SYSTEMS THINKING: THE NEW FRONTIER IN QUALITY MANAGEMENT

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Summary
What happened to quality in the 1980s can be defined, twenty years later, as an "unaccomplished revolution". To accomplish it, the dynamic management principles necessary to reach organizational "fitness for purpose" and keep it over time should be better understood. The paper suggests, as a major factor, the incorporation of modern systems thinking concepts into quality management. In such a systems perspective, the core issue is the dynamic of value creation and value preservation. To that purpose, the "value generation cluster" is introduced. A way of revisiting quality management models from the systems perspective, in order to make them more effective, is also suggested.

Keywords
Systems thinking, organizational architectures, value generation clusters, quality management models, organizational fitness for purpose.

INTRODUCTION: THE TQM UNACCOMPLISHED REVOLUTION

In the 1980s and early 90s, most top executives of international companies competing in product/market sectors that were hit by the Japanese quality-based competition, became fanatical believers of the new TQM faith. The author, who had the opportunity to be the representative of one of the EFQM's founding companies, still has, before his eyes, the memorable scene of the presidents of fourteen leading European companies sitting on the stage and enthusiastically and competently speaking about their quality-based innovation strategies (EFQM,1988). They did not talk of technology and products, but of changing the organization and the way it used to be managed, to make it better able to face the new challenges. The people who were appointed by such executives as responsible for the new quality strategies were not quality control or quality assurance experts either, but line or staff executives directly reporting to the CEOs. The task that was given them was to help to identify – and contribute to the implementation of – organizational architectures fit for the quality-based competition. Presidents and CEOs themselves fervently talked about the new style of leadership, delegation and empowerment, process-based flat-and-lean organizations, and the like.

Obviously, the most tangible aspects of the new "TQM" philosophy were the tools that had been developed and successfully applied (like Process Management and Quality Function Deployment) or those that were re-discovered and re-visited (like SPC). The problem was that, little by little, the tools took the lead, while the organizational transformation that was supposed to be the core of the new management philosophy was postponed, moved to the

background and little by little almost forgotten. Only the issue of transforming the vertical, hierarchical organization into a process-based flat organization remained on the agenda of the most advanced companies for a while, but quite often progressively downgraded, due to the difficulty of overcoming resistance to change and finding a satisfactory vertical/horizontal balance.

Several were the reasons for the decline of top management interest and consequent degradation of the TQM vision. To name a few: the insistent request for short-term results, which is incompatible with the timescales of serious organizational transformations; the change of top executive priorities, brought in by the so-called "new economy" and by the frantic pursuit of higher and higher stock value, to the detriment of the real long-term enterprise value. That led to an increasing focus on financial performance (often manipulated), less on sustainable customer/stakeholder value generation capability. Another cause of the decline was the sharp increase in number of quality consultants, attracted by the new business of quality and ready to ride any new fad, instead of educating customers to make the best choices for their companies' long-term performance. The result was that, little by little, the companies' top executives returned to the old mentality whereby quality is a matter for specialists that does not imply their direct involvement. Those responsible for quality report less and less to the CEO, but it means that they have to have more managerial and organizational expertise. Six Sigma has become the leading approach to quality (in the USA in particular); consultants and academics focus more on packaging and repackaging old stuff instead of continuing the innovation wave that revitalized quality management in the 1980s. A symptom of the decline is the use of the preposition "beyond" instead of "in addition to" for promoting a new approach, to make the old obsolete. We even saw approaches claimed to be "beyond TQM", simply because the proponent had a narrow view of TQM. Those (this author included) who give the TQM acronym the general meaning of strategic quality management approach aimed at continuous improvement and innovation, do not feel the need to change the name of the toolbox when a new tool comes in.

The need to keep organizations "fit for purpose" and improve fitness over time remains unchanged – in fact, even more stringent and more generalized, given the continuous changes in the global environment and the crisis that invests the big worldwide systems.

A NEW WAVE OF INNOVATION IS NEEDED IN MANAGEMENT — QUALITY MANAGEMENT INCLUDED

Technology and statistics alone will not reverse the trend. They are absolutely necessary to meet the product and service objectives and to reduce defects and waste, but, alone, they will not help in surviving competition, let alone reaching excellence and keeping it over time. Since the early times of scientific management, techniques, methods and statistics have been the backbone of western-style management. But they were based on a system model – mechanistic – that suited the companies' status, the social situation and the educational levels of the time. They do not fit the nature of organizations any longer. Even innovation, if pursued just through techniques and tools, will not reverse the trend. Trend reversal will only be achieved by going to the roots of the problem: *the way we conceive organizations* and, *consequently*, manage them. *It is the assumed mental model of the organization – the paradigm - that is no longer adequate*. That may sound unpopular, since the idea that progress in technology, techniques and methods is going to solve all our problems is deeply rooted in western mangers' DNA. I do not share such a view. I believe in the power of technology in

solving technical problems (those related to the mechanistic parts of the system) and helping solving social problems; but I am also convinced that socio-cultural systems, namely organizations, obey a more complex paradigm, where the social part prevails over – and in fact conditions – the technical part. In a paper presented at the ASQ Conference eight years ago (Conti, 2001), I described the relation between the organizational system and its technical/technological subsystem as that of a cask and the wine it contains. If the cask is unfit to sustain the pressure of the wine, it breaks down. And today's "technology wine" is ever fermenting, strong, powerful. The cask – mainly made of people – deserves more attention.

In the first decades of the 20th century, the foundations of management were laid by three great innovators, who addressed the problem of making the new large corporations, as well as new state administrations, more efficient. Frederic W. Taylor created what was called "scientific management", by using an engineering approach, with emphasis on observation and measurement, which produced enormous improvements in company efficiency. Henry Fayol was a great innovator in the field of administrative management (Fayol, 1949). Both Taylor and Fayol were knowledgeable and creative practitioners, the first an engineer, the second an industrialist, who were able to create, in their minds, reliable models of their contemporary organizations and to build on them rational and effective *management models*. Max Weber was more a sociologist, with broad knowledge of both industrial and political organizations. His bureaucratic model of management perfectly suited the organizations of its time, Prussian in particular. The management models proposed by these three innovators were at the basis of the dramatic increase in size and efficiency of industry (and public administration) in the first part of the last century. That was because they matched the character of the society of the time and, consequently, of the social organizations that were created in such a society (an example of management paradigms fitting the organizations' nature).

In time, the new large corporations strongly influenced the surrounding society – on one side promoting evolution, on the other causing assimilation crises; and, vice versa, the evolution of society, people's needs, education, strongly influenced the corporations. Mismatch between the organization and the related management models progressively increased, negatively impacting company performance and state of health. We have reached a critical point now, where the mismatch is sometimes dramatic. Not just in companies, but even more in the new very large global organizations that govern trade, finance, energy and supply of critical resources. No wonder that average company life expectancy today, with respect to the lifetimes of long-lived companies, is comparable to that of humankind in the Neanderthal period, with respect to the assumed physiological limits (De Geus, 1997). No wonder, also, that the worldwide financial and political systems are always in turmoil (certainly contributing to the ever shorter life of the corporation). But what can be done to make organizations more robust?

THE INTERRELATION BETWEEN THE SOCIAL AND TECHNICAL PARTS OF ORGANIZATIONS

The interrelationship between the technology and the social systems has always been recognized as a major problem in organizations.

Traditional management theory gave little consideration to the ways in which technology affected the psychosocial system. The technical system was considered as given and invariable, and the assumption was made that people would adapt (Kast & Rosenzweig, 1985).

The social system was then considered as the "dependent variable"; fortunately man is highly adaptable, but:

…it is interesting to speculate on what might happen if we were to build a production line designed to maximize the human resources and motivations of the operators, and then consider the machines as dependent variables which must be built to conform to the requirements of a system designed to maximize the human's potentialities (Haire, 1964).

Mason Haire's speculation of forty-five years ago has become a reality today in many cases and is going to become more and more relevant, if we really mean something when we talk of knowledge-based systems and knowledge-based society. If, in the past, people in factories could – even if they shouldn't – be treated as parts of machines (and in fact their work was destined to be sooner or later replaced by machines), that is no longer possible today (and less in the future) when dealing with knowledge workers. In that case, organizational systems should certainly be designed to maximize people's motivation and involvement, and consequently value-generation capability.

The fact is that we say high-sounding words about knowledge, but we still consider people as "resources", production factors that are used, sometimes consumed, and, when exhausted, rejected. But people *are* the organization; in the social system perspective people are the main elements, the founding parts. Only involved and motivated people can make the organization alive. Even if turnover is unavoidable and, to some extent, positive, loyalty and average long-time permanence in a company are the distinguishing features of the good organizations. In such organizations, people continuously renew themselves through intense internal and external communication, dialogue, cooperation, learning. Mental turnover due to value generation and value exchange in relations is more effective than physical turnover. Only by enhancing their value can people foster their ability to continually renew themselves, to rapidly match – and react to – changes in the external environment. A capability that is typical of living systems, which manage to survive and evolve in the environment they happen to live in.

Some among the most innovative minds in organization and management have recognized the need of a paradigm shift. David Nadler, in his book "Organizational Architecture" (Nadler, 1992) addressed the issue of how to design organizations to face the new continuously changing environment. Nadler uses the expression *Organizational architecture* to indicate the philosophy, idea, principles of the organization: what I call here "the concept". Structures come later, as materializations of the concept, and should possibly be defined by the operating managers, depending on the specific situation and needs. In a series of Harvard Business Review articles of 1994-95, Sumantra Goshal advocated the need to change the role of managers, by changing the management paradigm from "Strategy-Structure-Systems" to "Purpose-Processes-People" (where the term "system" is used to indicate a rigorously defined plan/execute/measure/control system aimed at minimizing human idiosyncrasies, a meaning that has little to do with that of the same word in the systems science) (Ghoshal, 1994/5). Even if still somehow distant from the systems thinking perspective, I consider his paper very important in the search for new management models. A concept of the organization that is closer to the new systems view comes from the above-mentioned excellent university (but very pragmatic!) text written more than twenty years ago by F.E. Kast and J.E. Rosenzweig:

"Organization & Management" (Kast & Rosenzweig, 1985). In his most recent book, "The Future of Management", Gary Hamel embraces the view that a change of paradigm is urgent: "In this new century, we must strive to transcend the seemingly unavoidable trade-offs that have been the unhappy legacy of modern management" (Hamel, 2007). However, in my opinion, the author intensely and effectively focuses on the "management paradigm" change, not so much on the "organization paradigm" change. I believe that the first step is to better understand and define the nature of organizations, an effort that, at the dawn of management, was done, in particular, by Max Weber. Today, systems thinkers have made, and are making, the effort to better understand and describe the behaviour of socio-cultural systems, overcoming the obstacles interposed by a century of analytical thinking, resulting in excessive specialization.

THE SYSTEMS VIEW OF ORGANIZATIONS

All organization/management/quality management experts claim today to adopt the systems view in their approaches. However, a brief analysis often makes clear that many of them use the term "system" in a limited and approximate way. Even when the basic concepts are correctly applied, in most cases the mechanistic or organic model is assumed (see below).

Systems thinking addresses the problem of complexity (it is also called, in fact, "the science of complexity"); it reaches where traditional analytical thinking *cannot* go. Simplification, intrinsic in the latter, is, in fact, a barrier to address complexity. Psychological, biological, economic and social sciences feel the need to turn to systems thinking to address the complexity that is inherent in the realities they study. Organizations – man-made systems – cannot escape the necessity of using modern systems concepts and methods, given the complexity they reach and the risks that their failure implies. Evolutionists see a clear connection between systems in nature and the man-made social systems. Since the objective of the systems scientist is to understand the nature of systems to improve their performance, the link between systems thinking and managing for quality is evident.

Ludwig von Bertalanffi, with his fundamental book "General Systems Theory" provided the theoretical bases for the science of complexity, and initiated the extension of its application from the realm of physics to biology and the sciences of man, making claims for a unified view of sciences. It is interesting how a great scientist, after the tragedies of the 20th century he witnessed, felt the need to complete his intellectual journey from the physical world to that of human organizations, warning about the risks of mechanistic models:

> The mechanistic world view, taking the play of physical particles as ultimate reality, found its expression in a civilization which glorifies physical technology that has led eventually to the catastrophes of our time. Possibly the model of the world as a great organization can help to reinforce the sense of reverence for the living which we have lost in the last sanguinary decade of human history (Bertalanffi, 1969).

The same trend towards a universal view of systems is found in Erwin Laszlo, a famous evolutionist, advocate of a "General Evolution Theory". Among others, his book "A Systems View of the World" (Laszlo, 1996) presents a tracking from the physical to the biological, the social, the worldwide ecosystem. The interest is not only speculative, but practical, for the reasons that will be highlighted below.

Russell Ackoff is considered the leader of a group of modern systems thinkers who made a fundamental contribution to the systematization of the new science. That group includes, among others, C. Churchman (Churchman, 1979), K. E. Boulding (Boulding, 1968), J. Gharajedaghi. Ackoff's main (but not exclusive) focus is on business systems, e.g. "Recreating the Corporation" (Ackoff, 1999). Gharajedaghi, who considers himself a close disciple of Ackoff, is the author of a very comprehensive book ("Systems Thinking – Managing Chaos and Complexity") from which we will borrow some concepts and figures (Gharajedaghi, 1999).
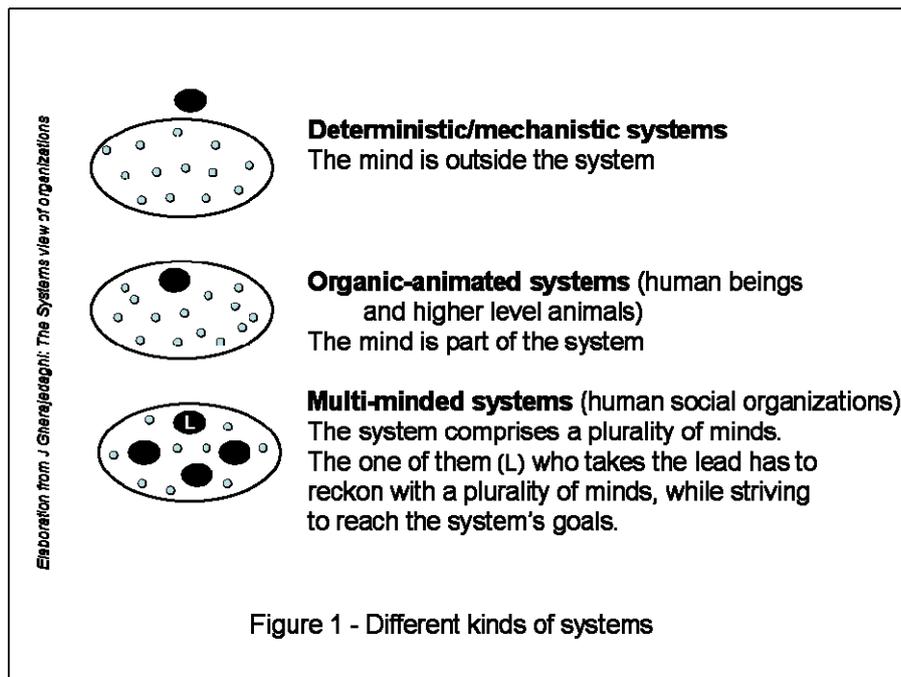

Figure 1 - Different kinds of systems

Figure 1 – Different kinds of system

Figure 1 provides a clear picture of the differences between the different types of systems. The first type, represented at the top, is the deterministic/mechanistic system. It applies to all inanimate systems, natural or man-made. Mechanistic systems cannot make choices on their own. Man-made mechanistic systems can make the choices for which they are programmed. They can be *state-maintaining* systems (e.g. thermostat-controlled) or *goal-seeking* (computers, robots), but not purposeful.

The second type is the organic-animated system. It represents all those organic systems that have a mind that can make choices (while the parts cannot). They are also called uni-minded, because there is only one mind that can make choices, on behalf of the whole. Wholeness is a fundamental characteristic of these systems, because the mind is not just one of the parts, but *the unifying part*, that takes care of the wellbeing of the whole organism. A centralized function shows a wisely conceived high degree of "delegation" that allows the mind to care about higher-level tasks and intervene only when parts send help signals. If we take human beings (the top level of such type of systems), we see that *purposefulness* is their most distinguishing feature. The more they can get rid of primary needs, the more they can devote themselves to rational, artistic, creative activities.

The third type is the social, or multiminded, system. Limiting our discussion to the human social systems, we can also call them socio-cultural systems, since a shared culture (that is shared values, traditions, habits, interests) is the bond that can transform a number of people into a system. Apart from the natural ethnic aggregations, socio-cultural systems are normally *created for a specific purpose*. We will limit our discussion to them.

Clearly, the conceptual model of any socio-cultural system (organization) should be the multiminded, because human beings are, and should be treated as, free individuals, capable of making free choices. But cultures are different, and to create a *management* model out of a *socio-cultural* model, cultural differences must be taken into account – not only those sanctioned by constitutions and laws, but also the ethnic, religious, traditional ones. That is a big problem for multinational companies, as well as companies operating in a multi-ethnic environment – a situation that is going to spread like fire, due to globalization. But it is an even bigger problem for socio-political organizations. However, apart from differences due to medleys of historically different cultures, which are taking place at an ever growing pace, dramatic changes have taken – and are taking – place within the same cultures. In many areas of the world, the cultural paradigms have dramatically changed in the last century, very little in others. It is wise to understand the specific cultural situation before applying a management model (in the case of TQM, models were often exported, not adapted).

In summary, I see two problems: first, lack of awareness that management models are bound to match the multiminded model. Management models used are mechanistic, or organic in the best case: they will never fit the nature of organizations. Second, there is no single multiminded model, since such models depend on culture. Then management models should be re-thought for each different cultural environment. Such a statement will be considered a truism, because management journals' articles on how multinationals have – or have not – adapted to local cultures abound; but it is not, if we refer to a deep understanding, for example, of the traditional approaches to generating social value. (Recalling the above quote by Katz and Rosenzweig, social systems are too often supposed to adapt to the management model. But they don't, in the long run; or, if they do, it will be at the expense of effectiveness and efficiency).

Shall we dismiss the mechanistic and organic models for organization? My opinion is that the mechanistic should be relegated to the non-human parts of man-made systems. In relation to the organic models, my thesis, based on the modern evolutionists' teaching, Laszlo's in particular, is the following: the organic model should be taken as the ideal situation to aim at, knowing however that it will never be reached, since the nature of the multiminded is substantially different from that of the organic systems. The latter in fact represents a higher step in the evolution scale, where the appearance of human intelligence and freedom of choice was accompanied by a sharp reduction in the strength of physical links, replaced by cultural links that could span from high negative to very high positive (Laszlo, 1996). In such a situation, to successfully create a common purpose, leadership and shared values are needed. Leadership facilitates the creation of the cultural bond and the alignment of efforts to the purpose. In the multiminded system view, leadership acquires a precise sense and precise contents: rational intelligence and knowledge to understand the nature and behaviours of human social systems; emotional intelligence to aggregate people around shared values and make them freely adhere to the common purpose; integrity to walk the talk.

Why take the organic as the ideal – even if unreachable – model? Because nature has a lot to teach in terms of self-organization. Remembering what was said above about decentralization

of tasks makes it clear that *nature reaches ever higher complexity levels through simplification*! Such an observation should be very encouraging for those leaders and students who, based on experience, reach similar conclusions. Charles Handy, the author of "The Age of Unreason" wrote a very interesting article in the Harvard Business Review (Handy, 1992) on the paradox, for organizations, of being both big and small, with the title "Balancing Corporate Power: A New Federalist Paper". He strongly advocated the use, not only in politics but also in business, of the "subsidiarity principle". My argument is that managers should better know evolution, since it reveals what nature does to combine complexity with simplicity.

About one century ago people like Taylor and Weber interpreted the social situation of their time and conceived management solutions that suited them. Their models led to dramatic improvements in the efficiency of industries and public administrations. The social costs were not apparent at the time (only artists like Charlie Chaplin could prophesy them) and the illusion spread of never-ending progress (broken off by the great depression). Anyhow, Taylor and Weber conceived management models (mechanistic) that matched the social situation of their time. Lack of the perception of the link between management models and sociocultural models and scarce sensitivity to the underlying social changes accumulated the mismatch. We need continuous innovation to keep the management system and the social system tuned over time. But that requires a sharp paradigm change, which I believe should be based on the systems view of organizations.

VALUE CREATION THROUGH RELATIONS

As Laszlo says: nature has a passion for relations. The world around us is made of systems at various hierarchical levels. Each system is characterized by internal relations among its parts and by the external relations with other systems. Evolution in nature takes place through relations. From relations, new – sometimes extraordinary – features stem. Features that cannot be reported to any – or the sum – of the relating parts. They are called "emergent properties". Life is an emergent property. Intelligence is an emergent property. Love is an emergent property. Organizational excellence, too, is an emergent property. As such, it stems from relations more than from individual endowments or technology. If that is true, leaders who strive for excellence should consider it their first responsibility to create – or foster the creation of – relations *capable of creating outstanding value*. When that is the leader's attitude, the aspect of the organization changes, creativity flourishes, continuous innovation takes place. My personal experience confirms, by and large, such statements (Conti, 2007/1). However, when I try to share such a view with some colleagues, I see some of them (those who only believe in technology, techniques, statistics) smile: tools, like Genrikh Altshuller's Triz and Ariz are needed to generate innovation, they say, not such metaphysical fancies. Fortunately I am not alone. T. Amabile, from the Harvard Business School, for example, in a very interesting paper of 1998 with the title "How to Kill Creativity", reports on her research and experimentation about the influence of the organizational environment on creativity. Some quotes from her conclusions: "*Creativity gets killed much more often than it gets supported*"; "*...fostering creativity is in the hands of managers as they think about, design, and establish the work environment. ...it calls for a conscious culture change*" (Amabile, 1998). G. Hamel, in his above-mentioned book (Hamel, 2007) says: "*We create innovation projects and units, instead of organizations that are innovative from top to bottom*".

But in our everyday work life, I believe, all of us have had personal experience of how the effectiveness and efficiency of complex cross-functional processes increases more by creating a team of all those responsible along the chain, than by using statistical techniques (which are fundamental anyhow, but lead to limited results if there is not a network of intense relations among the sub-process owners).

THE VALUE GENERATION CLUSTER

Figure 2 schematically illustrates the rationale of the "*Value Cluster*" (or "V*alue Generation Cluster*"), a concept that I introduced a few years ago. Three elements only are represented in the figure, for simplicity. They can be either individuals or groups of individuals (sub-clusters). They co-operate to generate the expected value. From their co-operation – because of the synergetic effect typical of social systems – the value that is generated is different from the sum of the values that each individual could generate in isolation. It can be more – sometimes much more – and that is what is expected of a co-operative system; or it can be less, when people do not co-operate, when they destroy value. The synergetic (or "resonance") effect is represented in the figure by a multiplying factor N (in the central box, which represents the organizational structure involved, e.g. a process, or an *ad hoc* team). Such a factor, which represents the effectiveness in generating the expected value, depends on a number of ethical/cultural factors, primarily openness, mutual respect and trust, willingness to cooperate.

Two types of relations take place within the Cluster. The first is the relation between each "element" and the organization: a bi-lateral relation, represented by a couple of radial arrows for each element, pointing in opposite directions. The primary value flow is from the person to the organization: the value that the organization has the right to expect from any individual who freely joins it. What is a fair contribution is difficult to say since, particularly in the case of intellectual activity, defining performance standards can be difficult. But it is here that the reverse value flow, from the organization to the individual, comes into play. People's motivation to contribute to the collective value generation process is proportional to the gratification that they get in return. We can distinguish between external and internal motivation; although both important, the latter is key. Gratifications that drive internal motivation come mainly from the leadership-created environment. In the figure, the "shared-values permeated environment" is highlighted: *it is the soil in which the seeds of creativity can grow*.

Figure 2 - The "Value generation cluster", the synergetic process of value generation in relations. [Cluster of individuals].
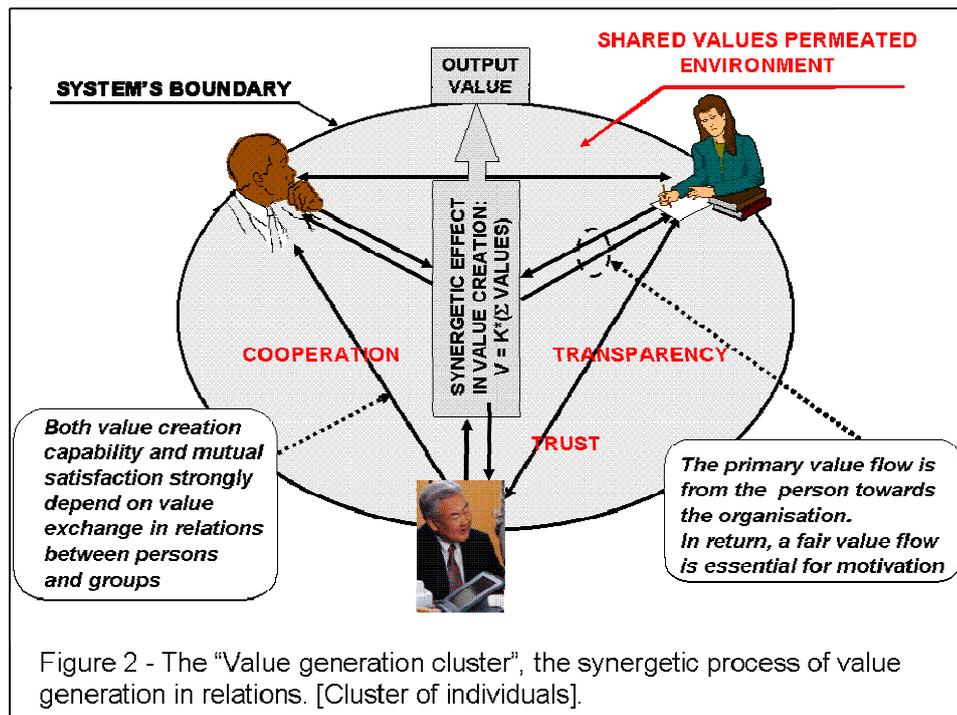
Figure 2 - The synergetic process of value generation in relations

The second important type of relations illustrated in the figure is that between the members (elements) of the "value generation cluster" (bi-directional arrows between the elements). To enhance value-generating capabilities, such relations should be based on trust, openness, willingness to share information and build knowledge together, mutual respect, empathy. Clearly, for these mutual relations too, taking such a character depends to a large extent on the values that are embedded in the environment.

Since most organizational activities require cooperation among people, the concept of value cluster can be extensively applied. Processes in particular, but also high-level research groups, cross-functional committees, all should be conceived and managed as value generation clusters. A person (or a group of people) can be (and normally is) part of different clusters. Clusters can become the building blocks of the organizational architecture. They represent a systemic solution to the problem of organizational architecture aiming at creating continuous improvement and innovation-propitious environments.

QUALITY MANAGEMENT MODELS AND SYSTEMS THINKING

Available space does not allow us to enter into the details of the relations and complementarity of systems thinking and quality thinking. Therefore, some indications about papers where I have discussed that subject are provided in the references[1]. Here I conclude with a snapshot on how to better integrate systems thinking concepts into TQM/Excellence Models.

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[1] See references: Conti, 2003 - 2004 -2006 -2007/2 – 2008/1 – 2008/2.

Figure 3 provides a model of the organization *as a social system* (technical sub-systems are therefore omitted) and its relations with the environment. The quality perspective is assumed; that is, the main stakeholders and customers are represented, as well as business processes.

Figure 3 – The organizational system, its subsystems, its transactional and independent environments

The systems space is divided into three parts: the *organizational system*, its *transactional environment* (the part of the external environment that can be influenced by the organization) and the *independent environment*. Within the organizational systems, interrelations among elements and groups of elements are schematically represented (people and formal and informal groups of people), they being the places where value generation takes place. As far as stakeholders are concerned, only management, employees and business partners are represented, for the sake of simplicity. Employees straddle the border between the organization and its transactional environment (they must be considered as both part of the system and independent subjects), while business partners are located within the latter. Customers are mostly in the independent environment, except those who are linked to the organization by a contract or by a voluntary, loyalty link.

TQM models are bound to better take into account the relations between elements and groups of elements, the "value generation clusters" (Figure 2). Intensity and quality of internal and external relations, not the organizational charts, speak about organizations' effectiveness and efficiency.

CONCLUSIONS

Applying the latest and most sophisticated management or ICT tools to companies, or public administrations, is often like applying a new patch to a frayed cloth: it widens the tear. Most

companies need more than patches: they need rethinking of their organizations. Awareness that management paradigms need deep changes starts to diffuse. What is rarely perceived, however, is that management models should reflect the sociocultural reality, which must therefore be understood and conceptualized through an appropriate model. The first paradigm then relates to the way the organization is portrayed. Organizations, companies in particular, are socio-technical systems. The technical aspect has traditionally been cared about. The socio-cultural aspect, on the other hand, is often considered marginal, and tackled at the level of motivation and involvement campaigns. It looks like taking care of how we dress, what we own, the objects that we use in our activities, and neglecting the body that is inside the clothes. It is time to care about the organization. Organizations are not mechanistic systems. Lack of balance between the sociocultural and technical aspects of the organization is at the root of many big problems that we face today – as is scarce knowledge of social systems behaviour. Bringing managers' attention to "the living thing" – the organization – and pressing for new organization and management paradigms, is the reason for papers like this one.

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