Business Model Innovation in Business-to-Business Markets - Procedure and Examples

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Abstract: The purpose of this paper is to develop a stage-gate process for business model innovation and to apply the process to develop generic business-to-business models. Our research is based at the “Centre of Excellence for Sales Management in Business-to-Business Markets” where we apply the grounded theory approach using case analysis, action research and focus group interviews. A literature review completes the research and gives insight on business model definitions, levels of business models and business model innovation. The main findings were that although business model innovation has gained high attention within academia and practice a stage-gate process for business model innovation including future developments and customer orientation is, similar to generic business models for business-to-business markets, missing. The paper offers a new approach for a business model innovation stage-gate process and proposes seven generic business models for business-to-business markets that will be interesting to both researchers and practitioners.

Keywords: Business model, business model innovation, business-to-business markets, stage-gate process, business model innovation stage-gate process.

1 Introduction

Business models have gained much attention in academia and practice in recent years while new business models help to differentiate from the competition and to build strong customer relationships (Lindgardt et al., 2009). We found 52 definitions for business models in academic literature with several focuses. Business model elements have also been discussed in 27 contributions. Only few authors (Osterwalder et al., 2005; and Wirtz, 2010) take business model levels into consideration. Similarly, the definition of business model innovation, including various steps for business model innovation, is still vague. Business model innovation is described in literature in several ways and considers mostly the procedure to innovate an existing or to develop a new business model on a
company level. Business models for industries have been described via case analysis while a procedure for business model innovation on an industry level is missing. In this paper, we firstly describe a procedure to innovate future and customer-oriented business models on an industry level by analysing external drivers that influence customer challenges and needs. Secondly, we apply the procedure in order to develop generic business models for business-to-business markets. Thirdly we transfer the procedure to companies enabling them to develop their business models regarding customer needs and integrating the generic industry business models on a company level.

Our paper is organized as follows. First the theoretical background containing definitions, levels and elements of business models and business model innovation. The paper then defines the research questions, research objectives and our research approach. Next we describe the procedure for business model innovation on an industry level, the application of the procedure in business-to-business markets and finally the transfer of the procedure to companies. In the contribution we describe our main findings and the advantageous practical implications for companies. Finally the description of limitations of our research defines options for further research.

2 Theoretical Background

Business Models

In table 1 business model definitions are listed and important passages marked italic. The similarities of the definitions are summarized in our proposed definition below.

Table 1 Business model definitions

<table>
<thead>
<tr>
<th>Author</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amit and Zott, 2001</td>
<td>“A business model depicts the design of transaction content, structure, and governance so as to create value through the exploitation of business opportunities.”</td>
</tr>
<tr>
<td>Hamel; 2001</td>
<td>“The four boxes in the diagram represent the major components of a business model: customer interface, core strategy, strategic resources, and value network. These basic components are linked by three ‘bridging’ components: customer benefits, configuration of activities, and company boundaries.”</td>
</tr>
<tr>
<td>Hawkins, 2002</td>
<td>&quot;In other words, a business model describes how an enterprise gears up its resources, planning capabilities and processes to the revenue producing potential of a specific product or service. By focussing in on this relationship to revenue producing potential, a new context is provided for assessing the planning and operational aspects of an enterprise, and for assessing the relationship between on-line and off-line trading environments.&quot;</td>
</tr>
<tr>
<td>Johnson et al., 2008</td>
<td>&quot;A business model, from our point of view, consists of four interlocking elements that, taken together, create and deliver value. The most important to get right, by far, is the first.&quot;</td>
</tr>
<tr>
<td>Magretta, 2002</td>
<td>&quot;Who is the customer? And what does the customer value? It also answers the fundamental question every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to the customers at an appropriate cost?&quot;</td>
</tr>
</tbody>
</table>
| Mitchell and    | "A business model is the combination of 'who', 'what', 'when', 'where', 'why',
Coles, 2004  'how', and 'how much' an organization uses to provide its goods and services and develop resources to continue its efforts."

Osterwalder and Pigneur, 2010  "A business model describes the rationale of how an organization creates, delivers, and captures value."

Pateli and Giaglis, 2004  "In other words, business models are not conceived as a purely management-related concept, but embrace a broad spectrum of organizational activities, from the operational (processes) to the strategic level. Moreover, given the evolution of networked organizations and the growing adoption of eBusiness, the definition of business models has been extended to include inter-organizational activities, roles, and elements as well."

Rappa, 2004  "A business model is a method of doing business. All business models specify what a company does to create value, how it is situated among upstream and downstream partners in the value chain, and the type of arrangement it has with its customers to generate revenue."

Weiner et al., 2010  "A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to whom, how this is done and with which financial consequences."

Within the literature mentioned above we find similar aspects that describe a business model. Based on the literature we propose the following definition of a business model for our research:

A business model is a description of how an organization combines a set of elements to create value to customers and partners. The value maintains relationships to customers, supports differentiation from competitors and is created with products and services.

Business Model Elements
Besides definitions, the discussion on elements has also taken place in the last few years. For our research we apply the following nine elements to describe our business models (see Osterwalder and Pigneur, 2010):

- Value proposition: describes products and services that create value for a customer segment.
- Customer segment: defines different groups of people or organizations a company aims to reach and serve.
- Channels: describe how a company communicates with and reaches its customer segments to deliver a products and services.
- Customer relationships: describe the types of relationships a company establishes with customers.
- Revenue streams: cash a company generates from each customer segment.
- Key resources: most important assets required to make a business model work.
- Key activities: describe the most important activities a company needs to do to make its business model work.
- Key partnerships: network of suppliers and partners that make the business model work.
- Cost structure: all costs incurred to operate a business model.

Figure 1 proposes the relationship of the nine elements, modified from Osterwalder (2004). The value created is the starting point that is communicated via channels to customers and the basis for the customer relationship that retain customers. Products and services are the basis for value created and lead to revenue from the customer. Products and services are created by activities that use resources. Resources and activities cause cost and can be provided by partners.

Within our research we add the “value logic”, in order to show, how resources and capabilities support transactions, create products, attract customers and drive value creation in a “self sustaining feedback loop” (Grasl, 2009; Eden and Ackermann, 2000). The “self sustaining feedback loop” enables turns the business model into a self sustaining engine for ongoing growth (Grasl, 2009). Other authors name the value logic “economic logic” (Magretta, 2002) or “reinforcing components” (Linder and Cantrell, 2000). Nevertheless we apply the idea of the value logic in order to describe self sustaining loops within a business model.

**Business Model Levels**

Within our research we consider industry business models and company business models. This implies that there are existing several business model levels. Only few authors discuss different levels of business models within the literature. Linder et al. define three categories which include components of business models that are not complete business models (1), real operating business models of enterprises (2) and change models that describe how an organization adapts in dynamic environment (3) (Linder and Cantrell, 2000). Here we identify aspects of constructing and changing business models.
Osterwalder et al. define three levels: level 1 containing overarching business model concepts (1), level 2 containing taxonomies with types of business models (2) and the instance level containing real world business models (3) (Osterwalder et al., 2005). They identified the focus of business models mentioned by several authors and classified business model hierarchies. Wirtz (2010) defines four levels: the industry level with an industry model, which includes external factors (1), the corporate level with a corporate business model (2), the business unit level with a business unit model (3) and the product level with the product business model (4). Wirtz defines business models in companies more detailed by including three separate levels.

On the basis of the levels discussed in literature we suggest two main levels of business models: the generic level and the specific level. The generic level is not specified for a company and separates into two sub levels. The abstract level (1) and the industry level (2). The abstract level (1) includes abstract business model types independent of an industry similar to overarching business model concepts (Osterwalder et al., 2005). The elements are flexible and included within an option space, similar to components of business models (Linder and Cantrell, 2000). Flexible means that they are changeable and not fixed. An option space includes existing options that can be chosen. It is a general description of a principle how a company is able to operate. The “Bait and Hook” business model for example is characterized by an inexpensive or free initial offer that is followed by future purchases for a related product (Osterwalder and Pigneur, 2010). The industry level (2) includes industry business model types, similar to Wirtz (2010) and the taxonomies of Osterwalder et al. (2005). The elements are flexible and also included in an option space. It is a description how a company is able to operate in an industry. Within e-business for example the advertising-based business model provides end users subsidized or free content services (Afuah and Tucci, 2003). The advantage of the generic level is that it provides ideas and options for the development of a company business model.

The specific level is valid for companies and separates into three sub levels. The corporate level (3), the business unit level (4) and the product and service level (5). The corporate level (3) includes business models for corporate businesses similar to Wirtz (2010), Linder and Cantrell (2000) and Osterwalder et al. (2005). The elements are fixed, which means that they are valid for a real corporation. The corporate level describes how a company should operate or is operating. Dell for example runs one general corporate business model. The business unit level (4) includes business models for business units similar to Wirtz (2010). Similar to the corporate level, the elements are fixed. Especially companies operating in several business fields or countries have separate business unit models. The product and service level includes business models for one product (Wirtz, 2010) or for a service as well. “Car2go” for example is a business model that offers a mobility service and is one of several business models used within the Daimler AG (car2go, 2010).
<table>
<thead>
<tr>
<th>Level</th>
<th>Name</th>
<th>Scheme</th>
<th>Characteristics</th>
</tr>
</thead>
</table>
| 1     | Abstract Level: Abstract Business Model Types | Abstract Business Model Types | • Defined independently from industries  
• Option space of elements  
• General principle how to operate |
| 2     | Industry level: Industry Business Model Types | Industry Business Model Types | • Defined for an industry  
• Option space of elements  
• Principle how to operate in an industry  
• Examples: e-business models |
| 3     | Corporate Level: Corporate Business Model | Corporate Business Model | • Defined for corporate businesses  
• Fixed elements  
• Description of corporate business operating  
• Examples: Coca-Cola, Dell |
| 4     | Business Unit Level: Business Unit Model | Business Unit Model | • Defined for business units of a corporate business  
• Fixed elements  
• Description of business unit operating |
| 5     | Product and Service Level: Product and Service Business Model | Product and Service Business Model | • Defined for a specific product or service  
• Fixed elements  
• Description of product/service operating  
• Examples: car2go |

**Figure 2 Business model levels**

Figure 2 is an extended version of Wirtz (2010) by including the abstract level and services within the product and service level in addition. It illustrates the several levels described and shows the “top-down” and “bottom-up” interactions. Top-down means that existing abstract business model types can be applied to gain input for the development of new industry business model types. Existing industry business model types can be applied to gain input for the development of new corporate business models. Bottom up means that ideas from existing corporate business models can be gained, in order to develop new industry business models. The abstraction on level 1 is very high in comparison to level 3-5, where we find a detailed description of the business model.

Based on the literature and our research we propose the following levels of business models:

*Business models can be analyzed, developed and applied for two main levels. The generic level and the specific level. The generic level is abstract and not valid for companies. It separates into two sub levels, the abstract level, which is independent from an industry (1) and the industry level, which is valid for an industry (2). The specific level that is more detailed and valid for companies. It separates into three sub levels, the corporate level (3), the business unit level (4) and the product and service level (5).*

**Business Model Innovation**

Besides the innovation in terms of technology, products, services and processes there is also existing innovation of business models. Osterwalder and Pigneur (2010) state that business model innovation is not about looking back, or looking to competitors. They also state that “business model innovation is about challenging orthodoxies to design original models that meet unsatisfied, new or hidden customer needs” (Osterwalder and
Pigneur, 2010). They focus on the fulfilment of customer needs and leaving competitors out of focus. Lindgardt et al. (2009) state that innovation turns into business model innovation when two or more elements of a business model are reinvented to deliver value in a new way. They state that the advantage of business model innovation is that it “can not be imitated as easy as product or process innovation” (Lindgardt et al., 2009). They focus on the change of elements with the target to deliver value in a new way.

Steenkamp and van der Walt (2004) state that business model innovation is the “innovation of the total business model of an organization in order to become customer focused”. They regard the innovation of the complete business model as relevant and place the customer in the centre (Steenkamp and van der Walt, 2004). Mitchel and Coles (2004) mean by business model innovation any successful change in any element that enhances an on-going performance in delivering benefits. Business model replacements that provide product or service offerings to customers and end users that were not previously available are also business model innovation (Mitchel and Coles, 2004) They also regard the process of developing these novel replacements as business model innovation (Mitchel and Coles, 2004). Chesbrough (2007) states that business model innovation is vitally important, and yet very difficult to achieve and shows opportunities and barriers. Giesen et al. (2007) illustrate three ways to innovate business models: the industry model, the revenue model and the enterprise model innovation which all contain several aspects that are innovated. They focus on the change of elements within a business model. Wirtz (2010) defined a business model design process with four phases: idea generation, feasibility study, prototyping and decision making. He integrates the environment (technological, regulatory, ecological, social, market) and the current business model into the feasibility study but customer needs are not considered (Wirtz, 2010).

Existing approaches of business model innovation describe how to innovate existing or new business models on a company level by analysing future trends in the company environment (Osterwalder and Pigneur, 2010). Some authors describe typical business models on an industry level by analysing existing business models on a company level and aggregating them (Timmers, 1998; Gordijn et al., 2001; Weill and Vitale, 2001; Faber et al., 2003; Schröter and Biege, 2009). In fact the development of business models should be based on the customer benefit (Weiner et al., 2010; Osterwalder and Pigneur, 2010) which is created by fulfilling customer needs.

Based on the literature above we propose the following definition for business model innovation:

*Business model innovation is the development of a new business model that changes an industry. Business model innovation is future and customer-oriented, considers the macro and micro environment and is valid for all business model levels. Business model innovation can be made for one or more element(s) of a business model. The target is to have knowledge on future customer needs and to satisfy them in a new way of creating value. Similar to other innovations such as product, service, process, business model innovation should be executed in a structured way.*

In our research we consider business model innovation within business-to-business markets. Therefore we define business-to-business markets in the following paragraph.
Business-to-Business Markets

In contrast to business-to-consumer markets, business-to-business markets describe relationships and activities between companies (Pepels, 1999). Needs are derived from the customers’ customer (Backhaus, 2004). The target is to align all activities to gain better market positions against competitors (Birker, 2008). Typically business-to-business markets are more strongly segmented with fewer customers for a specific product or supplier and also less suppliers (Godefroid and Pförtsch, 2008). The customer contact is direct and includes no more than one trading stage and less advertising (Godefroid and Pförtsch, 2008), while customers have a significant influence on prices (Godefroid and Pförtsch, 2008). Purchasing processes are formalized, multipersonal (Birker, 2008; Backhaus and Voeth, 2010, Godefroid and Pförtsch, 2008) and have marked interaction from customers (Backhaus and Voeth, 2004) with highly technical knowledge (Godefroid and Pförtsch, 2008). Products are typically technical and the expectations of customers on technical features of the product are high, which often necessitates special constructions (Godefroid and Pförtsch, 2008). Backhaus and Voeth (2010) have analyzed and clustered (morphological, empiric-inductive and theoretic deductive) existing approaches on typologies in industrial marketing and developed four approaches (product business, system business, asset business and supplier business). These exiting approaches describe how companies should align their industrial marketing. Nevertheless, generic business models for business-to-business markets are still lacking.

3 Research Objectives and Approach

Research Objectives and Questions

The literature mentioned above reports theories about business models and business model innovation (Osterwalder and Pigneur, 2010; Lindgardt et al., 2009; Mitchel and Coles, 2004, Chesbrough, 2007 Giesen et al., 2007) and business-to-business markets. As mentioned the literature neither provides an approach for business model innovation at an industry level nor generic business models for business-to-business markets. Therefore the objective of our research is to develop a procedure for business models at an industry level. Another objective is to apply this procedure in order to derive generic business models for business-to-business markets. Based on the literature review and the objectives described we develop the following main research questions:

- How can customer needs be derived for industries and included into customer driven industry business model innovation?
- What do generic business models in business-to-business markets look like?
- What does future and customer-driven company business model innovation look like and how can business models for an industry be integrated?
Research Approach

In our research we applied empiricism in order to build theories (grounded theory) combined with literature review. We build theory on the procedure of business model innovation at an industry level, and on business models in business-to-business markets applying the procedure. The grounded theory (Glaser and Strauss, 1967; Martin and Turner, 1986; Glaser, 1992; Baskerville and Wood-Harper, 1998) is a methodology which aims to develop theories (Kromrey, 2007). The development and foundation is made by data collection, analysis and iteration of collection and analysis in order to build theories by integrating practical, rather than abstract experience (Kromrey, 2007). The examination of practice is done via case study research, action research and focus group interviews.

Case study research (Benbasat et al., 1987; Eisenhardt, 1989; Yin, 1994; Stake, 1995) analyses interesting cases, describes them and develops empirically founded concepts (Kromrey, 2007). The case study analysis was made via desk research (homepage, brochures, press releases) for companies in business-to-business markets and structured within a data base where we analysed existing business models and classified them.

Action research and focus group interviews were embedded in workshops of the “Centre of Excellence for Sales Management in Business-to-Business Markets”.

Within action research (Rapoport, 1970; Checkland, 1991; Avison et al., 1999; Gummesson, 2000) the researcher presents a part of the object and changes this object within the research. The target is to eliminate the gap between science and research object and to integrate research activities into daily practice (Kromrey, 2007).

In a focus group interviews a group of people are asked about their opinions, beliefs and attitudes regarding a product, service, concept, advertisement, idea, or packaging (Henderson, 2009). In addition to interviewing the participants we also discuss with them, in order to gain data and insights that would be less accessible without interaction found in a group setting (Lindloff and Taylor, 2002). Six workshops were conducted from May 2010 to October 2010, where seven to ten practitioners from three companies took part in each workshop. The practitioners represented different fields of expertise (market development, strategic planning and sales management). The criteria for the selection of a company were: an international focus and being innovative regarding their business model. The duration of a workshop was 4-8 hours, and two interviewers were permanently involved. A workshop usually had the following structure: review of the results from the previous workshop, presentation and discussion of existing theoretical approaches and case studies, interviewing the focus group and designing of theoretical approaches. We developed the procedure for future and customer-oriented business models and applied this procedure to the development of business models in business-to-business markets.

To increase reliability further, after each workshop a protocol was constructed combining notes, documents and workshop results. The data formed an empirical data pattern, which in combination with case studies and literature review describes the procedure for business model innovation on an industry level and generic business models in business-to-business markets. Objectivity was ensured by the presence of three academics in each workshop and subsequent data analysis. Although integrating case studies and literature review generalizability is a challenge within this research design. Nevertheless a broad study is planned in order to test the developed business models.
4 Development of the Procedure: Industry Business Model Innovation
Stage-Gate Process (IBMI-SGP)

Cooper (2002) developed the stage-gate-process in order to optimize product development and innovation processes. We transfer the stage-gate process to business model innovation. Adapting the aims of the stage-gate process for products and innovation (Cooper, 2002) our aims for industry business model innovation are:

- to integrate future developments, customer challenges and customer needs
- to integrate a cross functional team within business model innovation
- to balance a complete, quality oriented, risk reducing and fast process within business model innovation.

The stage-gate process divides a project into 4 to 6 stages that include several parallel activities and collect information that is necessary in order to pass the next gate (Cooper, 2002). The gates are checkpoints that control whether a project should be continued or stopped. Gates have a common structure and consist of three elements: deliverables, criteria and outputs. Deliverables include what the project manager and team deliver to the decision point and are part of the output of the previous gate. Criteria are questions or metrics on which the project is judged in order to make decisions (go, kill, hold, rework). Outputs are results of the gate review which include a decision (go, kill, hold, rework), an approved action plan for the next stage and a list of deliverables for the next gate (see Cooper, 2002).

In addition to the customer needs as a starting point to generate ideas for a business models there are also other starting points such as resources (based on the existing infrastructure/partnerships), offers (based on new value propositions) and finances (based on new revenue streams, pricing mechanisms, reduced cost structures) Osterwalder et al., 2010). We choose future customer needs as a starting point in order to put the customer at the centre and thereafter derive all other elements of the business model. Osterwalder and Pigneur (2010) apply four dimensions for business model generation: key trends, market forces, industry forces and macroeconomic forces in order to describe the business model environment and also applies future scenarios.

For our research we apply the following stage-gate process for the development of industry business model innovation based on future customer needs. The next paragraph explains the stages and gates in detail.
Initiation: Customer Need Derivation in Industry

Firstly, actual and future drivers based on the six dimensions: political, economical, social, technological, environmental and legal (Worthington and Britton, 2009) have to be analyzed. These drivers are generally valid and initially derived in a brainstorming, checked and approved within the literature and completed with their description and value. We name these drivers the macro environment of a business model. Secondly, an industry has to be chosen in order to derive current and future forces driving industry competition: potential new entrants, buyers bargaining power, substitute products or services, suppliers bargaining power and rivalry among existing firms (see Porter, 1980). It is important to derive the five forces from the customers’ point of view. So the question is: which are the five forces regarding the customers’ industry? We name these the micro environment of a business model and also include customers, partners and stakeholders. The drivers and five forces are the basis to derive future customers’ challenges and needs. Customer needs are the basis for the focus of a business model: the value proposition. Fulfilling customer needs means customer centric business model design (Osterwalder and Pigneur, 2010). Figure 4 shows the macro and micro environment that is a basis for deriving customer challenges and needs.

Figure 3 Industry business model innovation stage-gate process
We propose the following definition for business model environment:

*The business model environment separates into the macro and micro environment. The macro environment identifies future drivers in the following dimensions: political, economic, social, technological, environmental and legal. The micro environment identifies the following market forces from a customers’ perspective: bargaining power of suppliers, threat from substitutes, rivalry among competitors, bargaining power of buyers and threat from potential entrants. The customers, partners and stakeholders are also part of the micro environment. The macro and micro environment influence customer challenges and needs that is a basis for the development of a business model.*

**Gate 1: Customer Need Review**

All deliverables, criteria and output of the gate are described in a table.

**Table 2 Deliverables, criteria and output gate 1**

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Criteria</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future customer needs in the defined industry derived from drivers and industry forces.</td>
<td>Are the customer needs well derived from drivers and industry forces?</td>
<td>Decisions: rework customer needs that are not well derived; kill customer needs that are not relevant or not attractive to customers; integrate customer needs in stage 1.</td>
</tr>
<tr>
<td>Are the future customer needs to customers?</td>
<td>How relevant are the future customer needs to customers?</td>
<td>Action plan: see actions described in stage 1.</td>
</tr>
<tr>
<td>How attractive are the customer needs for a business model within the industry?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4 Business model environment*
Stage 1: Customer Need Focus Development

Within the first stage similar customer needs are clustered in order to reduce complexity. These clusters are described in detail and tension pairs that occur from customer needs clusters are derived. Tension pairs represent customer needs on the one side and the challenge that occurs for a business model on the other side. One example is “environmental friendliness” as a customer needs cluster and “cost for providing environmental friendliness” as a challenge for a business model. Next, the focus of the tension pair has to be derived in order to dissolve it with the proper business model. The derived focuses are the basis for business model visions.

Gate 2: Customer Need Focus Review

Table 3 Deliverables, criteria and output gate 2

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Criteria</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer need focuses in the defined industry derived from customer need clusters and tension pairs.</td>
<td>Are the customer need focuses well derived from customer need clusters and tension pairs?</td>
<td>Decisions: rework customer need focuses that are not well derived, kill customer need focuses that are not relevant or not attractive to customers, integrate customer need focuses in stage 2.</td>
</tr>
<tr>
<td></td>
<td>How relevant are the customer need focuses to customers?</td>
<td>Action plan: see actions described in stage 2.</td>
</tr>
<tr>
<td></td>
<td>How attractive are the customer need focuses for a business model within the industry?</td>
<td>Deliverables gate 3: business model vision with reason, intention, and sustainability.</td>
</tr>
</tbody>
</table>

Stage 2: Industry Business Model Vision Development

Within the second stage the customer need focuses are integrated within a business model vision. The business model vision contains the:

- Reason: what is the reason for the business model to exist?
- Intention: what is the main focus of the business model?
- Sustainability: what is the lifetime of the business model? Why is the business model differentiating from competitors? Why are customers willing to pay for products and services? What are risks of the business model?
Gate 3: Industry Business Model Vision Review

Table 4 Deliverables, criteria and output gate 3

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Industry business model visions including reason, intention, and sustainability.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Are all customer need focuses covered within the industry business model visions?</td>
</tr>
<tr>
<td></td>
<td>Are the industry business model visions well described, complete, and logical?</td>
</tr>
<tr>
<td>Output</td>
<td>Decisions: Rework industry business model visions by including customer need focuses; integrate industry business model visions in stage 3</td>
</tr>
<tr>
<td></td>
<td>Action plan: see actions described in stage 3.</td>
</tr>
<tr>
<td></td>
<td>Deliverables gate 4: industry business model with elements.</td>
</tr>
</tbody>
</table>

Stage 3: Industry Business Model Development

Within the third stage business models and their elements are developed on the basis of industry business model visions. Therefore, the business model literature is reviewed in order to gain ideas for the industry business models. Second, cases of existing business models are analyzed and described. It is important to analyze business models independently from the industry in order to gain new ideas. The ideas obtained from literature and cases are the basis for discussions in order to develop elements for each industry business model. Besides the description of the elements the value logic of the business model is also described.

Industry Business Model Review

Table 5 Deliverables, criteria and output industry business model review

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Industry business model with elements and value logic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Are all industry business model elements well described, complete and do they fit?</td>
</tr>
<tr>
<td></td>
<td>How new and attractive is the business model to the industry?</td>
</tr>
<tr>
<td></td>
<td>Is the value logic complete?</td>
</tr>
<tr>
<td>Output</td>
<td>Decisions: Rework industry business models.</td>
</tr>
</tbody>
</table>

The stage-gate process introduced enables to derive industry business models that can be integrated into the development of company business models. The criteria are defined as questions and measured in a scale. In the next chapter we will describe how we applied the developed process.
5 Application of the procedure: Business Models for Business-to-Business Markets

After describing the industry business model innovation stage-gate process (IBMI-SGP) we apply the process in order to develop a business model for business-to-business markets.

In the following table we give examples for each stage illustrated.

**Table 6 Examples for content**

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>PESTEL driver</td>
<td>More new and strict laws regarding the protection of environment</td>
</tr>
<tr>
<td>Market force</td>
<td>Fewer possibilities to differentiate among competitors</td>
</tr>
<tr>
<td>Customer need</td>
<td>Think and act environmentally friendly way in order to comply with stricter legal requirements and differentiate against competitors</td>
</tr>
<tr>
<td>Customer need cluster</td>
<td>Environmental friendliness</td>
</tr>
<tr>
<td>Tension pair</td>
<td>Environmental friendliness vs. cost for providing environmental friendliness</td>
</tr>
<tr>
<td>Focus</td>
<td>Sustainability</td>
</tr>
<tr>
<td>Business model vision</td>
<td>• Reason: Corporate social responsibility is gaining higher attention, more strict environmental laws, higher need for environmentally friendly products, lower availability of resources and higher prices for energy.</td>
</tr>
<tr>
<td></td>
<td>• Intention: The focus of the business model is to support customers with services to act sustainably, upholding their code of conduct and behaving according to compliance requirements. Customers are able to position themselves as a sustainable company.</td>
</tr>
<tr>
<td></td>
<td>• Sustainability: the life cycle of the business model is long because the importance of corporate social responsibility is rising. A differentiation is possible because some competitors do not concentrate on providing customers with the services described. Customer are willing to pay for services due to a higher importance of corporate social responsibility, stricter laws, cost for resources and the opportunity to position as a sustainable company. Higher effort, high expenses and the fact that competitors may have an advantage by not acting sustainably pose the risks of the business model.</td>
</tr>
<tr>
<td>Business model from literature</td>
<td>“Global Sourcer” business model, which identifies new products for customers, sources products, does the product policy and provides logistics (Zentes et al., 2007).</td>
</tr>
<tr>
<td>Business model from case</td>
<td>“car2go” business model, where customer can rent a “smart” (a small car for two persons) by the minute with or without reservation supported with GPS and RFID tags (car2go, 2010).</td>
</tr>
</tbody>
</table>
By applying the industry business model stage-gate process we developed the following seven generic business models for business-to-business markets:

- “Market Provider”, which provides market access in development, sourcing, production and sales; example: “German Centres” of three regional state lenders provide offices, legal advice, contacts etc. (German Centre, 2010).
- “Finance Provider”, which provides loans, leasing opportunities and subsidies; example: “Trumpf” provides advice for customers to access subsidies or “Rolls-Royce” provides pay per hour for airplane engines (Trumpf, 2010 and Rolls-Royce, 2010).
- “Sustainability Provider”, which provides products and services that enable customers to act in a sustainable way, uphold their code of conduct and behave according to compliance requirements; example: “Better Place” provides a network for renting automobile batteries (Better Place, 2010).
- “System Provider”, which provides a modular system in order to fulfil individual needs; example: “Azo” provides modular food machines that are easy to clean and quick to install (Azo, 2010).
- “Service Provider”, which provides product-related services along the complete value chain; example: “Implenia” provides services before, while and after the construction of a building and coordinates partners (Implenia, 2010).
- “People Provider”, which provides qualified personnel, trainings and know-how; example: consultancies provide customers know-how for several topics.
- “Network Provider”, which provides access to a network in order to gain contacts and information; example: “Trumpf” provides a platform to customers in order to buy/sell used machinery (Trumpf, 2010).

The seven industry business models are derived from the tension pairs. They represent generic business models which can be applied by consulting companies. For production and trading companies in business-to-business markets these aspects mostly represent an add-on for services.

An example for an industry business model described is shown in figure 5. The framework is based on Osterwalder and Pigneur (2010).
Figure 5 “Market Provider” business model

Figure 6 shows the value logic of the market provider. The interpretation is: the more services are provided to customers, the better and more market success the customers gain. This has an influence on products sold (1), risk reduction for customers and the market provider (2) and on the information base of the market provider (3). A better information base influences the ability to provide more and better services and a multiple use supports cost reduction.

![Figure 6 Value logic of the “Market Provider”](image-url)
Besides the description of the nine elements we have also developed and described the elements in detail.

**Company Business Model Innovation Stage-Gate process**

As mentioned before the industry business model innovation stage-gate process (IBMI-SGP) can be adjusted to companies in order to develop a company business model innovation stage-gate process (CBMI-SGP). Also the generic industry business models can be applied in order to gain input. The stages are:

- **Stage 1 - Business model innovation audit:** Analyze current capability of innovation (financial resources, qualified personnel. Partners.
- **Stage 2 - Customer needs derivation:** Integrate analyzed drivers (PESTEL), Integrate and check derive forces; Integrate and check challenges and needs.
- **Stage 3 - Business model analysis:** Analyze current business model with elements; Derive gaps within business model.
- **Stage 4 - Business model development:** Integrate ideas from industry business models; Develop business model elements.
- **Stage 5 - Business model test and validation:** Launch business model in test market; Validate business model.
- **Stage 6 - Business model launch:** Launch business model.

Similar to the industry business model stage gate process the results of the stages are reviewed within the gates. For further research we suggest to also integrate quantitative data (net present value, net working capital) and a risk and opportunity model in order to evaluate new business model more precisely.

**6 Contributions**

With our approach we close existing gaps of the current research on business model innovation and business models in business-to-business markets. We provide an industry business model innovation stage-gate process that has been described in detail and applied in order to gain generic business models for business-to-business markets. The process has also been adjusted for companies in order to innovate business models. Furthermore, we contribute to the current understanding of business models, business model levels and business model innovation.

**7 Practical Implications**

Managers and business developers from business-to-business companies will benefit from the findings by having a set of seven generic business models which are future and customer oriented. These generic business models enable companies to gain new ideas and adjust their existing business model or to develop new business models. Managers from other industries are able to apply the proven procedure in order to develop generic business models for their industry. By aligning their own business model to customer
needs, companies are enabled to differentiate themselves more from competition and thus build stronger relationships with customers.

8 Limitations
This paper reports the results of our research within the “Centre of Excellence for Sales Management in Business-to-Business Markets”. Although we applied several research methods in order to practice triangulation the research design challenges generalizability. Therefore a broad study is planned in order to make our results generalizable.

9 Further Researches
Several issues await further research. Firstly a broad study in order to analyze the current procedure of companies on business model innovation and existing business models in business-to-business markets. Secondly, the detailed development of the company business model innovation stage-gate process including financial and risk/opportunity issues. Thirdly, the development of a procedure in order to derive processes for the business models developed.

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