Performance Indicators for Business Models

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Overview

Key Insights

• Organizations need to evaluate new or existing business models, for which they can use business model performance indicators

• Currently, organizations are still facing challenges in defining relevant indicators

• We conduct a systematic literature review to identify indicators related to business models

• We synthesize the identified indicators into a catalog

Recommendations

Industry professionals should:

• Use our catalog to define, select, and concretize performance indicators for their organization’s business models

Researchers should:

1. Empirically evaluate the catalog in different contexts and domains

2. Develop structured guidelines for using the catalog in practice

3. Investigate performance indicators related to environmental and societal performance
## Agenda

1. Introduction
2. Research Process
3. Key Results
4. Discussion and Conclusion
The business model

Key elements of a business model (BM)

- Who is the **customer** (segment)?
- What **value proposition** do we offer to the customer?
- What **capabilities** do we need to create and deliver this offering?
- What **costs and benefits** are associated with this?

Introduction

Car-sharing business model
Car manufacturing business model

Strategic positioning as a firm
Business model portfolio

Example firm: Mercedes-Benz

Key insights

- Most organizations adopt **more than one business model** aimed at different customer segments or industries.

- **Customer satisfaction** can be measured as an organizational KPI to evaluate overall business strategy and **firm performance**.

- However, organizations would want to measure customer satisfaction separately for its **distinct business models**.

- Different business models have **different performance indicators**.

Sources: Globocnik et al. (2020), Van de Ven et al. (2022)
Performance indicators for business models

**Business model example**

Freemium business model:
- Offer basic services for free
- Try to persuade customers to pay for premium version of the offering

**Most relevant elements**

- Customer segments
- Value proposition
- Capabilities
- Costs/Benefits

**Business model performance indicators**

1. Subscription fees from premium customers
2. Revenues from advertising to free customers
3. Conversion rate of free customers to premium customers
4. …
5. …
6. …

Sources: Gassmann et al. (2014), Nielsen et al. (2017), Taran et al. (2016)
Industry perspective on business model performance indicators

“Business models are never stable”

“[They] need to make a dashboard”

“Real-time monitoring”

“There is currently no control tool besides financial reports”

“Need to look at environment data”

“Alerts must notify business model owners if crucial parameters deflect. Thus, these parameters must be captured”

Challenges faced in industry related to business model performance indicators

• What kind of performance indicators can we use for our business model?

• How to identify relevant indicators, measure them correctly, and tailor them to a specific business model?

Source: Terrenghi et al. (2017)
## Research Problem and Objective

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current status</td>
<td>• Existing studies on business model performance indicators are <strong>mainly catered towards a specific domain</strong>, such as the software industry</td>
</tr>
<tr>
<td></td>
<td>• Existing repositories often lack concrete <strong>operationalizations of performance indicator</strong> (e.g., formula, question)</td>
</tr>
<tr>
<td>Knowledge gap</td>
<td>• We lack an understanding of <strong>what performance indicators are relevant</strong> to business models</td>
</tr>
<tr>
<td>Research objective</td>
<td>• <strong>Review performance indicators</strong> related to business models as mentioned or used in the academic literature</td>
</tr>
<tr>
<td></td>
<td>• <strong>Synthesize</strong> identified indicators into a <strong>catalog</strong></td>
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</table>
Research Process

Data Collection

TITLE-ABS-KEY( "business model*" AND ("performance indicator*" OR "performance measure*" OR "performance metric*" OR "KPI*" ))

Scopus, Web of Science, AISeL: N=879 papers

31 papers containing concrete business model performance indicators

Data Analysis

1st iteration

- Open coding
  - Coding indicators in each publication
  - Extracting operationalizations (e.g., formula, question)
  - Result: unstructured set of 951 performance indicators

2nd iteration

- Deductive & Inductive coding
  - Selecting dimensions for catalog
  - Iteratively categorizing indicators on dimensions
  - Merging or rephrasing indicators, adding new dimensions

3rd iteration

- Inductive coding
  - Reordering and refining catalog
  - Meeting multiple times with research team to align
  - Validating catalog through triangulation among authors

Sources: Research process according to guidelines by Okoli (2015) and Wohlin (2014)
### Catalog of BM Performance Indicators: Overview

<table>
<thead>
<tr>
<th>Business model pillars</th>
<th>Business model dimensions</th>
<th>Scope of performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frontstage</strong></td>
<td>Value proposition</td>
<td>Product and service performance, perceived customer value, and price-related performance</td>
</tr>
<tr>
<td></td>
<td>Customer relationships</td>
<td>Customer acquisition, customer satisfaction, and relationship building performance</td>
</tr>
<tr>
<td></td>
<td>Customer segments</td>
<td>Performance of different customer segments, customer characteristics and behavioral performance</td>
</tr>
<tr>
<td></td>
<td>Channels</td>
<td>Communication, distribution, and sales channel performance, including marketing and post-purchase customer support</td>
</tr>
<tr>
<td><strong>Backstage</strong></td>
<td>Key Activities</td>
<td>Development, production, and service provision performance</td>
</tr>
<tr>
<td></td>
<td>Key Resources</td>
<td>Performance related to physical assets, financial resources, intellectual resources, and human resources</td>
</tr>
<tr>
<td></td>
<td>Key Partners</td>
<td>Partner network performance related to relationships, outsourcing, and knowledge sharing</td>
</tr>
<tr>
<td><strong>Profit formula</strong></td>
<td>Revenue Streams</td>
<td>Financial performance regarding sales and recurring fees</td>
</tr>
<tr>
<td></td>
<td>Cost Structure</td>
<td>Fixed and variable costs incurred by the company to deliver the value proposition</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>Value capture performance related to margins and profits</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Market</td>
<td>Strategic positioning and shareholder-related performance</td>
</tr>
<tr>
<td></td>
<td>Environmental &amp; Social</td>
<td>Environmental sustainability performance, societal impact, and non-economic environmental or societal costs and benefits</td>
</tr>
</tbody>
</table>

Sources: Pillars and dimensions based on Osterwalder et al. (2005), Osterwalder et al. (2020), and Lüdeke-Freund et al. (2017)
## Catalog: Examples

<table>
<thead>
<tr>
<th>Business model pillars</th>
<th>Business model dimensions</th>
<th>Performance indicators</th>
<th>Operationalization</th>
</tr>
</thead>
</table>
| **Frontstage**          | Value proposition         | Product or service diversification | - Number of different products or services  
- Number of different product or service categories  
- Percentage of specific type of product or service (e.g., fresh products) in total product or service portfolio |
|                        | Value proposition         | Product or service price | - Price per unit of the product  
- Price for using the service (e.g., subscription price) |
|                        |                           |                        | ... |
| **Profit formula**      | Revenue Streams           | Sales volume or value   | - Number of products and/or services sold per time period  
- Value per product multiplied by total number of products traded per time period |
|                        | Revenue Streams           | Sales growth            | Net sales of the prior period minus net sales of the current period over net sales of the prior period |
|                        |                           |                        | ... |
Catalog: Statistics

Key insights

- **215 performance indicators** for business models are presented in the catalog.

- **Cost Structure** dimension and **Profit Formula** pillar contain most indicators.

- Only few indicators were found for the **Context** pillar, particularly for the **Environmental & Social** dimension.
Recommendations

Recommendations for practice

1. Use the catalog as source of example indicators that can be tailored to specific business models.

2. Start discussing performance indicators early on, during business model design phase, before implementation.

3. Measure and monitor indicators throughout implementation and operation, to evaluate business model performance and to timely make adaptations.

Recommendations for research

1. Comprehensiveness of catalog should be empirically validated by experts and organizations.

2. Develop structured guidelines that integrate the catalog for defining and monitoring performance indicators.

3. Focus on specifying indicators for least covered dimensions, specifically environmental and social dimensions of business models.
Conclusion

Elaboration

• We systematically reviewed the academic literature to identify performance indicators related to business models

• We developed a catalog of 215 business model performance indicators, structured by 12 dimensions and 4 pillars

• The catalog can support in defining, selecting, and concretizing performance indicators for business models

• A certain degree of subjectivity is involved in selecting publications and coding performance indicators; tried to mitigate this by involving multiple authors in process

• Catalog is not yet empirically validated; opportunity for future research
Thank you!

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References


