DIVERGENCIES & CONVERGENCIES BETWEEN SUSTAINABLE DEVELOPMENT AND RESILIENT SYSTEMS

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Agenda

- Background And Research Questions
- Differences And Synergies Between Resilience And Sustainability Thinking
- Resilience As Analytical Category
- The Role Of Resilience Thinking For Business Consulting
What’s the reason for a preoccupation with resilience thinking within the field of “traditional” business management?

**Question one:**
- What can businesses learn from natural ecosystems and systems thinking?

**Question two:**
- What makes business organizations resilient?
- Thesis about business resilience and corporate climate adaptation strategies – against the background of the fish sector (Beermann 2013)


Reasons for the career of resilience thinking in organizational research:

- **Environmental impacts**: Increasing importance of direct and indirect impacts due to discontinuities and abrupt changes, e.g. due to climate change caused impacts (Parry 2000, Folke et al. 2002, Heymann 2008)

- **Increasing interdisciplinary research** – transfer of resilience thinking from natural and educational science into business research. Businesses as complex and interconnected systems (Vester 1999, Malik 2006, Pfriem 2006).

- **Globalization and international supply chains**: rising structural vulnerability (Beermann 2013, 277) due to high interdependencies – how to design resilient supply chains and resilient sourcing strategies!
Background & research questions

- Why are we talking about divergencies and convergencies between resilience and sustainability? (Gunderson/Holling 2002, Perrings 2006)

- Resilience and sustainability are often (mis)used in similar contexts – coping with future challenges like climate change, food security, etc.

- A systematic analysis reveals with regards to contents certain differences - but at the same time: both have to take similar hurdles:
  - Problem of applicability
  - Boundary objects (Brand/Jax 2007)
  - Resilience and sustainability as competing concepts

- Different point of views existing regarding the need to combine resilience and sustainability thinking:
  - Accepting the theoretical thresholds of sustainability and resilience (Carpenter et al. 2001)
Differences & synergies between resilience and sustainability thinking

- Certain citations illustrate the variety of meanings:

“Unlike sustainability, resilience can be desirable or undesirable. For example, system states that decrease social welfare, such as polluted water supplies or dictatorships, can be highly resilient. In contrast, sustainability is an overarching goal that includes assumptions or preferences about which system states are desirable.” (Carpenter et al. 2001)
Differences & synergies between resilience and sustainability thinking

“Resilience should be seen as an additional criterion for sustainability.”
(Folke et al. 2002, 23)
Differences & synergies between resilience and sustainability thinking

“Resilience has been suggested as to be one of the guidelines for a conception of strong sustainability (Ott 2001, 2003, Ott/Döring 2004). Hereby the term refers to the maintenance of natural capital in the long-term in order to provide ecosystem services that provide instrumental as well as eudaemonistic values for society” (Brand/Jax 2007)
Differences & synergies between resilience and sustainability thinking

“The implications of this interpretation of SES dynamics for sustainability science include changing the focus from seeking optimal states and the determinants of maximum sustainable yield (the MSY paradigm) to resilience analysis, adaptive resource management, and adaptive governance.” (Walker et al. 2004)
Differences & synergies between resilience and sustainability thinking

**Differences**

- Sustainability contains an implicit normative focus
- First of all resilience is a component that refers to a certain system or system structures that gives no evidence whether a system state is desirable or not (resilience itself is no discrete value) (Beermann 2013)
Differences & synergies between resilience and sustainability thinking

Synergies

**Sustainability according to the Resilience Alliance:**
- Securing the functioning of ecosystems
- Sustainability is not about finding the optimal system state but about the conservation of ecological fundamentals to be able to achieve sustainability at all

**Sustainability according to Ecological Economics:**
- Sustainability is dependent on the secure functioning of ecological systems
Differences & synergies between resilience and sustainability thinking

**Synergies**

**Conceptional aspects:**

- Both concepts are somehow open in their further development and design

- There is a need for a continuous negotiation concerning the definition of resilient or sustainable systems

- Resilience and sustainability are context specific: a product of societal evolution
Resilience as analytical category

- How to promote business resilience while considering sustainability & company-specific aspects?

- Three-step-concept including resilience as analytical category

  1. Resilience of what?
  2. Resilience to what?
  3. Resilience analysis

Resilience principles:
- Flexibility
- Redundancy
- Innovation
- Learning ability
- Diversity
- Modularity

Source: Beermann 2013.
The role of resilience thinking for business consulting

- Business resilience gets more and more popular and common for management consulting:

For example PwC:

Strategic Resilience
Why you should read this blog

Welcome to the PwC Resilience blog, focused on helping organizations address the drivers of global instability — be they economic, environmental, geopolitical, societal or technological — and come out ahead.

Strategic resilience is not so much managing risk (playing not to lose) as shaping the future (playing to win). It's about rethinking and reinventing the way you do business — with a sophisticated, proactive approach that "prices in" the deep trends that are moving the world.

Resilience insights
Explore our library of thought-provoking insights
— written by thought leaders at PwC and in academia, and organised around breaking themes — on one of today’s most critical strategic issues.

Standing Together: A Co-ordinated Response to Drug Resistance
The challenge of becoming resilient in the face of growing antimicrobial resistance is taking on increased urgency. This PwC article offers a clear plan for action.

The Emergence of Novel Pathogens
Antimicrobial resistance threatens human health worldwide. While governments, industry and providers are addressing it, their efforts must be coordinated, argues the author.

Bouncing back with an ethically sound CEO apology
When a firm has been involved in an unethical incident, the CEO response matters. To restore trust, apologies must be ethically sound, argues Prof. Daryl Koehn.

Building agility into internal controls
The rapid escalation and shaky response to Europe’s horsemeat scandal underscore the need for a broader, more agile approach to internal controls.

Full Resilience insights library
The role of resilience thinking for business consulting

Business Resilience

Our Business Resilience (BR) team specialises in four main areas:

- Business Continuity – Allowing people to carry on during disruption, getting on with their work
- Technology Resilience – Protecting critical IT services, keeping services running when it matters
- Crisis Management – Knowing how to cope when the unexpected happens
- Financial Resilience – Stress testing your financial preparedness

What’s on your mind?

Hot Topics

Supply Chain Resilience

Building a resilient supply chain has become vital. The inter-dependent nature and networks of global businesses (production facilities, operating controls, stock management, transportation, logistics, information and cash-flow) and the implementation of global systems and technologies all combine to create new risks to the business.

IT Service Continuity

Data Centres can be affected by many events. Power and communications can be disrupted leaving systems unable to deliver. Without adequate solutions, recovery can be difficult. External audits often highlight the lack of preparedness in this area.

Data Centre Disaster Recovery (DR) Testing

DR plans are usually tested regularly, but are these tests really proving that those DR plans can be relied on to deliver when it counts?

Bringing you peace of mind

- Risk management
- Early warning of global risks
- Being prepared
The role of resilience thinking for business consulting

- In certain sectors resilience thinking is more and more stated, e.g. logistics, technologies and food sector

- Resilience is than associated with aspects of risk minimization and early warning. Being resilient is something businesses need to be regarding an increasingly insecure and dynamic environment

- Resilience is normally not linked to aspects of sustainability. It rather is understood as a desirable system state

- Partly, resilience is understood and linked to resilient supply chains and the development of resilient sourcing strategies:
  - E.g.: Water shortages in certain production sites.
The role of resilience thinking for business consulting

- Potential for resilience consulting. But considering the limits of resilience there is an urgent need to combine resilience and sustainability thinking – especially in the field of management consulting.

- Considering resilience as new management paradigm “must” lead to fundamental changes regarding supply chain management and sourcing strategies:
  - Developing resilient sourcing or supply chain strategies requires transparency about the supply chain + actors (tier 1, 3, tier n)
  - Consequence: Enhancing corporate responsibility
To put it in a nutshell...

- The application of resilience and sustainability needs to be done more precise and with cautious within science & management practice.

- Understanding resilience as analytical category might have potential for business application.

- Considering resilience as new management paradigm must result in an enhanced concept of corporate responsibility.
Contact

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