, 1994.
- HAMEL G., "Competition for Competence and Inter-Partner Learning Within International Strategic Alliances", Strategic Management Journal, n. 12, 83-103, 1991.
- HAMMER M., CHAMPY J., Reengineering the Corporation: A Manifesto for Business Revolution, New York, HarperCollins, 1993.
- HENKOFF R., "Getting Beyond Downsizing", Fortune, January, vol. 129, n. 1, 30-34, 1994.
- INVERNIZZI E., La comunicazione organizzativa nel governo dell'impresa, Milano, Giuffrè, 1996.
- KOFMAN F., SENGE P.M., "Communities of Commitments: The Heart of Learning Organizations", *Organization Dynamics*, Autumn. vol. 22, n. 2, 5-23, 1993.
- KOGUT B., ZANDER U., "Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology", *Organization Science*, vol. 3, n. 3, 383-397, 1992.
- KRAATZ M.S., "Learning by Association? Interorganization Networks and Adaptation to Environmental Change", *Academy of Management Journal*, vol. 41, n. 6, 621-643, 1998
- LAURSEN K., MAHNKE V., "Knowledge Strategies, Firm Types, and Complementary in Human-Resource Practices", *Journal of Management and Governance*, vol. 5, n. 1, 1-27, 2001.
- LAWRENCE P.R., LORSCH J.W., Organization and environment, Managing differentiation and integration, Boston, Graduate School of Business Administration, 1967.
- LIPPARINI A., LOMI A., "Interorganization Relations in the Modena Biomedical Industry: A Case Study in Local Economic Development", in GRANDORI A, (ed.), *Interfirm Networks*, London and New York, Routldge, 1999.
- LIPPARINI A., Imprese, relazioni tra imprese e posizionamento competitivo, Etas Libri,

- Milano, 1995.
- LOMI A., "Lo studio relazionale dell'organizzazione attraverso diversi livelli di analisi", in Lomi A, (ed.), *L'analisi relazionale delle organizzazioni*, Bologna, Il Mulino, 1997.
- LONDON M., SMITHER J.W., "Empowered self-development and continuous learning", *Human resources Management*, vol. 38, n. 1, 3-15, 1999.
- LORENZONI G., "Strategia e flessibilità organizzativa", Economia e Politica Industriale, n. 52, 63-71, 1986.
- LORENZONI G., Accordi, reti e vantaggio competitivo: le innovazioni d'impresa e negli assetti organizzativi, Milano, Etas Libri, 1992.
- MARCH J.G., "Exploration and Exploitation in Organization Learning", *Organization Science*, n. 2, 71-87, 1991.
- MEYER A.D., TSUI A.S., HININGS C.R., "Configurational Approaches to Organization Analysis", *Academy of Management Journal*, vol. 36, n. 6, 1175-1195, 1993.
- MILES R.E., SNOW C.C., MATHEWS J.A., MILES G., COLEMAN H.J., "Organizing in the knowledge age: Anticipating the cellular form", *Academy of Management Executive*, vol. 11, n.4, 7-19, 1997.
- MILES R.E., SNOW C.C., Organization Strategy, Structure and Process, New York, McGraw-Hill, 1978.
- MILLER D., "The genesis of configuration", *Academy of Management Review*, 12, 686-701, 1987
- MINTZBERG H., Structures in Five, Designing Effective Organizations, Prentice Hall, Englewood Cliffs, 1983.
- MIRVIS P.H., "Human resources management: Leaders, laggards, and followers", *Academy of Management Executive*, vol. 11, n. 2, 43-57, 1997.
- MIRVIS P.H., ed., Building a Competitive Workforce: Investing in Human Capital for Corporate Success, New York, Wiley, 1993.
- MOHRMAN S.A., GALBRAITH J.R., LAWLER E.E., *Tomorrow's Organizations*, San Francisco, Jossey-Bass, 1998.
- MURREL K.L., "The Development of a Theory of empowerment: Rethink Power for Organization Development", *Organization Development Journal*, vol. 3, n. 2, 34-38, 1985
- NACAMULLI R.C.D., BOLDIZZONI D., "Il marketing interno dei servizi del personale", *Sviluppo e Organizzazione*, n. 136, 23-37, 1993.
- NACAMULLI R.C.D., RUGIADINI A., Organizzazione e mercato, Bologna, Il Mulino, 1985
- NACAMULLI R.C.D., "Apprendimento transnazionale", Sviluppo & Organizzazione, n. 125, 1991
- NADLER D.A., TUSHMAN M.L., "The Organization of the Future: Strategic Imperatives and Core Competencies for the 21st Century", *Organization Dynamics*, Summer, vol. 28, n. 1, 45-59, 1999.
- NOHRIA N., GHOSHAL S, *The N-Form: Reconceptualizing Structure and Innovation in Multinational Corporations*, Boston. MA, Harvard Business School Press, 1991.
- NONAKA I., TAKEUCHI H., *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, New York, Oxford University Press, 1995.
- NONAKA I., "The knowledge-creating company", Harvard Business Review, Nov/Dec, vol. 69, n. 6, 96-104, 1991.
- OUCHI W.G., "A conceptual Framework for the Design of Organization Control Mechanism", *Management Science*, September, vol. 25, n. 9, 833, 1979.

- OUCHI W.G., "Markets, Bureaucracies and Clans", *Administrative Science Quarterly*, n. 25, 129-141, 1980.
- PADRONI G., "Organization opportunities and limitations in the implementation of quality policies in "smaller" firms", *Economia Aziendale*, vol. 11, n. 2, 253-272, 1992.
- PEPE C., "Riflessioni sulla debolezza strategica delle piccole imprese italiane", *Piccola Impresa / Small Business*, n. 3, 41-60, 1988.
- PEPE C., Lo sviluppo internazionale delle piccole e medie imprese, Milano, Franco Angeli, 1984.
- PETRONI A., "Le competenze distintive nelle imprese science-based", Economia&Management, n. 3, pp.61-70, 1999.
- PFEFFER J., Competitive Advantage through People, Harvard Business School Press, Boston Mass, 1994.
- PHILLIPS N., BROWN J.L., "Analyzing Communication In and Around Organizations: A Critical Hermeneutic Approach", Academy of Management Journal, vol. 36, n. 6, 1547-1576, 1993.
- PICCARDO C., "Empowerment", *Sviluppo & Organizzazione*, n. 134, Novembre/Dicembre, 138-148, in BOLDIZZONI D, (a cura di), 1999, "Management delle risorse umane", Supplemento al n. 174 di *Sviluppo & Organizzazione*, 1992.
- RANDOLPH W.A., "Re-thinking Empowerment: Why Is It So Hard to Achieve?", *Organization Dynamics*, vol. 29, n. 2, 94-107, 2000.
- RULLANI E., "Divisione del lavoro e reti di impresa: il governo della complessità", in BELUSSI F. (a cura di), *Nuovi modelli d'impresa, Gerarchie organizzative e imprese rete*, Milano, Angeli, 1992.
- RULLANI E., L'elasticità dell'azienda di fronte al cambiamento, in AA.VV., Bologna, Clueb, 1994.
- SALVEMINI S., "La gestione del cambiamento organizzativo", Sviluppo & Organizzazione, n. 63, 1981.
- SCARPELLO V., VANDENBERG R.J., "The Satisfaction With My Supervisor Scale: Its Utility for Research and Practical Applications", *Journal of Management*, vol. 13, n. 3, 447-466, 1987.
- SCHILLACI C.E., Processi di transizione del potere imprenditoriale nelle imprese familiari, Torino, Giappichelli, 1990.
- SCHULER R.S., JACKSON S.E., *Human resources Management- Positioning for the 21st Century*, 6th ed., West Publishing, St Paul, Minn, 1996.
- SCHULZ M., "The Uncertain Relevance of Newness: Organization Learning and Knowledge Flows", *Academy of Management Journal*, vol. 44, n. 4, 661-681, 2001.
- SCHWEIGER D.M., SANDBERG W.R., "The Utilization of Individual Capabilities in Group Approaches to Strategic Decision-Making", *Strategic Management Journal*, vol. 10, n. 1, 31-43, 1989.
- SENGE P., The Fifth Discipline: The Art and Practice of the Learning Organization, New York, Doubleday, 1990.
- SHEPPECK M.A., MILITELLO J., "Strategic HR Configurations and Organization Performance", *Human resources Management*, Spring, vol. 39, n. 1, 5-16, 2000.
- STEWART T.A., *Intellectual Capital, The New Wealth of Organizations*, Nicholas Brealey Publishing, London. 1998.
- TESIO V., "Le risorse umane nell'era della conoscenza", Fiat Quadri, n. 4, 1995.
- THOMPSON J.D., Organizations in Action, New York, McGraw, 1967.
- TOMASSINI M., "Learning organization e sviluppo delle risorse umane nell'economia dell'apprendimento", Sistemi & Impresa, Luglio/Agosto, n. 6, 19-38, 2000.

- TRACEY J.B., TANNENBAUM S.I., KAVANAGH M.J., "Applying trained skills on the job: The importance of the work environment", *Journal of Applied Psychology*, n. 80, 239-252, 1995.
- TUNG R.L., "Dimensions of Organization Environment: An Exploratory Study of Their Impact on Organization Structure", *Academy of Management Journal*, n. 22, 672-693, 1979.
- ULRICH D., LAKE D., Organization Capability: Competing From the Inside Out, New York, Wiley, 1990.
- VARALDO R., FERRUCCI L., (a cura di), *Il distretto industriale tra logiche di impresa e logiche di sistema*, Milano, Franco Angeli, 1997.
- WANG R.Y., LEE Y.W., PIPINO L.L., STRONG D.M., "Manage Your Information as a Product", *Sloan Management Review*, Summer, vol. 39, n. 4, 95-106, 1998.
- WARGLIEN M., Innovazione e impresa evolutiva, Padova, Cedam, 1990.
- WILLIAMSON O.E., Markets and Hierarchies: Analysis and Antitrust Implications, New York, Free Press, 1975.