Consumer Demand for Circular Economy Products

Does higher circular economy performance increase demand?
About RISE Sustainable Business

• Combine a genuine drive to transform industry towards sustainability with a business model and profitability focus and scientific standards.

• Constellation of academic researchers and seasoned managers.

• Conduct and apply state of the art, actionable research on circular business models and servitization.
Background on Circular Economy

• Companies and governments are increasingly recognizing the need to transition to a circular economy.

• The Swedish Government recently launched their strategy for a circular economy.

• Despite growing knowledge about how to design circular products and businesses, little is known about customers and their openness to circular products.
To address this, we investigated two pressing issues:

This research funded by the Marianne and Marcus Wallenberg Foundation.
What is the consumer demand for circular offerings?
How can labels inform product circularity?
Study Background
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• 800 adults in the United Kingdom participated in our study

• Choice-based conjoint experiments were used to examine their preferences to various product attributes

• Product attributes tested included price, a hypothetical circular economy score (CE Score), and other features such as warranty and repairability
Study Background

• CE Score was derived from the C-Metric (Linder et al., 2017) and measures the percentage of recirculated content in the product

• Five possible scores were presented to participants:

  The Circular Economy (CE) Score varies from 0% to 100%, which means:
  0% circular – everything in the product comes from new materials
  25% circular – the product contains recycled materials
  50% circular – half of the product is made of refurbished/reused parts
  75% circular – most of the product is made of refurbished parts
  100% circular – the whole product is reused or made of refurbished parts.
Study Background

• Two types of products were studied: a mobile phone and a robot vacuum cleaner
Findings
Customers appear willing to pay for circular products.

- Participants almost always preferred the more “circular” product when compared to products with otherwise identical attributes.
- However, the level of ‘circularity’ (CE Score) appears to matter to customers.

“Circular products can likely successfully enter the existing market at the retail price of a new product.”
Market share before and after introduction of the circular product.

Shares of Preference - mobile phone, current market; scenario A1
- Used product bought on an auction site (Product 1)  
- Used product bought in a specialised shop (Product 2) 
- Used product bought in a specialised shop 2 (Product 3) 
- New product (Product 4) 
- 70.01%
- 11.25%
- 7.58%
- 11.16%

Shares of Preference - mobile phone, 5 products; scenario A1
- Used product bought on an auction site (Product 1) 
- Used product bought in a specialised shop (Product 2) 
- Used product bought in a specialised shop 2 (Product 3) 
- New product (Product 4) 
- 50% circular product (Product 5) 
- 36.01%
- 9.42%
- 5.16%
- 7.55%
- 41.85%
Customer demand varies according to product circular economy score.

- Participants were willing to pay more for products with low or moderate levels of circular content.
- Willingness to pay more for products appears to disappear as the proportion of recirculated content increases.

Less willing to pay more at higher CE Scores
Willingness to pay (WTP) vs. CE score for mobile phones

(Results from one experiment with mobile phones)
Labeling products for a circular economy could be economical.

• A CE score increases customers’ willingness to pay more for mobile phones and robot vacuum cleaners at low levels of recirculated content.

• Yet, communicating circular levels around 50% and above might not yield additional revenues.

• Customers may perceive products with higher circularity as having higher risk and being of lower quality.
Product type is likely to influence preferences.

- Participants were more concerned about the appearance of mobile phones than for vacuum cleaners.
- This is likely because mobile phones are highly personalized items and their marketing is based on strong brand images.
Read more about the research in this presentation:


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RISE Sustainable Business undertakes actionable research for the transition to a circular economy. In-depth knowledge areas include business model innovation, business financing, future-adaptive product design, and key performance metrics.
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