Thoughts for a complementary view to the Classic Economic Mindset

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• Updates and further information see: http://bengin.net/12/ickc_e.htm
Agenda

• Peter Bretscher
  Practical need for model that integrates intangibles
• Findings & Project
• 3 Levels of Enterprise
• Values, Visuals & Framework beyond Smith & Co
• Links
PETER BRETSCHER,
PRACTICAL NEED FOR MODEL THAT INTEGRATES INTANGIBLES
• Professional Mechanician (Handwork)
• Professional Engineer (Mindwork)
  (R&D, Production, Marketing, IP-Rights, transdisciplinary trouble-shooting, special tasks....)

• $\Delta$ between real live and (business) theory

• Technology & Knowhow Transfer
  - no books, no theory, no best practise....
  
  - need for inventing a model realize T’Transfer
    (one that includes knowledge and other intangibles)
Obstacles – why?

World 1
real reality

World 2
experienced reality

World 3
explained reality
FINDINGS & PROJECT
1. Bottom up structuring reality, 3D-Models

2. Metrics that enables quantifying subjective dimension of value

1. Strukturieren

2. Quantifizieren

3. Orientieren

4. Optimieren
1. Structuring the Elements of a Corporation
Three levels: Offerings, Processes, Prerequisites

- Primary-
  - Resources: 
    - Products / Goods
    - Services
    - Rights / Licences

2. Quantifying means (numbers and indicators)
- from P&L account to the P&L profile
- numbering system for tangible and intangible values

3. Development of Enterprise (Strategies, options....)
- Market-oriented (outside-in) and offerings-oriented (inside-out)

"Outside-In"
- Complying need of customers/ markets efficiently

"Inside-Out"
- Solving customer’s needs
- Making markets for existing potential

4. Closed Loop Business Relations
- planning, design, optimize Value Adding Net [VAN], beyond borders
- from the supplier of the supplier to the customer of the customer

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• Economic theory is a product, a tool that no longer fits the needs.
• Task
  Develop a new theory from bottom up that includes (tangible and intangible assets) and that makes subjective valuation quantifiable.
• Huge preliminary work
  3D Models, 300 GB
  Registered Copyright
3 LEVELS OF ENTERPRISE
1. Structuring the Elements of a Corporation
Three levels: Offerings, Processes, Prerequisites

- Primary-Resources:
  - Products / Goods
  - Services
  - Rights / Licences

3 types of processes:
- Management – Offerings – Background
  (= „leading“) creating fostering

Type of Business

Processes

Departments of enterprise
Primary-Resources

Primary-Resources:
- Products
- Business Means
- Documents
- Know-How
- Rights
- Finance

Departments:
- Marketing & Sales
- Research & Development
- Fabrication & Procuring
- Quality & Environment
- Personnel & Services
- Logistic & Finance
Vector Type 1
VALUES, VISUALS & FRAMEWORK BEYOND SMITH & CO
2. Quantifying means (numbers and indicators)
- from P&L account to the P&L profile
- numbering system for tangible and intangible values
Vector Type 1

Metrics

- Quantitative metric
  - Objective metric
- Qualitative metric
  - Subjective metric

Units

- gallons
- $%
- i$
- $pounds$
- square meter
- Number of pieces
- Enterprise
Vector Type 1

Metrics

Quantitative metric
  - Objective metric
Qualitative metric
  - Subjective metric

Units

- gallons
- $ (pounds)
- %
- sec
- manhour
- squaremeter
- Number of pieces

Clusters

- Functional departments
- Business units
- Countries
- Products
- Sales regions
- Balanced Scorecard

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Vector Type 1

No rectangle

For more complex visualizations
For comparison with other vectorprofiles
Vector Type 1

<table>
<thead>
<tr>
<th>Global Wealth Vectorprofile</th>
<th>Number of People [mn]</th>
<th>Control US$ [trn]</th>
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<tbody>
<tr>
<td>1 lowest</td>
<td>3,054</td>
<td>7.60</td>
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<tr>
<td>2 low</td>
<td>1,066</td>
<td>33.50</td>
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<tr>
<td>3 high</td>
<td>369</td>
<td>100.60</td>
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<tr>
<td>4 highest</td>
<td>30</td>
<td>89.10</td>
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</table>

4 cluster

X – axis

Y – axis
Vector Type 1

Cost-Value Vector

- Manual availability
- Hotline support
- Help locate repair service
- Manual updates
- Respond to letters
- Average-Vector

http://bengin.net/beta/05_cost_value_vector_e.xlsx
Vector Type 1

State of Global Workplace (Country-Level Engagements)

Engaged in %

Actively Disengaged in %

India, China, Germany, Switzerland, Austria, USA, Australia, United Kingdom, Croatia, United Kingdom

http://bengin.net/beta/10_global_workplace_gallup_2011_e.xlsx
First nine of Fortune 500 (Energy 2011)

Profits ($ billions)

Revenues ($ billions)

AES  American Electric Power  Constellation Energy
Williams  NRG Energy  Energy Future Holdings
Global Partners  Calpine  UGI
none  Vektorprofil  Average-Vector

http://bengin.net/beta/10_fortune500_energy_rect_e.xlsx
Vector Type 1
Vector Type 2
VALUES, VISUALS & FRAMEWORK
BEYOND SMITH & CO
Vector Type 2

Business potential of a project

i$
$

invest

expected earnings

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Vector Type 2

Business potential of a project

i$
$

expected earnings

invest
Vector Type 2

Business potential of a project

i$
$

$\text{expected earnings}$

$\text{invest}$
Vector Type 2

Business potential of a project

Invest

Expected earnings
Vector Type 2

Business potential of a project

(implicit)

business potential

invest

expected earnings
Vector Type 2

Business potential of a project

\[ b'potential^2 \geq (\text{exp. earnings})^2 - (\text{invest})^2 \]

\[ b'potential \geq \sqrt{(\text{exp. earnings})^2 - (\text{invest})^2} \]
Use value for coffee at Starbucks instead McDonalds? $(5\, \$)\quad (3\, \$)$

\[ uv^2 \geq (5)^2 - (3)^2 \]
\[ uv \geq \sqrt{(5)^2 - (3)^2} \]
\[ uv \geq \sqrt{25 - 9} \]
\[ uv \geq \sqrt{16} \]
\[ uv \geq 4 \]
\[ uv = 4 \, i\$ \]
Vector Type 2

Business potential of several projects

(i)

(implicit)
business potential

invest

$\

expected earnings$
WHAT TO MAKE WITH POTENTIAL
"traditional" business economics

"objective" Values [$, £, ¥, €, CHF]

- Rawmaterial
- Tools, Means
- Wages Mind
- Wages Hand
- Sales Rights
- Sales Services
- Sales Products
- P/L

Summe

Rights

Services

Products

Product calculation

Headwork
Handwork
Tools
Manufacturing
Original cost
Margin
Net SP
Margin
Gross SP

Hidden reserves

Current assets
Fixed Assets
Outside capital
Equity capital

Classic balance of tangible assets

"objective" Values

"imaginary" business economics

"traditional" business economics

Imaginary P&L of potential
Classic P&L

"imaginary" Values,
not tangible,
but real

$,
£,
¥,
€,
CHF

"subjective"

Values,
not tangible,
but real

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1. Stock exchange

2. Enterprise potential

3. Communicating values and progress
Economic Value Architecture & Engineering

- **REV** (Real Enterprise Value)
- **SPE** (Shareholders Profit Expectation)
- \( \text{REV} + \text{SPE} = \text{TEV} = \text{Total Enterprise Value} \)

\[ \approx |\text{Shareholder Value}| \]

\( \text{Value Track over time (Ortskurve, REV)} \)

\( \text{Stock exchange} \)

- Introducing axis for intangibles

\( \text{M (tangible) Balance} \)

\( \text{I (intangible) Balance} \)

\( \text{I (intangible) P&L} \)

\( \text{Structure} \)

\( \text{immat V} \)

\( \text{mat V} \)

\( \text{I}_c\text{-Function} \)

\( \text{As for example: BSC, EVA, BIG, UPR, B'E...} \)

Strategic modes – build – grow – reduce – kill

- invest money
- build potential
- make use-value
- earn money
- sell table silver
- show incompetence to use potential
FURTHER LINKS
Tips/Recommendations:

- Look for the template, which contains at least that number of clusters that you want to consider. (Not required clusters may be set to zero. The index may be revised directly in the chart.)

- Use for comparison of data sets - for example, budget and account of two companies or business cycles or... - the pure vector representation (without colorized rectangles). Use it for comparing monetary with monetary - monetary with nonmonetary and nonmonetary with nonmonetary indicators. You may be surprised about the new transparency you will gain.

- Make "Drill-Down" by copying the first page behind that page so much times as you have "clusters". Then structure the elements of the "sub-clusters" according to your needs and link the sum to the corresponding field on the first page.

- Connect your internal data with external data from web.

'Pure 10 vectors'
Comparison of 10 clusters - for example, divisions, countries, projects, cost centers..... - among themselves and within the overall context.

10 Vectors with frames. These frames facilitate untrained observer the orientation.

10 cluster starting x=0 and y=0 (without addition) with sumvector.

http://bengin.net/beta/basic_master_e.htm
Ökonomie neu denken - Jenseits der Finanzkrise (V)

English spoken

http://vimeo.com/38091481
Questions?

Thank You
Other slides
Paradigm shift in economic understanding
(Steps in mindware development)

1. „common“ science classic base
   - Activity: Solving puzzles
   - Limited catalog of problems
   - Not radically innovative
   - Precision of information
   - Perfecting tools and instruments

2. Crisis in the theory
   - Paradigm to be weakened
   - Insecurity of specific science
   - Rival theories
   - Discussion about fundamental principles

3. Scientific revolution
   - Coexistence of supposed incompatible MindSets
   - Polarisation of opinions
   - New candidates for paradigm
   - New paradigm to be conceived

4. „common“ science higher level
   - Abolition of inconsistencies
   - Suiting the terms, wording, metrics, formulas to the new real reality
   - Young generation as multiplier
   - Activity: Solving puzzles

Base: The Paradigm

Anomalies, Crisis in the reality
Explanation model fails

Change of paradigm
Switch to a new point of view

Time

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Literature:
Hochuli Gerhard R.: Das Wesen wissenschaftlicher Revolution, Herbsttagung Club NTB, 1983
Kuhn Thomas: Die Struktur wissenschaftlicher Revolutionen, Suhrkamp Taschenbuch 25, Frankfurt 1981
Development of Business Theory
(S-Curve of Product Development)

Rational MindSet I

Classic:
- Tangible Assets
- Monetary Value Metric

Rational MindSet II

Additional:
- Intangible Assets
- Subjective Value Metric

1750
Anna Goeldin
Last witch beheaded
(Switzerland)

1776
Wealth
of Nations
Adam Smith

1789
Moral
Sentiments

1800
Gauss

1900
Marx

1929
Keynes

1939
Schumpeter

1949
Mises

1986
MS-DOS

4 Bit
8 Bit
16 Bit
32 Bit
64 Bit

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Soros
I believe that the failure is more profound than generally recognised.
It goes back to the foundations of economic theory....


http://initeconomics.org/sites/inet.civicactions.net/files/
Soros%20SpeechBerlin%20INET2012.pdf
Limit of new techniques

Limit of conventional techniques

Use-Value

Potential with new techniques

Tangibles + Intangibles

Hand - Work + Head - Work
Professional solutions beyond classic limits
INSEDE enabling sustainability

Other influences – beyond economic reasoning

Plan your work

Work your plan

Consulting

Accounting

Legal

Audit

BWL Betriebswirtschaftslehre / Business Administration

VWL Volkswirtschaftslehre / political economy

INSEDE

R&D

Next economic reasoning system

© 2012 Peter Bretscher inseed_impact_chart01_e.vsd
Two Directions of Innovation (Technology and Techniques)

Technologies

Techniques

Rational MindSet I

Rational MindSet II

Methods for Mind, Business Models

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The two strategic business options in balance

Option A

Market

Strategic starting point

Strategic variables

factors of production
(land – labor – capital)

Option B

needs

Strategic variables

needs

Resources
(tangible & intangible)

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Enterprise Merry-Go-Round
Development of (economic) Value-Metrics

Why Metrics?
- comparing, comprehensible, reproducible
- Making rational communication easier.

1. Normative Metrics
   Principles, ....the xx "Commandments"

2. Qualitative Metrics
   hot, cold ...... AAA, A+, B, C

3. Quantitative Metrics (linear)
(2, 3, n-dimensional) $
% | i$

4. Quantitative Metrics (multidimensional)

Possible to calculate with (and visualize) 2D-Values

Only multidimensional metrics makes it possible to treat multidimensional value aspects in that kind that coherence remains intact and visualizable (even objective and subjective values).

Time axis

Strong need for interpretation

Measures reduce need for interpretation

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subjective customer value (of the product)

→ R&D effectiveness

qualitative / subjective

→ R&D efficiency

quantitative / financial

Drill-down

Total (Compound) Performance

R&D expenditures / input resources

Engine

Chassis

Body / Design

Brand / Image

Functionality

subjective
customer value
(of the product)
Improved Business by enhanced models

Holistic AG

- Potential
- Chances
- Threats
- Consequences
- Decision
- Measures
- Options

Triple – A – Strategy

- Products
- Services
- Rights

Field of stress for management

- Leadership tools
- Mathematical tools
- Virtual replacement of model

- Quantitative Models
- Qualitative Models
- Subjective criterion
- Objective criterion

Points of enhanced modeling

INSEDE © 1996, 2011
The long Road to Post-Capitalism: Schematic of Six Long Waves From 1790 to 2000

<table>
<thead>
<tr>
<th>Theory of Value &amp; Monetary Value:</th>
<th>Aggregate Labor &amp; Capital</th>
<th>Aggregate Dept &amp; Capital</th>
<th>Aggregate Technical Knowledge &amp; Cohesive Cultural Base</th>
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<td>Smith, Ricardo, Marx</td>
<td>Keynes</td>
<td>Leontief, Greenspan &amp; Stiglitz</td>
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Adam Smith 1723-1790
Karl Marx 1818-1883
Nikolai Kondratieff 1892-1938
John Maynard Keynes 1883-1946
Ernest Mandel 1923-1995
Wassily Leontieff 1905-1999
Alan Greenspan 1926-Present
Joseph E. Stiglitz 1943-Present

Carl Friedrich Gauss 1777-1855
New Theory of Numbers
(Complex Number = 2D-Vector on a plane with a real and an imaginary axis)

Based on graph of Reuben L. Norman, Jr.
June 11, 1998
Link: June 14, 2011
www.findicons.com