Customer-oriented Framework for Product-Service Systems

Danilo Marcello Schmidt
Oliver Malaschewski
Daniel Fluhr
Markus Mörtl

Institute of Product Development, Technische Universität München
Motivation

- Producer of paints and coatings on a natural base
- **Problem**: Higher prices due to more expensive ingredients
  - Costumers are not willing to pay more compared to synthetic paints

- **Solution**: Providing surface treatment

Providing the product in combination with a service reduced the costumer barrier of too high prices and increased the costumer acceptance.
Approach and Research question

• Costumer perspective of PSS
• **Target**: Increasing customer acceptance of any product or service using PSS

• Studies on costumer acceptance and PSS focus the advantages and disadvantages of PSS for the customer
• **Target**: Increasing customer acceptance of PSS
Agenda

Motivation

Literature review

Customer-oriented Framework

Working Directions

Conclusion
Literature review

- Approaches for PSS: less integration of customer view

- Approaches considering customer view: Service-focussed approaches (no consideration of product perspective)
Agenda

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Customer-oriented Framework

Working Directions

Conclusion
Customer-oriented Framework for PSS

Identifying new Customers

Increasing Customer Acceptance

Solution Layer

Customer Barriers Layer

Customer Layer

granularity

customer variety

Strategy

Product Strategy, PSS-specific goals, Quality Goals

Strategy-fitness of selected customer barriers

Identifying new Customers

Increasing Customer Acceptance

Solution Layer

Customer Barriers Layer

Customer Layer

Customer Layer
Customer Barriers Layer

- Costs/Price
  - Costs of Purchase and TCO
    - To high Costs of Purchase
    - Uncertainty of TCO
  - Transaction Costs
    - Costs of Decision
  - Usability
    - Difficulty to Understand
    - Difficulty to Use

- Complexity
  - ...
Customer Barriers

Irrationalities

Costs

Reliability and availability

Trust

Barriers of customer acceptance

Complexity

Values and Beliefs

Interoperability

Unawareness of need

Konz (2008)
Kotler (2012)

Teltow (1999)
Kittl (2009)

Kittl (2009)
Kotler (2012)

Rogers (2003)
Kittl (2009)

Kisabaka (2001)
Studt (2008)

Sickel (2010)
Kotler (2012)

Kittel (2009)
Kollmann & Stöckmann (2011)
Solution Layer

- **Service functions**
- **Processes**
- **Ressources**

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**Customer variety**

**Granularity**

- **Service**
- **Infrastructure**

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**Product functions**

- **Working principles**
- **Components**
Working Directions

Customer Layer

Customer Barriers Layer

Solution Layer

Customer variety

granularity

Product Strategy, PSS-specific goals, Quality Goals

Strategy fitness of selected customer barriers

Customer Relation Management, "one face to the customer" strategy
Working Directions

- Customer Layer
- Customer Barriers Layer
- Solution Layer

Increasing Customer Acceptance

Product Strategy, PSS-specific goals, Quality Goals
Strategy-fitness of selected customer barriers
Customer Relation Manage., "one-face-to-the-customer" - strategy

Customer variety
Granularity
Working Directions

Identifying new Customers

Solution Layer

Customer Barriers Layer

Customer Layer

Customer Variety

Strategy

Product Strategy, process-specific goals, Quality Goals

Strategy - fitness of selected customer barriers

Customer Relationship Management, "one-face-to-one-customer" strategy

Granularity
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Product Development

Technische Universität München
Conclusion

• Basic assumption of the framework: PSS can reduce the influences of customer barriers
• Beyond the customer and the PSS, strategical aspects must be considered

Outlook

• Evaluation of in an industrial case
• Focusing the dependencies between the layers (Customers → Barriers → Solution)
• Focusing strategical influences on the layers
Thank you for the attention!