In this issue

Zeleny's "Self-sustainability"

Socioeconomic systems cannot be simply sustainable, they have to be *self-sustainable*. There is a fundamental difference between the two concepts.

Sustainable systems can be sustained by external agents or through external systems, but they are not self-sustainable: they do not *produce* their own sustainability; they are not autopoietic.

Autopoiesis or self-production of systems is the necessary condition of self-sustainability. Traditional hierarchical enterprises can often be sustained over long periods of time through an external supporting agent, disbursing effort, money and resources. Once this external agent withdraws this support, system sustainability can be directly affected. Externally sustainable systems do not have to be internally selfsustainable. Free market systems are self-sustainable, hierarchies can only be sustainable.

The modern world faces a dilemma of having to deal with *non-sustainable* systems where selfsustainable systems are needed. Mere sustainability is not enough.

An infant is sustainable through his mother's care, but it is not self-sustainable as a separate, autonomous system. A mother-infant metasystem is not only sustainable through others, but becomes also selfsustainable in its social or even physical milieu.

Autopoietic (self-producing) organization can be defined as a network of interactions and processes involving production (poiesis), bonding (linkage) and degradation (replenishment). All three poietic processes are connected into a cycle of self-production. Self-producing systems are also self-sustainable.

Any modern enterprise is engaged in two types of production:

- 1. *heteropoiesis*, producing "the other" than itself (i.e., goods and services), and
- 2. *autopoiesis*, producing itself, i.e., its own production process, its own ability to produce.

Only a system that can continually "produce itself", one of the most neglected properties of traditional business, can become self-sustainable.

That is the name of the sustainability game.

Human Systems Management 16 (1997) 247-249 ISSN 0167-2533 / \$8.00 © 1997, IOS Press

Warner and Witzel's "General management"

Although Warner and Witzel discuss the new appeal of general management, it is really the process or process-oriented management that is replacing the functional management across the board.

General management certainly predates the specialized, functional version of "management" (based on the division of labor and specialization) of the modern era. Before the Industrial Revolution, all producers were also general managers and coordinators of the entire production process. Only much later the managers lost their ability to manage the process and became the functional specialists of today.

The whole-process orientation and the functional "silo" specialization stand at the opposing poles of what is management. It is the reengineering of the process (not of the functions) that is of utmost importance today.

Warner and Witzel have explored the role of the old, integrated general management within the new, horizontal and non-hierarchical, organization.

They ask: How are the functional proficiency *and* general process orientation to be combined or integrated? Are they not a contradiction?

Generalist can manage the whole process across many functions. The specialist delves into the depths of a single function, across a number of processes. Clearly, the generalist's task (if done properly) is more difficult and more challenging and, therefore, more needed, better paid and less available in the post-BPR era of global competition.

Process-oriented generalists are in short supply, while narrow-trained functional specialists are so abundant that they have to be laid off by hundreds of thousands, at least in the USA. The results are impressive and an economic envy of the world.

Interestingly, Warner and Witzel conclude (with some political savvy) that *both* generalists and specialists are needed, although the ravages of the US corporate downsizing destroy hundreds of thousand specialist positions, and not a single one of a processoriented generalist. Both are needed, but some are needed (much) more than the others. The business schools should respond right away. Instead of venturing into redundant and obvious "international" dimensions, they should start producing process-oriented generalists by a truckload. Of course, experience is needed more than with supportive functions, so that industry should also provide proper environments for post-MBA training and experience gathering; otherwise, or not too many good generalists shall emerge.

Smith's "Leadership system"

August W. Smith ventures to characterize *leader-ship* as a dynamic, ever-changing sociotechnical *system*.

Characterizing leadership as a system, rather than a personal trait, is not very common even though it is undoubtedly more correct and more useful premise. Leadership is a dynamic interplay between the leader and the led within a specific, but evolving context. Remove these relationships and contexts and the leader ceases to lead or the followers refuse to be led.

The leader and his organizational position are intimately interwoven. A person who for decades could not even lead his own life, is catapulted into a position and immediately becomes a "natural leader". A person who was vigorous, effective and even feared "born leader" is voted out, removed or deposed and his "leadership qualities" fizzle out.

Smith correctly perceives that what a leader does and achieves involves all elements and relationships of the system. Removing any aspect of the system undermines both leadership practices and a leader's overall performance. Compared to this, studying individual personal and behavioral traits is woefully insufficient. Take any "born leader", put him in the wrong context and watch out.

The process of strategy formation is being reversed and so are the processes of leadership. Leaders of today start with key resources, core competencies and operating processes and capacities. *Then* they determine which internal and external relationships can best support critical core competencies. *Then* they choose the right ends.

Leadership is therefore a continuous learning process, not a fixed personal characteristic. As the contexts change, the best leaders become the worst, spawning damage rather than advance, living off their ancient image. Leaders must learn in order to build organizations that can also learn and produce knowledge, the necessary condition of maintaining global competitiveness.

Traditional leaders do not learn. They do not emphasize improvement or innovation, but stick to intervention, implementation and coaching. They already "know".

This will not do in the knowledge era of the global competition. New, learning leaders, flexible, innovative and dynamic are needed. Otherwise the requisite "learning organizations" will not be learning.

Kim and Koo's "Asia-Pacific region"

The Asia-Pacific Economic Cooperation (APEC) was formed in response to the growing interdependence among Asia-Pacific countries. The whole region has been a major contributor to global prosperity and stability (56% of the world's production and 46% of its total merchandise trade in 1996) and is going to be further strengthened in this role if the dynamic and generally positive economic expansion of China continues and when its financial malaise is overcome.

APEC is based on open regionalism, advocating liberalizing trade and investment barriers unilaterally to non-member countries as well. Asian nations are almost exclusively export-oriented, compared to the non-exporting, inward-looking political regionalism of Eastern and Central Europe, still incapable of creating any sort of viable economic cooperation in that region.

Free trade must therefore be at the root of APEC philosophy of revival and its openness distinguishes it from a more or less homogeneous economic blocs like the European Union (EU) and the North America Free Trade Area (NAFTA). APEC aspires to become the basis of worldwide liberalization of trade. Strangely, one of the largest Pacific nations is the USA which still aspires to expand its reciprocity southward rather than westward.

The key to APEC and the worldwide trade is China. No political blunders are likely to prevent it from becoming a dominant economic power. It is in the interest of all to enfold China safely within APEC.

Most APEC countries have followed or are following the industrial path of Japan through the so called flying-wild-geese formation. Japan remains at the core of the division of labor, interdependence in trade and investment linkages spreading among the Asia-Pacific economies, although some "geese" went too wild and have to be rescued by IMF. Multilateral cooperation within APEC should also help to resolve the long-standing US–Japan trade dispute by restructuring the bilateral relationship to include reciprocity and burden-sharing.

Brännback's "Knowledge-based marketing"

Advancing knowledge- and customer-orientation of the world-class firms has significant impacts in the marketing area as well. Professor Brännback starts from the new observations that the traditional (physical) *marketplace* has now become (informational) *marketspace*.

Although this might be true on the surface, knowledge is different from information and it is the knowledge rather than information which has become the main form of capital and a crucial dimension of competitive advantage in a global economy.

While information is symbolic, knowledge is not. Information technologies are now spread world-wide, too cheap and too broadly accessible to offer any advantage in anything. In spite of ten-year old case studies, the advantage cannot be created from technologies which everybody (who is anybody) has. Significant advantage can only come from knowledge.

Knowledge, rather than symbolic description of action, is action itself. Knowledge as *purposeful coordination of action* is the core competence of the process-oriented world-class business.

"The product in the hands of the customer is still a part of the production process" is a dictum of the new marketing philosophy. It makes the customer central in both the output *and* input stages and does not root itself in selling functions. It tries to capture not just what customers say they would do or want, but what they actually do. Intended and actual satisfaction or action are fundamentally different things, embedded in their contexts and meliorated by their circumstance. Context-free, questionnaire-based symbolic marketing is probably quite insufficient in the knowledge era, if not doomed to failure.

Professor Brännback talks about the *knowledge-based marketing* concept, arguing for an integrated, process-oriented marketing activity, enabled by information technology. Although information technology (IT) is a precondition and necessity in the knowledge

era, providing rapidly diminishing differentiation and competitive advantages, the IT-enabling environment still remains to be built in some habitually lagging corporations.

Simply calling for newer and more evolved IT tools, techniques and concepts is not going to work. The very concept and environment of marketing has to be reengineered so that IT fits in as naturally and as imperceptibly as possible and with all its evolutionary potential.

Kline and Gardiner's "Groupware adoption"

Computer-Supported Collaboration and collaborative networks of teams rely increasingly on *groupware systems*.

Groupware is supporting telework and telecollaboration, allowing physically remote, geographically and temporally dispersed people to work together and interact effectively at a distance and over time.

Groupware forms include e-mail and e-business, screen-sharing, teleconferencing, group decision support systems (GDSS), telework, videoconferencing, etc.

Kline and Gardiner pull together some of the scattered research on groupware effectiveness, choice and use, and complement it with their own questionnaires to actual groupware users (rather than students or imaginary teams). The field of software/systems evaluative research is only beginning.

Managers/users clearly expect groupware to enhance group cohesiveness, better communication and meeting facilitation. The issues of saving time, reducing response time, saving money, etc. are less prominent and also less likely to be perceived as satisfied by current users.

The groupware technology itself is only beginning, needs substantial improvements and is still unclear about its own purposes. Current systems are unreliable, difficult to update, incompatible, unsupported, etc.

Although their participants were not randomly sampled and the sample was not large, Kline and Gardiner display confidence in the value of users' responses and their own conclusions. Their results could be helpful in the construction of groupware systems.