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School of Economics

Emerging business models toward responsibility: Is there demand for innovative material efficiency services?

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Overview

- Critical issues related to material efficiency services
- Customer needs and perceptions in the literature
- Customer needs and perceptions of advanced material efficiency services
 - Something on the drivers – outsourcing,
 - Barriers for purchasing material efficiency services
- Conclusions



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Background

- Novel business models and services are seen as potential solution for achieving eco-efficiency, sustainability or responsibility goals in business
- Often these business models require far-reaching partnership in order to succeed
- Material efficiency services
 - Services provided by an external service provider, aiming at minimizing or reducing the use of materials in customer's operations (Halme et al. 2007, 127)

Critical issues related to material efficiency services

- Potential customers' understanding of the material efficiency concept
- Material efficiency needs of potential customers
- Outsourcing
- Barriers for purchasing material efficiency services

Some studies & literature on eco-efficiency, services, customer needs, etc.

- There are service providers offering extensive material efficiency services, e.g. BASF (chemicals management services) and
- [Research](#) and ideas on sustainable product-service systems, eco-efficient services, eco-efficiency concept, waste prevention, etc.
- However, there is only some knowledge about [customer needs](#) related to these services
- Previous research customer needs and behavior have focused mainly on e.g.
 - Consumer behavior, attitudes, decision-making
 - Eco-tourism
 - Energy services
 - Eco-labeling
- Is there a demand for innovative material efficiency services and what kind of a demand?

Data: Interviews & survey

30 interviews

- retail and wholesale industry
- construction industry
- logistics & forwarding
- manufacturing industry

A survey directed to the largest Finnish companies

n=294

(response rate 18,4 %)

Results: Potential customers' understanding of the material efficiency concept

- Understanding the concept Material efficiency
 - Pre process (Upstream)
 - Post process (Downstream)
 - In-process (In-house)
 - It is easier to deal with a problem than interfere with its prevention
- Differences between industries
 - Manufacturing industry: Broad understanding, but “jealousy” over their own processes
 - Retail and wholesale industry: Waste management rather than changing the processes

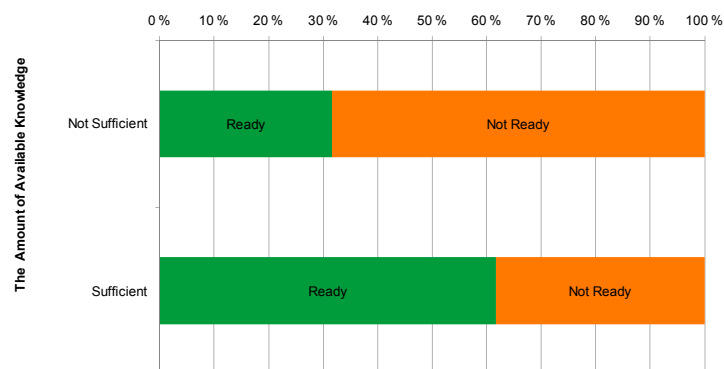
Results: Material efficiency needs of potential customers

- Customers' customers ask for material efficiency
- Desire for comprehensive material efficiency services (turnkey)
- Increase the knowledge and capabilities of the personnel on material efficiency
- Help in understanding of the requirements of legislation and regulations
- Expertise on material efficiency
- Information on own material flows for development and reporting purposes
- Cost-savings
- Release management and staff resources for the core business operations

Results: Outsourcing

- The question of material efficiency services is intertwined with respondents **attitude** towards outsourcing services
- The core business controversy
 - One should focus on the core operations. However, is there enough expertise to purchase more developed expert services (here material efficiency services)?
 - The more knowledge on the subject the more willing to use outsourced material efficiency services
- Purchasing expert services
 - Is the service provider's sales person able to show the business case?
 - Purchasing policy: The lowest purchasing price or the evaluation of the lifecycle costs and benefits?

The relation between available knowledge and willingness to use outsourced services: Waste avoidance

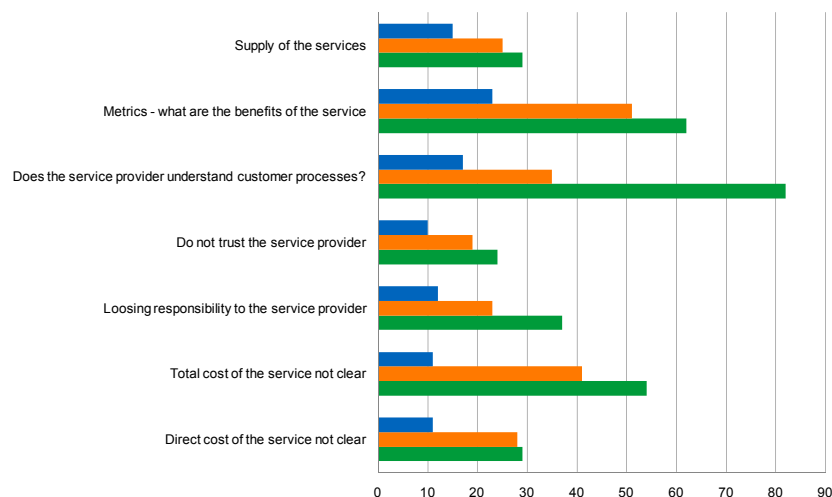


Results: Barriers for purchasing material efficient services

- Not enough resources to gain knowledge about the supply of comprehensive material efficiency services (time, people, funds)
- Suspicion that service providers do not have the capabilities to deliver the service or do not have enough information on customers problems
- Earlier experiences of outsourcing (in general) are disappointing
- Some actors in the organisation oppose material efficiency
- Legislative requirements prevent changes to the processes
- Unclear liability boundaries

Barriers for using material efficiency services

■ Logistics, forwarding, shipping & construction ■ Wholesale & retail ■ Industry



Barriers for using material efficiency services

"Environmental reporting. They had build their system kind of district/region based - according to their own needs, not the customers..."

Does the service provider understand the customers processes?

Do not trust the service provider

"My boss told me that there were these sales people ...they did not have a clue what our company was doing (paper & pulp) and they tried to offer something that didn't fit in our operations..."

"My interpriation is...the service providers do not see their primary goal to be waste avoidance or managing side streams for the custer...and it is a kind of a questionable situtation."

Conclusions

- Prevention/material efficiency is harder to sell and purchase than post-production waste management services (e.g. Recycling, reuse)
- Communicating the business case
- Excess of information on operations and processes
 - but on much of it is **irrelevant** from material efficiency (responsibility management) perspective

Thank You!

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