

The role of knowledge and capabilities in the environmental context *- a literature review*

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Presented by Hanna Nilsson-Lindén, PhD candidate
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Introduction

- Proactive companies more and more try to decrease the environmental load related to a product during its life cycle – this requires suitable capabilities
- No coherent research field that combines organizational capabilities and sustainable product chains
- The aim of the literature review - to draw on the field of organization and management studies to examine the role of knowledge and capabilities in the environmental context
- Papers included - those that combine perspectives on capabilities and/or knowledge with literature on sustainable product chains (or other related concepts such as LCM, GSCM, SSCM etc.)

Management of the environment: two main perspectives

In-house focus

Traditional focus on 'in-house' activities

Environmental management systems

Environment, health and safety (EHS)

'Environmental management'

Chain focus

A holistic perspective

Environmental consideration in the whole life cycle of a product

Interaction and collaboration between upstream and downstream actors

'Life cycle management' (LCM),
'sustainable supply chain management' (SSCM) etc.

Two main perspectives on knowledge

Knowledge management (KM)

Knowledge as an object and as possessed by people

Knowledge as something that can be created or obtained

Knowledge as something that can be shared, transferred and stored

Focus on tools and 'best practices'

Focus on **what** to learn

Knowing as practice

Knowledge situated in practice

Knowledge as part of people and practices

Knowledge as competence to act, and as something people do

Knowledge as applied, translated or used

Focus on **how** to learn, and the context of learning

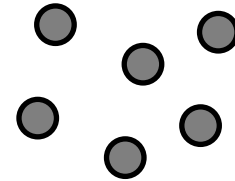
Coordinate the efforts of many specialists

Knowledge

Knowledge management

Knowing as practice

In-house focus

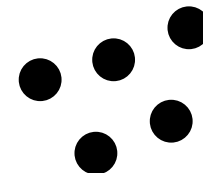
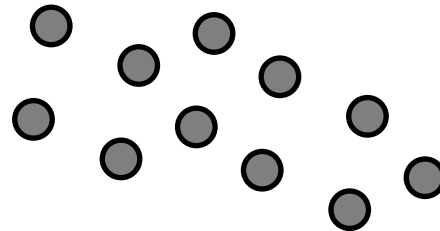


Ref. no. 3, 4, 5, 16, 17, 35

Ref. no. 29

Environment

Chain focus



Ref. no. 7, 8, 9, 10, 12, 14, 20, 22, 23, 25, 27

Ref. no. 6, 21, 31, 32, 33

- The search aimed at environmental chain focused literature and less on in-house focused environmental literature

Comparing two environmental perspectives that applies knowledge management

Chain focused knowledge management

Environmental chain focus (LCM, GSCM, SSCM etc.)

Environmental knowledge treated as object, to be combined, transferred, shared, stored

Focus on environmental training and education, and tools for LCM and knowledge sharing

Lacks focus on local context and adaptation, on how this learning / sharing take place

Environmental knowledge management

No distinct discussions of LCM or sustainability and collaboration with other actors

Focus on IT, technology and tools

Focus on creating and sharing within the company

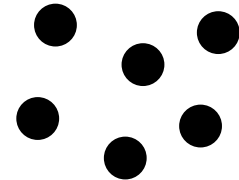
Not focus on how things are done or that different contexts matter for implementation

Knowledge

Knowledge management

Knowing as practice

In-house focus

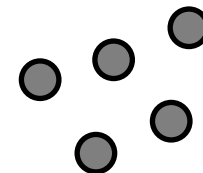
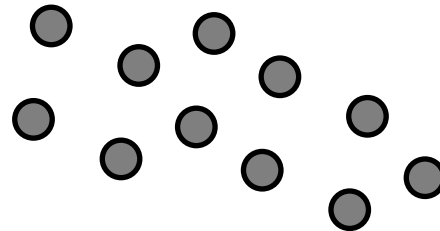


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- The search aimed at environmental chain focused literature and less on in-house focused environmental literature

Comparing two knowledge perspectives on environmental chain management

Chain focused knowledge management

Environmental chain focus (LCM, GSCM, SSCM etc.)

Environmental knowledge treated as object, to be combined, transferred, shared, stored

Focus on environmental training and education, key environmental capabilities, resources and tools

Lacks focus on local context and adaptation, on how this learning / sharing take place

Practice-based chain focus

Environmental chain focus, environmental product development

LCM tools, but focus on the learning process and adaptation and local context

Importance of understanding knowledge and develop a supportive culture

Focus on co-management, stakeholders, networks and communication across functions

Focus on local knowledge, knowledge coproduction, joint decision-making, and focus on how rather than on what

Conclusions: the role of knowledge and capabilities in the environmental context

- Environmental chain related literature dominated by a KM perspective
- Also the in-house focused environmental management literature has mainly a KM perspective
- Onesided approach: lacks attention on local context, adaptation to specific conditions and supportive activities for learning
- More studies with a practice-based perspective can shed important light on this complex and young field

Thank you!

Hanna Nilsson, PhD candidate

SKF-Chalmers University Technology Centre
for Sustainability
hanna.nilsson@chalmers.se

Henrikke Baumann, Associate Professor

Chalmers University of Technology
Environmental Systems Analysis
henrikke.baumann@chalmers.se

Andreas Diedrich, Associate Professor

University of Gothenburg,
Gothenburg Research Institute
andreas.diedrich@gri.gu.se

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