In this issue

Schultz's "Qualities of an exceptional leader"

Total Quality Management (TQM) has had a very long run: from the first teachings of Homer Sarashon, through Deming and Juran, all the way to its more recent practitioners. It has matured and run its course. What remains? What are its lasting, persisting and possibly timeless ideas, concepts and wisdoms?

Louis E. Schultz has pulled out some important ideas of the "Masters" and supplied their direct quotes in order to bundle them into a coherent TQM heritage, which would be likely to survive and persist. It is the sign of TQM's success that most of the ideas now sound very clear, obvious and quite unobjectionable. Yet, mere twenty years ago, they were all subject to heated discussions, professional derision and academic discourses.

The times have changed. Information technology (IT) and Internet have combined with network organization, knowledge management (KM) has emerged, New economy considers high quality "as given", and customers are ruling the world of business via direct contact and mass customization. Products and services have been redesigned for minimum number of separate parts and operations. Quality is no more traded-off against other dimensions, like cost, speed and reliability: modern consumers want it all, free, perfect and now. Quality has been built in and incorporated into the system. Modern concept of high quality includes also low cost, fast delivery and on-line responsiveness. Knowledge has become understood not as a database of slogans, statements and exhortations, but as a purposeful coordination of action. The world of action is rapidly replacing the world of information (words, numbers and symbols). In this new world, doing *one's* best is not good enough. One has to do the best, be the best and work with the best and then one has a chance to compete. Still, despite of all the revolutionary changes, the statements like: "Experience by itself teaches you nothing. You must have a theory. "A statement devoid of rational prediction does not convey knowledge" are certainly as challenging today as they were then. Or, "You cannot lead what you do not understand, you cannot understand what you have not done" – again, action or "knowledge in action" is the key.

The role of top management has changed as well. Top management is not the source of knowledge, strategy or quality – workers and managers are, through their daily efforts and intimate contact with their customers. Vertical hierarchies are being seriously flattened. Top management is becoming a tool because: "The person doing a job knows more about it that anyone else and is therefore the one best person to improve it".

One timeless quality practitioner should be mentioned: Tomás Bat'a. Both Homer Sarasohn and Myron Tribus acknowledge their debt to this great entrepreneur. The story of good management can never be told: it is forever evolving.

Lin and Hsieh's "Online procurement"

An important part of supply chain management is online procurement, driven by the promise of cutting supplier cost by some 15%. Traditional electronic data interchange (EDI) allows trading relationships, like Value Added Network, to flourish. Such private and proprietary networks are increasingly being replaced by Internet, disintermediating the links between buyers and suppliers, simplifying supply chain communications and cutting cost even further.

Online procurement does not need traditional client/server technology – a Web browser is sufficient. Product information can be called up from online catalog, ordering performed by sending e-mail, and employees are empowered to complete the transaction themselves from their desktops.

Lin and Hsieh address some online procurement implementation issues and discuss its impact on supply chain management.

Online procurement seems to radically reduce traditional paper requisition forms, purchase orders, and invoices, as well as their incessant sending, re-sending, checking and re-checking. Derived advantages include 24/7 access, little administration, shorter delivery times, improved buyer-supplier relationship, and so on.

Many companies are still slow with online procurement, lacking in-house IT/S expertise and sufficiently educated employees. Some suppliers do not

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maintain appropriate online catalogs. Most companies do not understand that a vigorous reengineering and e-engineering of the procurement process is virtually mandatory. Some are afraid of the purchasing department downsizing or even disappearance. But progressive, globally savvy companies are already far ahead with online procurement.

Lin and Hsieh introduce a case study based on JJM shipping company, dealing with some 500 suppliers and 200 buyers. The experience with EDI since the 1980s has helped in the transition.

It appears that the attraction of less paperwork and errors, combined with better inventory management, more accurate information and quicker delivery times could be all but irresistible to majority of companies. Even small enterprises can now use a web-based procurement and avoid the costly and slow paper pushing. Online procurement with strategic suppliers includes increased exchange of technical and commercial information, forging supplier integration, co-location and alliances.

Turban and Gehrke's "Determinants of website design"

Internet shopping is more and more dependent on the appropriate *website design*. The effectiveness of e-commerce website is becoming crucial, especially for the less known Internet newcomers.

As the traditional retailers and department stores are rapidly losing customers in the US and wealthy shoppers migrate to the Internet, the *customer focus* is king and ruling supreme. One only has to compare the less customer-oriented websites, like those in Europe, with the "our customer – our master" designs in the US, in order to realize the profound differences in understanding the e-commerce.

As M. Dell would agree, if you have a bad, customer-ignoring system and put it on the Internet, you have a bad and customer-ignoring system on the Internet – but for the whole world to see!

Turban and Gehrke have attempted an exploratory research into major categories of website determinants, like page loading speed, business content, navigation efficiency, security and marketing/customer focus. Of course, the efficacy of the *fulfillment process* is the ultimate and most important determinant of e-mail success. Witness Levi Strauss's abandonment of its own website due to the sheer incompetence and inability to secure the fulfillment process. Such companies have to attach themselves to more efficient portals (i.e., resort to e-parasitism of their hosts).

The authors also attempted to establish some weights of importance for the individual factors. Clearly, the website effectiveness would be rated differently according to gender and age groups, previous experience and, increasingly so, household income. The level and standards of expectations play a role: European websites are not expected to be very efficient and customer oriented simply because their brick-and-mortar businesses are not. These differences will most likely disappear soon due to the global-competition nature of the Internet.

The authors have used an interesting research strategy: comparing the opinions of website design experts with those of website users. As could be expected, the customers view the importance of website design factors *completely differently* than the experts in the field. This is due to transferring old-fashioned business, habits and ideas into a new medium. Effective Internet websites are not Fifth-Avenue shop windows, they do not tolerate flashiness, fanciness and immature acrobatics. Customers clearly value effectiveness, reliability, ease of use and the fulfillment process. Because different user groups manifest different priorities and preferences, the *organization by user groups*, rather than by product groups, allowing for website individualization and mass customization, will provide the most logical solution.

Simplicity and user-group differentiation are in. Anything "cool", flashy and hacker-oriented is out. Internet is on its way to become a serious, customer-oriented medium.

Pilotti's "Institutional Networking"

Prof. Pilotti continues his study of Italian industrial districts, published in *HSM* **18**(2) (1999), 87–105. He views industrial districts as multilevel neural networks, circulating knowledge and information through local production systems.

Although there is still some talk about vaguely defined "postfordism", increasingly the emphasis shifts from a vacuous concept of "flexible specialization" towards more specific notions of *networking and mass customization* (here called "extended specialization customized for final users") in order to provide a more useful understanding of the network economy and its regional manifestations.

Clear trends of mass customization point towards reintegration of task, labor and knowledge, not towards further specialization or division of labor. These old Smithian concepts have proven quite inefficient and inadequate for the global, customer-driven economy of networks, Internet, intranets and extranets. On the examples of Montebelluna district, Pilotti demonstrates the pitfalls of the old-fashioned division of labor in the Network economy. Globalization pressures of the 80s moved the district inevitably beyond standardization.

Another district analyzed by Pilotti is Maniago. Again, the inability to reintegrate and overcome the division of task, labor and knowledge has lead to crisis and stagnation vis à vis global hypercompetition. Very little process re-engineering, Internet integration, knowledge management and mass customization are at the core of the protracted difficulties with globalization. Meanwhile, assorted "Silicon Valleys" are taking over industrial districts as more suitable models for the Network Economy. Knowledge production, maintenance, degradation and renewal – i.e., knowledge autopoiesis – are indispensable for global network success. The traditional division of labor (the true "fordism" of northern Italy) has to be abandoned before it is too late.

Because all codified knowledge is nothing else than information, the true purpose of knowledge management is coordination of action, not management of databases. That "knowledge" appears to have been lost in some stagnating industrial districts of northern Italy. The oxymoron of "codified knowledge", reminiscent of cybernetics and artificial intelligence, is turning the focus away from action towards its description, i.e., away from knowledge towards mere information – the very opposite trend required of "Silicon Valleys" of the Network Economy.

Prof. Pilotti has provided an excellent analysis of the crises and stagnation of Montebelluna and Maniago districts and their continuing struggle to transform themselves into 21st-century regions capable of competing in global networks.

Carlsson and Walden's "Intelligent support systems"

Humans manifest a number of cognitive constraints and biases in adopting *intelligent support systems*. They do not really understand the support they get and disregard it in favor of past experience and visions. People cannot handle large amounts of information and knowledge, suffering from information overload and false self-confidence build up. In addition, people are frustrated by theories they do not understand and they believe that they get more support by talking to other people like themselves even if their knowledge is even more limited.

Old biases and habits die slow and hard.

Carlsson and Walden aim at implementing *hyper-knowledge* – an intelligent support platform for strategic management – and study how this platform may be enhanced with new results in intelligent systems and soft computing.

It is easy to verify that standard Decision Support Systems (DSS) methodology resembles ever more standard operations research methodology – even though the original intention was actually to replace OR/MS modeling with DSS modeling. The same can be said about Multiple Criteria Decision Making (MCDM) that was so long supposed to replace the single dimensional OR/MS models until it became indistinguishable from them.

Senior managers – the actual decision makers – have not become active DSS users and were replaced by junior analysts, market analysts, financial planners, controllers, etc. Staff people do not necessarily have the knowledge, experience, vision and insight to fully utilize the potential of a DSS for significant decision support. They are not decision makers but specialists in measurement and search. As such, they only carry out decisions made by others and therefore Decision Support is not for them. Something has gone wrong with the standard DSS approach and the promise of a more effective and productive way to deal with non-structured decision problems has been frittered away.

DSS as such is not important, it is the support we intend to provide which is the key element. DSS should look for areas where the proven skills of DSS builders can be applied in new, emergent or overlooked areas. It should make an explicit effort to apply analytic models and methods. It should embody a far more prescriptive view of how decisions can be made more effectively. DSS should exploit the emerging software tools and the experience base of artificial intelligence (AI) to build semi-expert systems. It should also re-emphasize the special value of DSS practitioners in taking advantage of developments in computer-related fields.

The term *active DSS* describes the ability to take the initiative without getting specific orders to respond to non-standard requests and commands.