

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
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Research Gap

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

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

Definition

“new products and processes whose **greenness** is significantly better or that impose **smaller 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 **customer segments**
- **Composition** of product characteristics
- **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 **capabilities**

4.2 Distinguishing EDEI: Concepts for Innovative Behavior

Focus	Product & Process Innovation			New Firms	Strategic Changes
	<i>Generate</i>	<i>Develop</i>	<i>Implement</i>		
Suggestion Systems	×				
Crowdsourcing	×	×			
Intrapreneurship	×	×	×	×	×
EDI	×	×	×		

(Antoncic & Hisrich, 2003; Kesting & Ulhøy, 2010; Simula et al., 2014)

4.3 Distinguishing EDEI: Concepts for Environmental Behavior

Behaviors	Extra-role	Counter-productive	Environment Intention	At all Levels	Innovative	Market-oriented
EIRB			×	×		
ECWB	×	×	×	×		
OCBE	×		×	×		
EDEI	×		(×)	×	×	×

(Ciocirlan 2016; Kesting & Ulhøy, 2010)

* **EWB Environmental Workplace Behaviors**

- EIRB Environmental In-role Behaviors
- ECWB Environmental Counterproductive Workplace Behaviors
- OCBE Organizational Citizenship Behaviors for the Environment

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)

1) Leader Support

- i. Role model
- ii. Quick feedback
- iii. Trust



2) Innovation Climate

- i. Resources
- ii. Training & Development
- iii. Rewards & Recognition



3) Colleague Support

- i. Networks
- ii. Diversity



4) Work Task

- i. Autonomy
- ii. Job description (in- / extra-role)



(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

Specific knowledge (Schweisfurth 2013, Ciocirlan, 2016)


Shape their own contexts (Sonenshein et al., 2014)


Intrinsic motivation (Ciocirlan, 2016)

In case of insufficient leadership support

Needs

Training & development 

Autonomy 

Rewards & recognition 

Horizontal networks (e.g. Colleagues) 

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

1) Green Employees

- Influence of relevant **market conditions**

- Examine differences among various industrial and cultural contexts

2) Quality Standards

- **Suitability** of employee-driven innovations

- Develop qualification instruments & filters

3) Innovation Process

- **Applicability** throughout **various phases** of the eco-innovation process

- Conduct longitudinal studies to monitor benefits

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