



Cultural University Center in Zlin

KNOWLEDGE MANAGEMENT AND STRATEGIC SELF-SUSTAINABILITY

A Human Systems Perspective

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ABSTRACT. The Bata Zlin is an example of orienting a city not about a cathedral, not about a city hall, not about the main square or a tourist center, but about the business and university core. Business provides jobs, university produces knowledge and a city becomes competitive. Nothing more is needed; all the rest is implied and will take care of itself. Supply jobs, produce knowledge to attract more business – and therefore more jobs - and there will be plenty of cathedrals, tourist attractions, cultural centers and even less of municipal halls. In this paper we describe Bata Zlin and similar knowledge and digital cities. Then we attempt to create a methodology for transforming cities and regions into job-producing knowledge and innovation enterprises. Jobs and knowledge assure life, make a city come alive, make a city a living organism. A modern city is an enterprise. To this end we present tools and definitions related to entrepreneurial university, knowledge, innovation, quality, added value and strategy – all the building blocks of a modern knowledge & innovation city.

Keywords: knowledge city, entrepreneurial university, self-sustainability, knowledge, added value, quality, innovation, strategy, cooperation triad, triple helix.

Introduction

There is a city in Moravia called Zlin ...
Zlin has evolved through its long-term symbiotic relationship with business: already in 1894, Tomas Bata founded his shoe factory in the town. From a sleepy town of

less than 3,000 inhabitants in 1900s, by 1930, Zlin had already grown to a population of more than 21, 000. Bata became its mayor for four terms in a row and could design the town according to the needs of his employees and its inhabitants.

Although Tomas Bata died in a plane crash in 1932, his half brother Jan A. Bata has carried on successful development of business and the city afterwards. Jan Bata invited in 1935 the famous Swiss architect Le Corbusier to design the layout for the whole town. His plan represented a paradigm shift from his earlier conceptions of urban design. Here he abandoned an anthropomorphic, centralized city model in favor of the linear city format. In the end, the progressive Jan Bata rejected Le Corbusier's plans to bring "the spirit of Louis XIV" to Zlin. He later decided on a local architect, Frantisek Lydie Gahura, a student at Le Corbusier's atelier in Paris.

Although Gahura's plan for the city was never fully realized, it made Zlin the only city in Czechoslovakia (and perhaps in Europe) that is not situated around a castle, cathedral or marketplace, but around the shoe factory. The functionalistic architecture prevailed: simple, box-like, red-brick houses are still among the best housing in the city and the Gahura style laid out during 1930s still asserts its presence. The unadorned brick, steel, concrete and glass surrounded by greenery in this garden city make Zlin a model of urban planning. This style is now being continued in the new Convention and Cultural Center of the University, reconstruction and renovation of the Bata industrial area, including the famous, probably the first European skyscraper (Building "21").



Le Corbusier and Jan Bata over the plans for the City of Zlin in 1930s



Bata Industrial Complex today

Through a strange fate of chance, both Le Corbusier and Jan Bata have died only a few days apart in 1965, as the announcement from TIME Magazine from Friday, September 3, 1965 confirms:

- *Died. Jan Antonin Bata, 67, Czech-born "world shoe king" when he was boss (1932-39) of the sprawling (now 80 plants in 67 countries), well-heeled (annual sales: some \$400 million) producer of cheap shoes founded by Half Brother Thomas, but who in 1962 was relegated to an outpost in Brazil after Nephew Thomas Jr. of Canada's Bata, Ltd., won control of the family empire in a spectacular court fight; of a heart attack; in São Paulo, Brazil. († 23.8.1965)*
- *Died. Le Corbusier (real name: Charles-Edouard Jeanneret), 77, brilliant, Swiss-born, French architect of the reinforced concrete age; of a heart attack while swimming off Roquebrune-Cap-Martin, France. († 27.8.1965)*

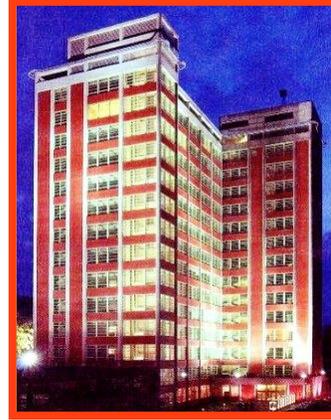


View of the city in 1930s

Another famous architect was Vladimir Karfik whom Jan Bata hired from the United States in 1930.¹ Karfik built the famous Building “21” where Jan Bata installed his also famous office in the elevator. This first mobile office is functional until today and attests to the innovative spirit of Zlín during Bata times.

By 1939, under the influence of Karfik, Bata became disenchanted with the mass produced functionalism of “red-brick boxes” and together they planned major reconstruction and rebuilding of workers’ housing in an individually-fitted style of the American modular design. Unfortunately, Jan Bata could not realize his grandiose plans, being forced into exile by the Nazi occupation in 1939.

¹ (As an interesting information tidbit, also British playwright Tom Stoppard was born in Zlín, as well as a former Olympic skier Ivana Zelnickova, later known as Ivana Trump.)



Building "21" today

Karfik is constructing the "Skyscraper"

One of the astonishing features of the city's architectural development was a synthesis of two modernist urban utopian visions: the first inspired by Ebenezer Howard's Garden city movement and the second tracing its lineage to Le Corbusier's vision of urban modernity. Zlin truly is a garden city, full of trees, gardens and green acres.



View of Zlin in 1933

There are many other architectural highlights in the city of Zlin. Among them, for example:

- The Villa of Tomas Bata (finished in 1911), carried out by the famous Czech architect Jan Kotera, professor at Prague's Academy of Fine Arts. Today the building houses the headquarters of the Thomas Bata Foundation.
- Bata's Hospital in Zlin (founded in 1927), designed by Frantisek Lydie Gahura.
- The Grand Cinema (built in 1932), the largest cinema in Europe (2580 seated viewers) in its time, designed by Miroslav Lorenc (1896-1943) and František Lydie Gahura (1896-1958).

- The Monument of Tomas Bata (built in 1933), designed by Frantisek Lydie Gahura. It has served as the seat of the Philharmonic Orchestra of Bohuslav Martinu since 1955.

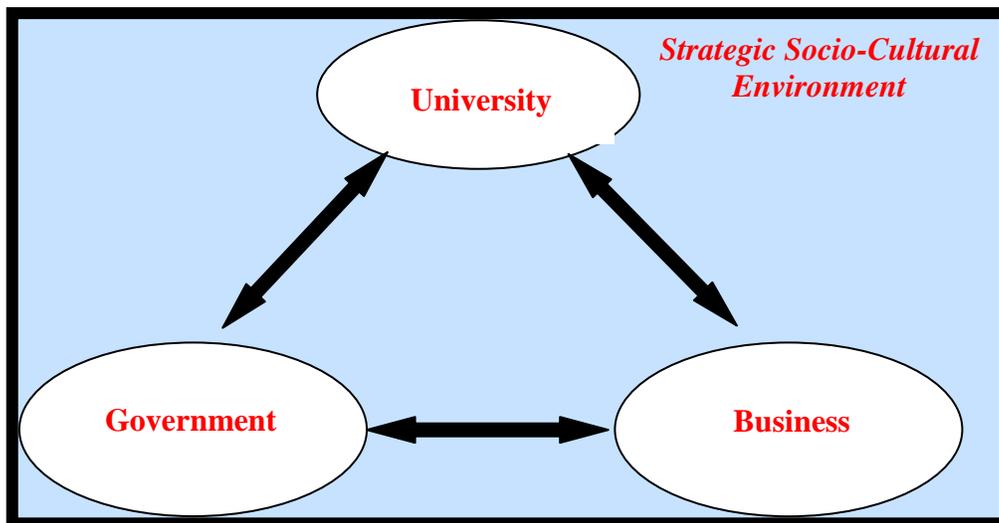
The Tomas Bata University (TBU) has built (in 2008) the University Center, a part of the planned multifunctional complex "Cultural University Center in Zlin". This complex consists of the new University Library building (5 floors), and the TBU Center building (4 floors) that are designed as two independent structures, joined by a covered atrium. The urban-architectonic concept of the complex has been designed by the team of Prof. Eva Jiricna - studio AI Design Prague.

The Triad

As we can see on the example of Zlin, business can and should become the center of city-regional design. The appropriate Innovation Strategy is created 'bottom-up' as an outcome of 'collective entrepreneurship' through cooperation among Business, Government and University – the 'BGU Triad', or Triple helix by Etzkowitz.

The key event is the creation of an Entrepreneurial University (EU), which takes initiatives together with government and industry to create a support structure for firm formation and regional growth.

The common objective of knowledge-based economic development efforts everywhere in the world is the creation of an 'Innovating Region'. An Innovating Region (Or 'Knowledge-Wisdom City') has the capability to periodically renew itself through new technologies and firms generated from its BGU Triad cooperation.



- **Business** – driving sphere; wealth producer, source of added value and competitiveness of the region, creation of employment opportunities, development of human capital in cooperation with the university sphere

- **Government** – enabling sphere, supporting factor; creates the optimal conditions for both driving spheres, i.e. physical, institutional and social infrastructure, for effective functioning of cooperation between university and business spheres.
- **University** – driving sphere; creation of human capital, production and transfer of information, knowledge and wisdom in cooperation with business sphere.
- **Socio-Cultural Environment** – creates the social capital through cultural traditions, social institutions, values and preferences, behavior and habits, trust and cooperation. It evolves relatively slowly and cannot be changed “overnight”.

Among good examples of Innovating Region we find Linköping, Sweden. Traditional “dyads” of university–government or government–industry are insufficient in the Global era – must be transformed into BGU Triad Transition to *Knowledge-based society* is the basic premise of the Triad model:

1. More prominent role for the university in innovation, on a par with industry and government in a knowledge–based society
2. Cooperative relationships among the three major institutional spheres: innovation policy is *outcome of interaction*, not a prescription from government.
3. Each institutional sphere also ‘takes the role of the other’. Entrepreneurial university, taking some of the traditional roles of industry and government, is the core institution of Innovating Region.

A region with a traditional cluster of SME firms, rooted in a particular technological paradigm is shortsighted and in danger of decline once that technology runs its course.

A more active role for the university in economic and social development, rather than merely playing a supporting role providing human capital and research resources, is the defining characteristic of the Entrepreneurial University.

The university is especially suitable site for innovation:

1. High rate of flow through of human capital in the form of students who are a source of potential inventors. The university is a natural incubator.
2. Potential source of new interdisciplinary scientific fields and new industrial sectors, each cross-fertilizing the other.
3. Overlapping network of academic research groups and start-up firms, with alliances among large firms.

People representing the Triad functions include Science Park and incubator directors, the university, the municipality, the regional county, council, private firms, and small business support networks.

Among other examples we find Shanghai Municipal Government announcing in 2000 the Digital City Shanghai strategy, or the Digital City Strategy in Waitakere, New Zealand.

To deliver the Digital City, four core concepts are needed:

1. Actions need focus: coordinate the delivery of solutions that **add most value** through rigorous measurement and prioritization of projects.
2. Work smarter: by working together maximize the efficient use of time, people and money.
3. Mobilize support for change: ownership of the Digital City Strategy by City council, businesses and universities to ensure words are turned into actions and actions into results
4. Stakeholders:
 - Business
 - Government
 - Community agencies and groups
 - City Council
 - Education and University
 - Individual citizens

Another concept is Knowledge City, approved by the University of São Paulo, now under construction with the support of banks, high tech companies (IBM), NGOs, important media groups in Brazil as well as developing a global network of knowledge cities. They have asserted that only if organizational culture and knowledge producing cycles follow creative, innovative paths can evolution take place. Four main themes must be developed:

1. Relation of global to local
2. Transformation of educational systems, problems of governing and governability
3. Relation of intellectuals and knowledge in the problem of educational change
4. Relation of knowledge management methods and educational reform

In other words:

- Knowledge Creation
- Continuous Innovation
- Competitive Advantage

Traditional observers view the organization as a *machine* for information processing tradition. Needed is a *biological view* of organization as knowledge producing organism:

- *win/win solutions* can be created
- *learn from failures* and setbacks of others
- develop a culture of *flexibility*
- *humanistic style* of leadership, guidance and teaching
- understanding of the *interdependent nature of relationships*

The Manchester City Council has created a concept called *Ideopolis: Knowledge City-Region*:

1. National priorities create a framework for local priorities in a way that best meets local needs

2. Government policy needs to be more “local”
3. Regional institutions provide a framework that encourages Ideopolies to work together within the region
4. Regional Development Agencies ensure that Regional Economic Strategies reflect the local needs
5. Government Offices should help local institutions connect their policies
6. More decision-making powers need to exist at a local level
7. City-region should have earned more autonomy where local leadership has proved effective
8. The creation of city-region institutions should be relevant to the local context – not a one-size fits all or so called the “best practices” approach

It is self evident that a human city cannot just be “designed” as a piece of machinery or architectural layout. City must become a *human city* which, like Zlin, can become a self-sustainable living organism. We have a long way to go, but we now do have all the tools: the only missing piece is the will.

What Is Self-Sustainability?

Systems with limited or curtailed communication can be sustained and coordinated only through external commands or feedback; they are not self-sustaining. *Hierarchies of command are sustainable but not self-sustaining*. Any self-sustainable system must secure, enhance and preserve communication (and thus coordinated action) among its components or agents as well as their own coordination and self-coordination competencies.

Consensual (unforced) and purposeful (goal-directed) coordination of action is knowledge. Self-sustaining systems must be organized so as to continually “produce themselves”: their own capability of their own action coordination. Even though we often talk about sustainable systems, it is the *self-sustainability* of systems that is of real interest. The question is not how can *we* sustain a given system, but how can a system sustain *itself* in a given milieu?

Sustainability and self-sustainability are directly related to system organization and its self-production (autopoiesis). How systems are organized is much more important than how a system’s individual agents think or what values they uphold. *Self-sustainable* systems are autopoietic and must therefore be organized for autopoiesis. Merely *sustainable* systems are heteropoietic because their sustainability does not come from within (from their own organization) but from the outside: from planned, system-sustaining activities of external agents. *Non-sustainable* systems are allopoietic, i.e., they are organized to produce things other than themselves. Allopoietic systems necessarily deplete their environment.

Heteropoietic systems can be sustainable as long as external agents sustain their system-sustaining efforts. Only autopoietic systems replenish their own environment and thus can become self-sustaining.

In summary, the presented view of sustainability can be characterized as follows: both sustainability and self-sustainability are time and context dependent system properties emerging from system organization. System organization must be continually

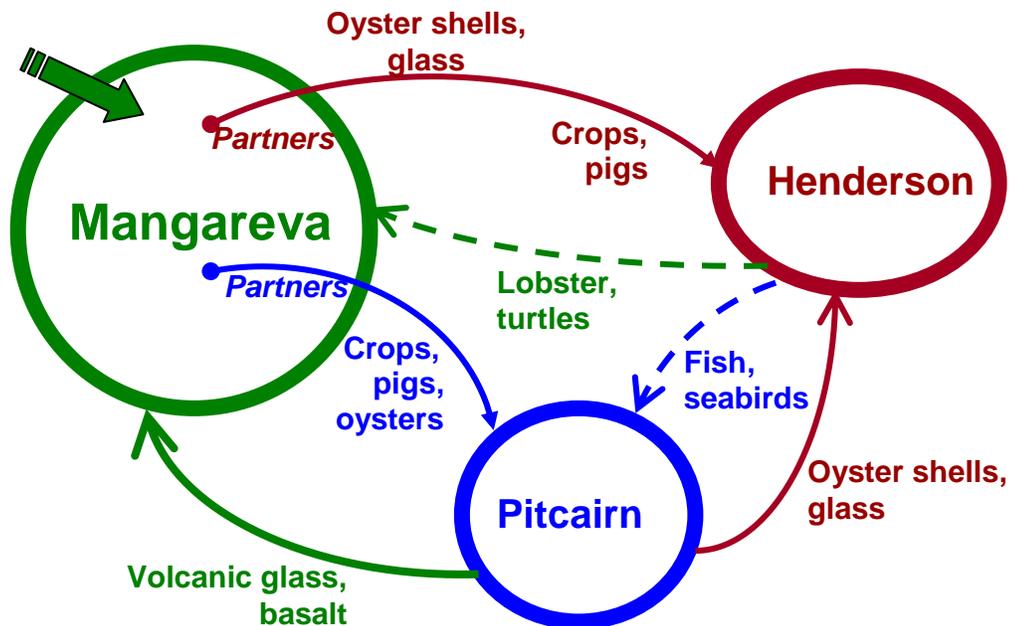
produced or renewed via operating a common, shared resource system, optimally managed through the competition and collaboration of agents.

Continued functioning of the organization requires continued coordination of action, i.e., continued production of knowledge. Most systems can be sustained over long periods of time through an external supporting agent that disburses ideas, efforts, money or resources. Once this external agent withdraws its support, a system's sustainability can be directly challenged. *Externally sustainable systems do not have to be internally self-sustainable.* Any relationship External agent → Sustainable system can be transformed into a *self-sustainable metasystem* [External agent ↔ System]. While an external agent can in principle make any system sustainable, only an integrated agent-system can become self-sustainable: through making the external agent an internal part of the system.

Many human and social systems are temporarily self-sustaining: they emerge, build up, persist, degrade, decay and disappear. Societies emerge, flourish and collapse. Cycles of self-sustainability are spontaneously self-organized, then amplified through human action, but ultimately depleted and dissolved.

A good example² where such transformation of self-sustainability into non-sustainability can be simply demonstrated is the case of three remote and isolated Pacific islands: *Mangareva*, *Pitcairn*, and *Henderson*. Because of their remoteness, they cannot be simply *sustained* by external imports, but as an interacting trio must become *self-sustainable* through their own internal flows of resources, ultimately turning *non-sustainable* and collapsing.

None of the three islands can support human population without external inflows of resources. Only Mangareva received such inflows, hundreds of miles away from Pitcairn and Henderson. Yet, all three islands supported an ancient Polynesian population. By the 17th century Mangareva population has been decimated and the other two populations collapsed and the islands became uninhabited. Here is the story of their biocycle.



Self-sustainable interactions and their dynamics

² Adapted from Jared Diamond's *Collapse*, Chapter 3: The Last People Alive.

Mangareva was capable of supporting a large human population of several thousand: plenty of water, forests, fish and shellfish, oysters, plantings of sweet potatoes, yams, taro, breadfruit, bananas, etc. It had crops and pigs, but it did not have high-quality stone for making sharp-edged tools and adzes for shaping wood needed for houses, canoes and other necessities.

Pitcairn had what Mangareva needed: plenty of volcanic glass and fine-grained basalt, perfect for making adzes. Only some hundred people could have been supported on Pitcairn. It needed crops, pigs and oysters.

Henderson has conditions for only marginal human existence. It is not volcanic, has no rocks or basalt, no sources of fresh water other than rain, only small trees and cave-based housing. But it had lobsters, crabs, green turtles, million-sized colonies of seabirds, large land pigeons. Yet a few dozen people were permanently sustained.

So the pattern has emerged: as the population of Mangareva grew it started importing volcanic glass and basalt for adzes from Pitcairn, while exporting oyster shells for fishhooks and tools to Pitcairn and Henderson. Volcanic glass and basalt from Pitcairn and Mangareva went also to Henderson, in exchange for sea turtles, parrot feathers, fruit dove, red-tailed tropic bird and other luxuries. Mangareva was also a source of crops and pigs for Pitcairn and Henderson. Exchanges of marriage partners and skilled individuals were especially crucial for small populations of Pitcairn and Henderson. The mutually advantageous, life-sustaining flows of resources are depicted as a cyclical network. After a period of time, the inflows and outflows of resources are balanced and stabilized, populations settled and self-sustainability established.

This balance of self-sustaining trade flows is indispensable for life on the islands. It is a precarious balance, susceptible to *external perturbations which have to be compensated through internal adjustments*. However, even small perturbations can be amplified when such compensations fail; the systems move into disequilibrium and an accelerating degradation of trade settles in. By about A.D. 1500 all trade had stopped in the region. The populations have collapsed.

First they did in Henderson when canoes from Pitcairn and Mangareva stopped arriving for the luxury items, bringing necessary metal, stones and oyster shells. Pitcairn collapsed next, about hundred years later, when canoes from Mangareva did not come anymore. Populations of Henderson and Pitcairn were trapped – and doomed.

So, what happened?

When Mangareva got their glass and basalt from Pitcairn – and produced their adzes and axes – the building boom started. New houses, gardens, and canoes – all required mining more and more wood, leading to fast and severe deforestation. The population swelled to many thousands, but the topsoil was carried away and ground denuded. Canoes were not built (there were no big trees) and fishing yields declined. There were too many people and too little food. The links with Pitcairn and Henderson have collapsed (no canoes, no need for adzes). The population of Mangareva slid into civil wars, permanent hunger and all forms of cannibalism.

With the collapse of Mangareva, the whole biocycle of trade network with Pitcairn and Henderson, but also with the Marquesas, Societies and Tuamotus, has disintegrated. Imported rats killed off the seabird populations of Henderson; humans over harvested the shellfish. Pitcairn became massively deforested from desperate attempts to establish gardening and build canoes. With no exchanges of marriageable people, incest and inbreeding further worsened the fate of the survivors. Nothing worked, the biocycle was broken.

Self-sustainable systems must maintain their ability to coordinate their own actions – producing *knowledge*. Self-sustaining systems must be knowledge producing, not only labor or capital consuming entities.

A knowledge based city revolves about business and university. In order to become a self-sustainable city/region, the concept of university must change. It must stop generating just information and start producing active knowledge. That is, it must produce businesses, firms, jobs and knowledgeable graduates. It must become an Entrepreneurial University.

What Is Entrepreneurial University?

We are entering an era of re-assessment of business programs, shifting from description of action (functional, “scientific” model) towards action itself, i.e. an *entrepreneurial model*.

It is being realized globally that management should become a *profession* and schools of management *professional schools*, like schools of medicine and law. Professions are always more about knowledge and wisdom, less about information, always more about doing and less about describing.

Professions work with an *accepted body of knowledge* (not information), *certify and guarantee* acceptable practice, are *committed to the public good*, and rely on an enforceable *code of ethics*.

Bennis and O’Toole recently wrote: “*The problem is not that business schools have embraced scientific rigor but that they have forsaken other forms of knowledge.*”

Every business school should run its own business, as proposed by Polaroid’s E. Land. This need for practice, innovation and entrepreneurship takes us to the notion of the *Entrepreneurial University (EU)*.

The Entrepreneurial University not only produces knowledge (rather than information) but engages in a new mission of *capitalization of knowledge*. It produces not only graduates and alumni, but also firms and companies: it becomes an economic actor in the regional and possibly – through a network – also in global economic and social development. This new mission puts the university into direct cooperation with the state and corporate sectors, forming the *Triad of cooperation*.

From the original “conservatory” of information and knowledge, through the producer and transmitter of information and knowledge, to the *university as an entrepreneur* – that is the vision which the triune EU network of alliances would be preeminently and prominently *positioned* to assume global leadership in translating into reality.

The university-industry-government is the proper triad for successful regional development. *New firms and their capitalization* is the proper output of a professional, entrepreneurial school. One-way, linear outflow without feedback is replaced by a self-sustaining cycle of knowledge and wisdom.

The entrepreneurial university still produces graduates and publications, of course, but “packages” them in firms and companies to take the created knowledge out with the newly minted entrepreneurs.

The trend is towards global alliances and networks in business and economic cooperation. It is moving away from self-absorbed islands of bureaucracy and political roller-coasters. Education, entrepreneurship and innovation are the next frontiers. Knowledge becomes the key to regional and national success in a global society.

What Is Knowledge?

Knowledge is the purposeful coordination of action. Achieving its purpose is its sole proof or demonstration. Its quality can be judged from the quality of the attainment (its product) or even from the quality of the coordination (its process).

What do we mean when we say that somebody knows or possesses knowledge? We imply that we expect one to be capable of coordinated action towards some goals and objectives. Coordinated action is the test of possessing knowledge. *All doing is knowing, and all knowing is doing.*

Every act of knowing brings forth a world. We “bring forth” a hypothesis about the relationships and test it through action; if we succeed in reaching our goal - we know. *Bringing forth a world of coordinated action is human knowledge.*

Bringing forth a world manifests itself in all our action and all our being. Knowing is effective [i.e., coordinated and “successful”] action. So, knowledge is *not* information. *Everybody in the world is now informed, only some are knowledgeable, just a few are wise.*

While information allows us to do things right (efficiency), knowledge already aspires to also do the right things (effectiveness). Doing the right thing, especially in business, requires not only knowing how, but also knowing why. *Explicability* of purpose is an essential ingredient of its effectiveness in attainment. *Wisdom is about explicability and ethics* of our doing.

	Technology	Analogy (Baking Bread)	Effect	Purpose (Metaphor)
Data	EDP	Elements: H2O, yeast, bacteria, starch molecules	Muddling through	Know-Nothing
Information	MIS	Ingredients: flour, water, sugar, spices + recipe	Efficiency	Know-What
Knowledge	DSS, ES, AI	Coordination of the baking process → result, product	Effectiveness	Know-How
Wisdom	WS, MSS	Why bread? Why this way?	Explicability	Know-Why

Taxonomy of Knowledge

Many informed people know what to do, quite a few knowledgeable experts know how to do it, but only a few *wise persons* know why it should (or should not) be done.

The last row of the taxonomy table already aims at wisdom:

Wisdom is *knowing why* things should or should not be done – locally, regionally and globally – and is, and will remain, in short supply.

Asking Why is fundamentally different from asking *How*.

Whenever we explore a coordinated process in the sense of *What* or *How* (What is to be done, how sequenced, how performed, etc.) we already accept and fixate that

process. The process is becoming *a given*, subject to learning or mastering, but not subject to exploration or change.

It is only when we start asking *Why* (Why to do it at all, why this operation and not another, why this sequence, etc.) we question the very structure of knowledge (coordination of action) and introduce the possibility of change. The *Whys* and the *Why Nots* are the most important questions in business and management and they should not be taken as givens. Only asking questions can lead to innovations.

In the global economy, frequent or continuous strategic change will become the norm of competitiveness. Doing the same, given thing better and better (continuous improvement) will be inadequate for strategic success. One has to *do things differently* (not just better) and *do different things*, not just the same ones. Such an important mode of strategic thinking cannot be learned and mastered by asking *How*, but mainly by asking *Why*.

What Is Innovation?

There are clearly many definitions and concepts as well as many popular images of what innovation entails.

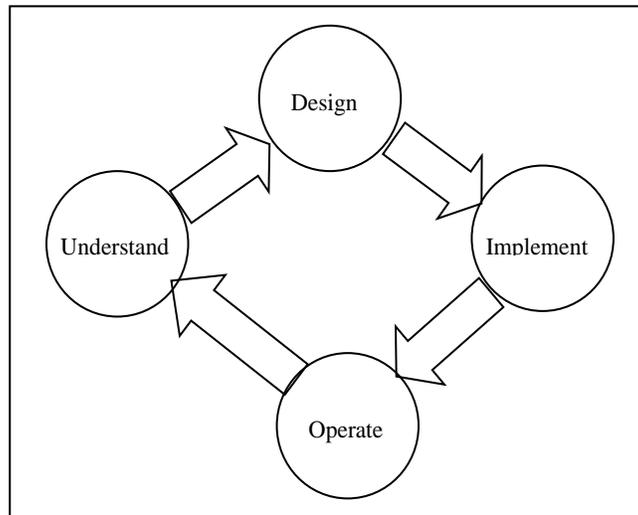
Innovation is such quantitative or qualitative improvement of a product, process or business model which significantly adds value to the customer/user, business, or both. Because added value is realized only through market transaction, innovation is created at the moment of customer/user purchase.

Alternately, we can specify innovation as the change in the hardware, software, brainware or support network of a product, system or process that *increases the value for the user or customer*.

From this definition it should become clear that not every *invention* (a discontinuous, qualitative change) is an innovation, and also not every *improvement* (a continuous, quantitative change) is an innovation. Innovation adds value and value can only be realized after the purchase. While invention can exist even without a customer, innovation, in order to exist, must be valued and purchased by a customer.

The value is being added through the *Innovation cycle*.

It is clear that innovation is a process, self-reinforcing and continually repeating cycle of activities. It starts with *understanding* (U) what a customer wants and how the resources are to be used to satisfy him. Then a corresponding *design* (D) solution is prepared and its value-adding (and money-making) potentials evaluated. If they are found to be significant, the design is *implemented* (I). The actual service delivery is achieved through its actual *operation* (O).



Innovation U-D-I-O Cycle

The U-D-I-O cycle above is a simplified interpretation adapted from Jackson's *The Escher Cycle*. This is a self-reinforcing learning cycle which must be continually repeated if any *learning from operating* is to take place.

The cycle must be *effective*, i.e. delivering the right answers to the right questions, not just *efficient*, i.e. delivering the right answers to possibly wrong questions – and thus developing *wrong* services and products quickly and cheaply; this would be the worst possible outcome.

Because innovation must add value, we can also conceive quality in the same vein and context. The only difference is that quality does not have to pertain only to innovation but to a standard product or process as well. In fact, most products must have been innovations at some point.

What Is Quality?

It is clear that the notion of quality must be closely associated with the notion of added value. In fact, quality and value seem to be inseparable, although value is more encompassing, while quality is often stripped to minimal technical and efficiency standards.

Quality is the optimal balance between effectiveness and efficiency.

A quality product, process or service provides the right customer balance between doing the right thing (value) and doing things right (cost). The value the customer receives for his money – that's quality.

The price (money) is therefore a constitutive part of quality. A "high quality" item cannot be priced above the maximum price a customer is willing to pay because then the added value is reduced to zero and the item is not purchased. It has "low quality" for me, it does not deliver value, and I don't want it.

Quality therefore does not exist *per se*. It is realized and thus created in the act of purchase (more precisely in the subsequent use) and through the transaction. So, the notion of quality is intimately associated with the customer/user and his act of purchase.

Quality is not stored in warehouses; it only emerges through the act of purchase and subsequent use.

We can of course recognize and acknowledge quality in items we do not purchase, but that is recognizing the quality for others, not for ourselves. Such “quality” is meaningful only as a point of reference or benchmark, not as a living aspect of our own economic behavior. In business, it does not matter what people think, say or imagine; the only thing that matters is *what they do*.

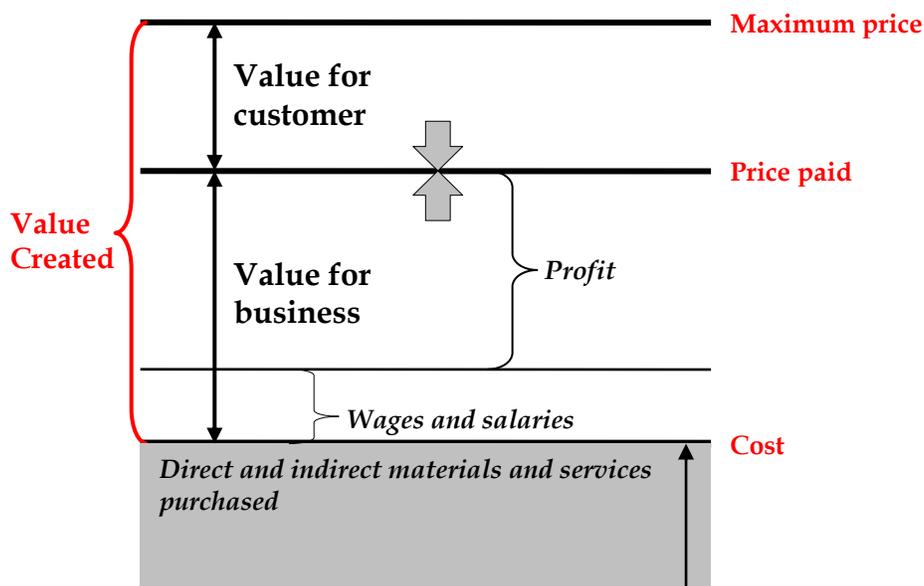
Unsold or unsalable goods, products or services *cannot be* of high quality, by definition. Quality is derived from customers’ preferences and realized through the purchase. Quality is not “built in” by engineers and “stored” in a warehouse – waiting for the customer to recognize the engineer’s sincere imagination and vision.

What Is Added value?

Knowledge is measured by the value our coordination of effort, action and process adds to materials, technology, energy, services, information, time and other inputs used or consumed in the process. *Knowledge is measured by added value.*

In any business (and human) transaction, value has to be *added to both* participating sides: the provider *and* the customer. Adding value is what makes the transaction satisfactory and sustainable.

There are two kinds of value to be created: *value for the business* and *value for the customer*. Both parties must benefit: the business – in order to make it; the customer – in order to buy it. In the global age it is precisely this business-customer *value competition* that is emerging as the hardest and the busiest battleground.



Adding Value for the Customer

In the above figure we attempt to explain the process of creating new value. This is crucial for the identification and assessment of innovation.

First, the customer pays for the service or product: the *price paid*. The producer subtracts the *cost incurred*, including all direct and indirect materials and services purchased. The difference is the *added value* for the business. This added value can also be interpreted as the *value of knowledge* engaged in producing the service or product. In order to pay wages and salaries, the production process and its coordination must generate this added value. Added value is the only source of corporate wages and salaries and profits.

If the added value does not *cover* the wages and salaries, then these must be correspondingly lowered. If no value has been added, then the value of knowledge is zero and no payment can be attributed to it. The business must add enough value in order to *cover* at least its workers and managers, their salaries and wages. If even more value has been created, then *profits* can be realized, up to the price received.

The customer, of course, must be willing and ready to pay more for the service/product than he actually paid. The *maximum price* the customer would be willing to pay must exceed the price the producer has asked for. The difference is the *added value for customer*.

If there is no value for customer – the maximum price is lower than the price to be paid – then the customer would not buy the service or product. In a competitive market, the customer pays money only for the value received, i.e. the value for the customer.

What Is Strategy?

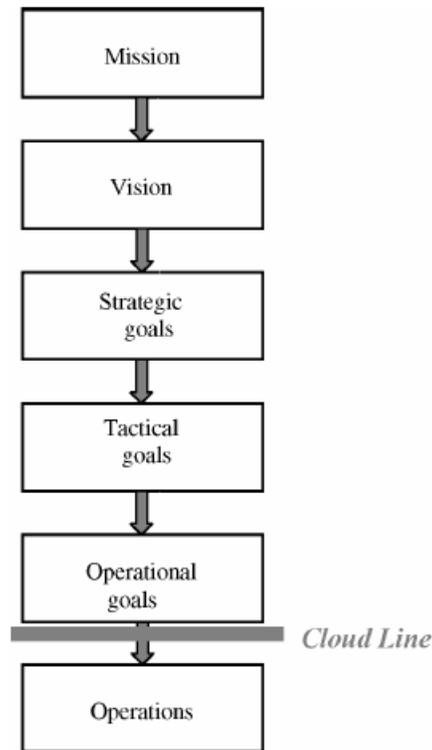
Strategy is what a company does. And what a company does *is* its strategy. It is plain and simple. Every company has a strategy as long as it is doing *something*.

There is no question what its strategy is; the only question is its effectiveness: if it brings forth the desired results. Assorted corporate mission and vision statements are *not* strategy and have little to do with strategy. They are simply descriptions of intentions, desires and plans – just words substituted for action. The dichotomy between the action and its description is often palpable. The gap between knowing what to do and actually doing could be excruciatingly real.

The old-fashioned strategists of the pre-information era were so effective precisely because they did not have a proper space for just *talking* about it. They had to deliver: engage in action and deliver the goods. One can also admire the action-based strategy of the animal world.³

Below we have the sketch of a *traditional strategy paradigm*. There could be some additional details in different versions, but essentially this is how the strategy is still pursued by many companies. Some institutions spend years hammering out their mission and vision statements and defining, testing and measuring the goals – before encountering the ‘Cloud Line’ and the problem of *Implementation*.

³ Observing a pride of lions in action teaches us more about strategy through mutual adaptation and readjustment than any flashy PowerPoint presentation of a symbolic description. (Lions are lucky that their space for PowerPoint presentations is so limited because they would die of inaction and empty roars a long time ago.)



Traditional “strategy paradigm” and its ‘Cloud Line’

The ‘Cloud Line’ is a real phenomenon: those above it do not see below, the strategists do not understand the problems of operations. Those below it do not see above, the doers do not understand what is being asked of them and how is the strategy to be implemented.

One can simply look and contemplate this scheme in order to realize that no viable strategy can ever emerge from such procedure, except by chance. Everything about the Cloud Line is just *symbolic descriptions* of the intended future action. Everything below the Cloud Line is only *pure action*, no descriptions. These are two separate domains: descriptions of action and action itself. They can and do differ; very rarely do they meet – unless the description refers to the “actual” action, present or past, not the intended action of the future. Because strategy describes the future; the two domains can rarely intersect.

So, there arises an eternal problem of implementation. How does one transcribe the descriptions of action into action itself? How does one implement a strategy? Most executives say that they are OK with the descriptions, they are fine above the Cloud Line and sometimes they do not understand why it should be so difficult to implement their descriptions (mission and vision statements).

The very notion of implementation is typical of the gap between doing and talking. If we accept that corporate strategy is about doing and not about saying, then the notion of implementation becomes mute and uninteresting. If the strategy is what company does, then there is nothing to implement: the strategy is already enacted. What we want is not implementing a description but changing the strategy itself: changing from one type of action into another.

The purpose is the change of action, the change in strategy. One of the end-products of such a change can be a description, a mission-vision statement *derived from the action itself*, not from executive musings. That way, the strategy and its change take place in one domain, in the domain of action.

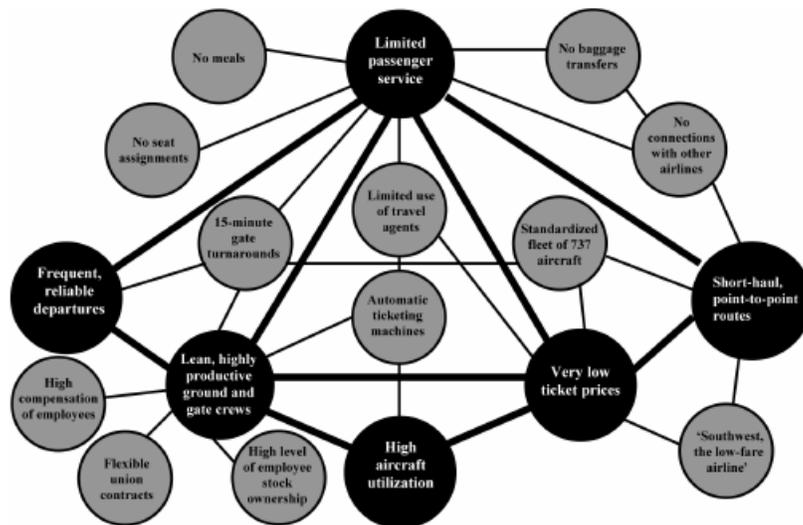
Let us outline the steps and proper sequencing of the strategic process.

First, we have to create a detailed map of key corporate activities to find out what company *is* doing – to reveal its actual strategy that is embedded in action. Remarkably, many corporations do not know their own activities and processes, what they are doing; do not know their own strategy. They only know what they say, through their mission statements. Here we can get some help from M. Porter and his idea of *activity maps*.

We have adopted a short example of an activity map from Porter (1996). According to Porter, strategy is its activities. Activity Maps show how a company's strategic position is contained in a set of customized activities designed to deliver it. In companies with a clear strategic position, a number of higher order strategic themes can be identified and implemented through clusters of tightly linked activities. The activity map presents high-order strategic themes in black circles and their corresponding activities in grey circles.

Second, after creating coherent *activity map*, one has to analyze the activities and evaluate their performance by comparing them to benchmarks of competitors, industry standards or stated aspirations. First, one has to ask a series of questions, like:

- Is each activity consistent with the overall positioning – the varieties produced, the needs served and the types of customers accessed?
- Are there ways to strengthen how activities and groups of activities reinforce one another?
- Could changes in one activity eliminate the need to perform others?



Activity map according to Porter

Answering such and similar questions already leads to changes in activities themselves, leading to reformulation and redrawing of the map. Each such implied change can be immediately enacted and the actual corporate strategy firmly established.

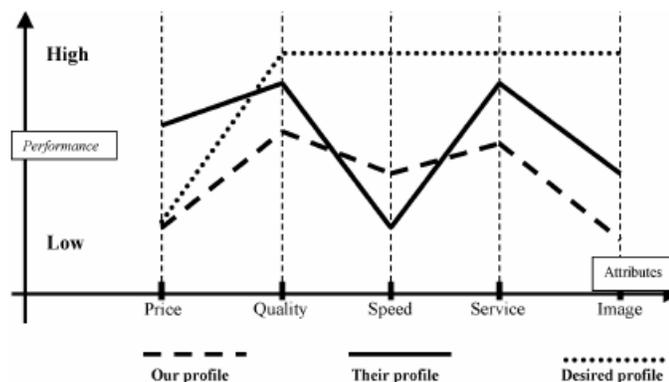
The next task is *benchmarking*. One has to be careful here: the purpose of benchmarking is *not* to match strategies or performances of the others. One does not want to become ‘like them’, similar or the same. The imperative of the global era is *differentiation*. We want to know how the others are doing not to become the same, but to become different.

This is somewhat similar to the *strategic diversification* of H. I. Ansoff, concentrating on the different directions in which a business might branch out or expand from where it is today. The firm is defined by the customers or markets it serves and the products or services it sells. It is not defined by its missions and visions, by its symbolic statements.

In order to establish the directions in which some activities should be changed, one has to make comparisons with the customer desires, competitor performances and industry standards and corporate aspirations. In the next step, another tool is needed: the *value-curve maps* or their earlier version – *radar (or spider-web) diagrams*.

Third, so called *value-curve maps* are produced in order to differentiate one’s activities from those of the competition. *Differentiation, not ‘catching up’ or imitation* is the key to effective competitiveness and strategy.

Below we present such a generic value-curve map. On the horizontal axis we list criteria or attributes while on the vertical axis we record their performance levels. In concordance with Zeleny et al. (1991) we refer to the individual patterns as *profiles*. So, there can be our profile, their profile and the desired profile.

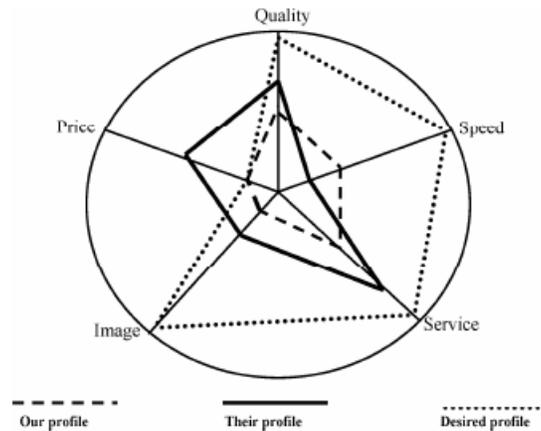


Search for differentiation via value-curve map

Individual attributes or criteria correspond to Porter’s themes (black circles in). So, the task of differentiation is to identify not just the performances we want to achieve on existing criteria, but to develop a set of new criteria (attributes or themes), which would differentiate us from the competition or standards. Once we identify such new attributes, we can develop the corresponding sets of activities (from activity maps), which have to be removed, changed or added (generated). That way we start changing the

activity map and its corresponding activities in a directed and purposeful way of desired differentiation.

We can transcribe the value-curve map used by Kim-Mauborgne (1997, 1998) into informationally identical form of radar (or spider-web) diagram of Zeleny et al. (1991). In radar diagram one can see in a compact form the domination, nondomination and relative positioning of individual profiles. Additional technical and representational possibilities are described in the original paper of 1991.

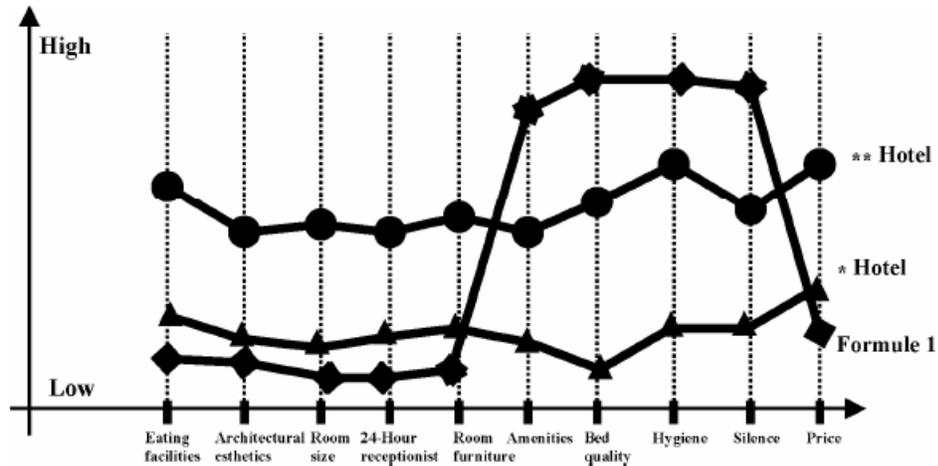


Radar diagram of the search for differentiation

The purpose of these maps and diagrams is to uncover the spaces and niches into which a strategic entry would be desirable. Companies do not succeed or fail because of their mission statements, but because of how well they *fit with their environment*. To fit well means, like everywhere in nature, to create a *niche*, to differentiate itself from others and to compete 'head on' as little as possible.

One has to *find a space in the market*, not just mindlessly emulate what all others are doing. In order to identify such 'open spaces', we often have to create them. Traditional benchmarking leads to standardization, commoditization and 'sameness'. The name of the game is *differentiation*.

Below we present an actual example of strategic positioning adapted from the work of Kim and Mauborgne (1997, 1998). It is the example of hotel chain *Formule 1* and its differentiation from traditional one-star and two-star hotels. Observe that comparing these two kinds of hotels with respect to ten attributes leads to virtually parallel *value lines*, adding little value to the customer.



Formule 1 example of Kim-Mauborgne

It is extremely difficult to enter such a competitive and well-covered market of identical, self-copying profiles at any interesting environmental level, other than strictly local. The competition is intense and ‘bloody’ – the *Red Sea strategy*. The purpose is to create a less crowded, more differentiated space where the competition is based on complementarity, cooperation and differentiation. Those who are complementary can better cooperate and enter alliances than those who compete head-on. One should seek, in the terminology of Kim-Mauborgne, the less intense and more complementary *Blue Ocean strategy*.

Formule 1 chain is an example of a successful innovation, which created its own new space and a significant new value for customers. They chose not to compete along traditional ‘hotel’ dimensions (got rid of the ‘piano music in the lobby’) and focused on *bed quality, hygiene, silence* and *price*. In these four key customer-driven attributes or themes they easily surpass their ‘industry standards’. Their innovation adds value.

The radar-diagram version of the *Formule 1* example is below. Observe that the dimensionality is well preserved and individual action patterns can be well developed.

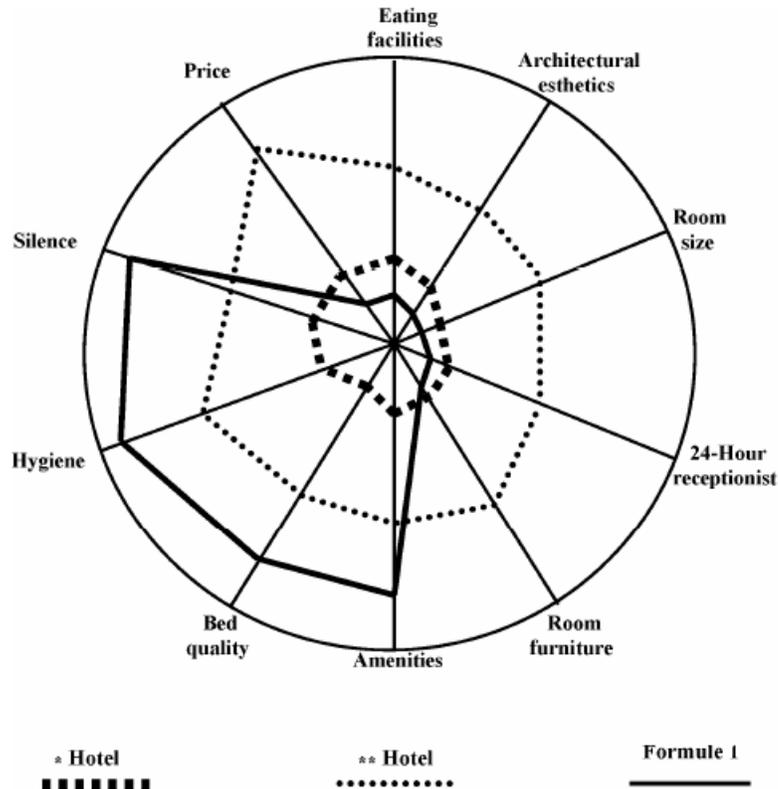


Figure 6 Radar-diagram version of *Formule 1* example

So, the next, the fourth step is about identifying the activities which are to be changed, dropped or added, thus creating a new activity map, a new strategy.

Fourth, identified selected activities are changed – in order to fill the opportunity spaces revealed by value-curve maps – as being most effective for successful differentiation. The rest of action space is *conserved*.

It is important to realize that the notion of change (which activities should be changed) is best handled not through attacking the change directly, but indirectly: identifying which activities should *not* be changed first. What should be conserved in the existing strategy opens new spaces of change in the new strategy.

What is central in evolution or any history is not what has changed, but what has been *conserved*. The study of change in human systems cannot be about what changes but what persists unchanged and remains conserved. So it is also with corporate strategy. The structures change, the organization remains. Some life forms disappear but living systems go on. Companies go bankrupt but business continues. Departments are cancelled and formed but organic corporations live on. Individuals come and go but institutions persist.

The conservation of system organization is the true contents of history. When some pattern of relations is being conserved, there is a space opened for all other relations to change around, which is conserved. There is no change without conservation.

When we say that a particular company, like the Bata Co., has existed since 1894, we mean that something has been conserved – that which we perceive as constituting the

identity of the company. Because of that preserved pattern, the company has a history. All the rest could and did change.

Finally, we are ready to enter the last stage of the strategy formation process: *Fifth*, after a newly changed action space (and its activity map) has emerged and become reliably functional, the descriptive mission and vision statement can be drawn for the purposes of communication. The description now *actually* describes the action and the action reflects the description.

Through the *wisdom systems* (Zeleny, 2006) through exploring corporate action via wisdom cycle of inquiry, we can effectively change the action and consequently the strategy, without ever leaving the action domain. Corporate strategy remains the doing, even though we are doing something else. No need to implement or execute the ‘strategy’ (a set of statements) – it has already been enacted.

Executives are supposed to ‘execute’ their strategic statements. Traditional strategies are hard to execute as they are probably created “above the Cloud Line”, far removed from the corporate doing. Often they should not be executed at all. Effective (forced) execution of incorrect or impossible to implement strategies is likely to damage the corporation and its strategic self-sustainability and resilience.

Conclusion

The old fashioned “Competitive Strategy” has doubtful use in the global society. It does not address cooperation, alliance or complementarity; it is not “Cooperation Strategy” and it does not cooperate with the customer/user. There is even a notion that customers somehow ‘undermine’ strategy. Such customer-free thinking makes strategy often unsustainable.

Such approach is based on traditional tradeoffs, it does not recognize tradeoffs-free economics and thus cannot add value to *both* the customer/user and business. Every company *has* strategy but some companies lack missions, visions and similar declarations. They need flexibility and continuous adjustment of action, not engraved and near-perfect mission statements.

Most companies, firms, cities and regions need *good* strategies; the bad ones they already have.

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