Empowering employees for sustainability innovations: Towards a concept of Employee-Driven Eco-Innovation

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1 The Approach

Research Context

- Employee participation in eco-innovation processes

Research Gap

- Insights into the application of the concept of employee-driven innovation (EDI) on eco-innovation development

Guiding Questions

- Why can employee participation be particularly beneficial for eco-innovation processes?
- How can this potential be leveraged?
2 Eco-Innovation: Definition, Chances & Challenges

Definition

“new products and processes whose \textit{greenness} is significantly better or that impose smaller \textbf{environmental costs} than conventional or competitive equivalents”  
(see Driessen et al. 2013)

Chances

- Environmental improvements
  - Intangible assets
  - Customer satisfaction & demand
  - Competitive Advantage

Challenges

- Target relevant \textbf{customer segments}
- \textbf{Composition} of product characteristics
- \textbf{Discrepancy} between developers’ ideas & customer preferences
3  EDI: The Basic Concept

Definition

“the generation and implementation of ideas, products and processes [...] originating from interaction of employees, who are not assigned to this task”

(Høyrup et al. 2012, p. 8)

Characteristics

- **(Unintentional)** Innovation outcome
- **Extra-role** behavior
- Systematic integration of employees in all innovation phases
- **Starting point**: Bottom-up as well as top-down innovation activities

(Høyrup et al. 2012; Kesting & Ulhøy, 2010)
4 Conceptualizing Employee-driven Eco-Innovation (EDEI)

Definition

“ordinary’employees’ voluntary engagement in innovation activities within an organizational context that, intentionally or not, lead to environmental improvements”

Characteristics

- Focus on eco-innovation development
- Various employee potentials
  - Tacit Knowledge (Kesting & Ulhøy, 2010)
  - Consumer Experiences (Schweisfurth & Herstatt, 2014)
  - Green Identity (Ciocirlan, 2016)
4.1 Various Employee Potentials for EDEI

**Tacit Knowledge**
- Company-specific, **practice-based**, implicit knowledge & skills
- Day-to-day contact with **external partners**
  - Detection of work-related environmental issues & opportunities

**Private Consumer Experiences**
- Embedded lead-user characteristics (Schweisfurth & Herstatt, 2014)
- Product Evaluations
  - Prevention of new products that do not fit **customer demand**

**Green Identity**
- **“intrinsic motivation** to protect the environment through work” (Ciocirlan 2016, p. 2)
- **Consistency** between home and work environmental behaviors
  - **Proactivity** & environmental **capabilites**
### 4.2 Distinguishing EDEI: Concepts for Innovative Behavior

<table>
<thead>
<tr>
<th>Focus</th>
<th>Product &amp; Process Innovation</th>
<th>New Firms</th>
<th>Strategic Changes</th>
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<tbody>
<tr>
<td>Phase</td>
<td>Generate</td>
<td>Develop</td>
<td>Implement</td>
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<td>Suggestion Systems</td>
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<td>Crowdsourcing</td>
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<td>Intrapreneurship</td>
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<td>EDI</td>
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( Antoncic & Hisrich, 2003; Kesting & Ulhøy, 2010; Simula et al., 2014)
4.3 Distinguishing EDEI: Concepts for Environmental Behavior

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Extra-role</th>
<th>Counter-productive</th>
<th>Environment Intention</th>
<th>At all Levels</th>
<th>Innovative</th>
<th>Market-oriented</th>
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<tbody>
<tr>
<td>EIRB</td>
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<tr>
<td>ECWB</td>
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<td>OCBE</td>
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<tr>
<td>EDEI</td>
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* EWB Environmental Workplace Behaviors
- EIRB Environmental In-role Behaviors
- ECWB Environmental Counterproductive Workplace Behaviors
- OCBE Organizational Citizenship Behaviors for the Environment

(Ciocirlan 2016; Kesting & Ulhøy, 2010)
5  Supporting Factors: Current State

“eco-innovations are **different** from other innovations in that they require a **higher degree of managerial attention and commitment**, but they are **similar** to other innovations in that they require the **same types of organizational and supervisory support**” (Ramus, 2003, p. 4)

<table>
<thead>
<tr>
<th>1) Leader Support</th>
<th>2) Innovation Climate</th>
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</thead>
<tbody>
<tr>
<td>i. Role model</td>
<td>i. Resources</td>
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<td>ii. Quick feedback</td>
<td>ii. Training &amp; Development</td>
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<tr>
<td>iii. Trust</td>
<td>iii. Rewards &amp; Recognition</td>
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<th>3) Colleague Support</th>
<th>4) Work Task</th>
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<tr>
<td>i. Networks</td>
<td>i. Autonomy</td>
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<tr>
<td>ii. Diversity</td>
<td>ii. Job description (in-/ extra-role)</td>
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(e.g. Ramus & Steger, 2000; Smith et al., 2012)
### 5.1 Supporting Factors: Green Employees & Lead Users

#### Research Gap

“this literature does not make a distinction between green employees, less green, or nongreen employees, and thus assumes that all shades of green employees behave in a similar manner.”

(Ciocirlan 2016, p. 6)

#### Characteristics

<table>
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<tr>
<th>Characteristics</th>
<th>Needs</th>
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<tbody>
<tr>
<td>Specific knowledge (Schweisfurth 2013, Ciocirlan, 2016)</td>
<td>Training &amp; development</td>
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<tr>
<td>Shape their own contexts (Sonenshein et al., 2014)</td>
<td>Autonomy</td>
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<td>Intrinsic motivation (Ciocirlan, 2016)</td>
<td>Rewards &amp; recognition</td>
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<td>In case of insufficient leadership support</td>
<td>Horizontal networks (e.g. Colleagues)</td>
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6 Summary & Contributions

Guiding Questions

Why can employee participation be particularly beneficial for eco-innovation processes and how can this potential be leveraged?

Contributions

- Why?: Various employee potentials (i.e. tacit knowledge, private consumer experiences, green identity)
- How?: Green employees & lead users hold specific requirements with respect to intra-organizational factors
## 7 Implications for Green Employees & Green HRM

### Green Employees

- **Employee participation** influences levels of **employee satisfaction**

- **Cognitive dissonance** resulting from a mismatch between employee and organizational values

### Green HRM

- **(Green) human capital** is embedded in employees and not in organizations

- Identify, retain & involve green employees in order to profit from their **expertise and proactivity**

### Benefits for the Organization

- More **diverse ideas** which correspond better to actual **customer preferences**

- Proactive employee-driven eco-innovations can generate **competitive advantages**
8  Limitations & Further Research

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<th>1) Green Employees</th>
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<tbody>
<tr>
<td>- Influence of relevant <strong>market conditions</strong></td>
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<td>- Examine differences among various industrial and cultural contexts</td>
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<th>2) Quality Standards</th>
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<td>- <strong>Suitability</strong> of employee-driven innovations</td>
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<td>- Develop qualification instruments &amp; filters</td>
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<th>3) Innovation Process</th>
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<td>- <strong>Applicability</strong> throughout various phases of the eco-innovation process</td>
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<td>- Conduct longitudinal studies to monitor benefits</td>
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References