An Innovative Business Model: The Sustainability Provider

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Abstract: The purpose of this paper is to derive a generic business model for sustainability and to describe all elements of the business model. The generic business model in sustainability provides companies ideas for their own business model. Our research is based at the “Centre of Excellence for Sales Management in Business-to-Business Markets” where we apply case analysis, action research and focus group interviews. A literature review completes the research and gives insight on business models, the Industry Business Model Innovation Stage-Gate Process and sustainability. The main findings were that there are existing business models containing sustainability partly as an add-on or completely as a consulting service. Nevertheless a generic business model on sustainability is missing. The paper offers such a business model and is based on cases, future developments and customer needs. The paper also offers ideas for the description and visualization of business models in general. The generic business model for sustainability offers ideas to both researchers and practitioners.

Keywords: Sustainability, Sustainability Provider, Business Model, Business Model Innovation, Business Model Innovation Stage-Gate Process.

1 Introduction

Higher transparency concerning products and services forces companies to differentiate from competitors. One possibility to differentiate oneself and to build strong customer relationships is the innovation of business models considering future developments and a customer centric view (Lindgardt et al., 2009). Recent developments show stricter legal requirements on environmental issues (1), higher information transparency regarding environmental and social issues (2), higher prices for resources (3) and a greater awareness of customers regarding environmental and social issues (4). These developments force companies and their customers to act in a sustainable way. Especially in business-to-business markets, sustainability has gained attention. The current options
companies have in terms of sustainability range from complete sustainability orientation (1), to sustainability as an add-on (2) or sustainability as a consulting service (3). Nevertheless a generic business model on sustainability in Business-to-Business-Markets is missing. In this paper, we apply the formerly introduced Industry Business Model Innovation Stage-Gate Process (Schallmo and Brecht, 2010) in order to develop an innovative business mode we call: the “Sustainability Provider”. This generic business model enables companies to integrate ideas into their own business model.

Our paper is organized as follows. The first part describes the theoretical background containing sustainability, business models and their elements, business model levels, business model environment and business model innovation. Second, we define the research questions, research objectives and our research approach which is embedded in at “Centre of Excellence for Sales Management in Business-to-Business Markets”. Next, we describe cases of companies that support customers acting in a sustainable way. Then we apply the Industry Business Model Innovation Stage-Gate Process, derive a business model which is based on future developments (PESTEL drivers; five forces), future customer challenges and future customer needs and the cases. The business model is explained in detail with its elements. In the contribution section we present our main findings and the practical implications for companies. The analysis of limitations of our study defines ideas for further research.

2 Theoretical Background

In this section we will describe the theoretical background which is mainly based on our previous research.

Sustainability can be regarded from a strategic (Werbach, 2009) or from a management point of view (Crane and Matten, 2010), applies tools (Hitchcock and Willard, 2009) and can also be measured (Epstein, 2008). For our research we concentrate on the following definitions for sustainability. In 2005 the UN declared that “sustainable development in its economic, social and environmental aspects constitutes a key element of the overarching framework of United Nations activities” (United Nations, 2005; see also EU, 2011). In 2006 the International Union for Conservation of Nature (IUCN) presented three concepts of sustainable development (IUCN, 2006):

- Three pillars of sustainable development: economic growth (1), environmental protection (2) and social progress (3) (e.g. Union of the German Association of the Automotive Industry).
- Concentric cycles: economy (1), society (2) and environment (3) (e.g. Sustainable Campus of the Cornell University, Ithaca).
- Overlapping cycles: economic (1), social (2) and environmental (3) that needs to be balanced (e.g. IUCN).

In this study we regard sustainability as a balance between economic growth (1), environmental protection (2) and social progress (3). The objective of our generic business model is to transfer the internal concentration on sustainability to customers.

Within the literature we found several definitions for a business model (see e.g. Amit and Zott, 2001, Hamel, 2001, Hawkins, 2002, Johnson et al., 2008, Magretta, 2002, Mitchell and Coles, 2004, Osterwalder and Pigneur, 2010, Weiner et al., 2010) and have derived the following definition (Schallmo and Brecht, 2010): “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.”

In order to describe a business model we apply the following nine elements (see Osterwalder and Pigneur, 2010): value proposition (1), customer segment (2), channels (3), customer relationships (4), revenue streams (5), resources (6), activities (7), partnerships (8) and cost structure (9).

Considering different levels of business models (see Linder and Cantrell, 2000, Osterwalder et al., 2005, Wirtz, 2010), we have developed the following definition (Schallmo and Brecht, 2010): “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 a specific industry (2). The specific level is more detailed and valid for single companies. It separates into three sub levels, the corporate level (3), the business unit level (4) and the product and service level (5).” Within this paper we introduce examples of the specific level and develop a business model for the generic level which provides ideas for company business models.

Similar to the environment of companies it is necessary to consider the environment of business models. We therefore apply the PESTEL drivers (Worthington and Britton, 2009) and the industry forces (Porter, 1980) and the following definition (Schallmo and Brecht, 2010): “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 customer’s 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 form the basis for the development of a business model.”

Considering the innovation of business models (Osterwalder and Pigneur, 2010, Lindgardt et al., 2009, Steenkamp and van der Walt, 2004, Mitchel and Coles, 2004 Cheshbrough, 2007, Giesen et al., 2007, Wirtz, 2010) we have developed the following definition (Schallmo and Brecht, 2010): 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 applied to one or more element(s) of a business model. The target is to gain 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. Within this research we will apply the Industry Business Model Innovation Stage-Gate Process in order to deduct an innovative business model for sustainability.
3 Research Objectives and Approach

Research Objectives and Questions
As mentioned before there is no generic business model on sustainability for business-to-business markets. Therefore, the objective of our research is to develop such a business model by applying the Industry Business Model Innovation Stage-Gate Process. This generic business model on sustainability enables companies to gain ideas for their own business model.

Based on the research objective we conduct the following main research questions:

- What company business models for sustainability exist?
- What are the characteristics of a generic business model for sustainability?
- Which products and services should be offered in order to create value to customers?
- How is the relationship to customers maintained and which channels are relevant?
- Which resources, activities and partners are necessary in order to create products and services?
- How will the revenue and cost structure of a sustainable business model develop?

Research Approach
In our study we apply case study research, action research and focus group interviews. The development and foundation of the generic business model is set by iterative data collection and analysis in order to integrate practical, rather than abstract experience (Kromrey, 2007). Case study research (Benbasat et al., 1987; Eisenhardt, 1989; Yin, 1994; Stake, 1995; Kromrey, 2007), action research (Rapoport, 1970; Checkland, 1991; Avison et al., 1999; Gummesson, 2000; Kromrey, 2007) and focus group interviews (Henderson, 2009; Lindloff and Taylor, 2002) enable the integration of practical aspects. Nine workshops were held within the “Centre of Excellence for Sales Management in Business-to-Business Markets” with seven to ten practitioners from three different companies with different fields of expertise. The duration of a workshop was 4-8 hours, and two academics were permanently involved. The “Sustainability Provider” was developed during the first seven Workshops.

In order to reach a high validity of the results (Denzin, 1970) we applied triangulation in two ways. Firstly, we combined different existing approaches in order to utilize existing advantages (Denzin, 1970). Secondly, we applied one single method in several ways, which provides data from several sources. Reliability of our research is ensured by documenting the research project in a protocol with notes, documents and workshop results. The data gained form an empirical data pattern in combination with case studies are the basis for the developed generic model. Objectivity is ensured by the presence of at least two academics in each workshop and subsequent data analysis.
4 Examples for Business Models on Sustainability

In this section we will describe examples for business models on sustainability in order to gain ideas for our generic business model. The main focus lays on the products and services that are delivered. Within business models on a company level we identified two groups: first, consulting companies whose main business activities focus on providing sustainability services and second, companies that provide sustainability as an add-on to their usual business activity.

**PE International (consulting company)**

The first example is PE International which focuses on services and software solutions in the field of sustainability (PE, 2011). The services include implementing management systems, developing sustainability indicators, life cycle assessment, carbon footprint, design for environment and environmental product declarations, technology benchmarking, eco-efficiency analysis, emissions management, clean development mechanism projects and strategic corporate social responsibility consulting (PE, 2011). The software solutions include the “GaBi” software for product sustainability and the “SoFi” software for corporate sustainability (PE, 2011). In the following section we will describe the main areas of activities in more detail (source: PE, 2011).

**Product sustainability** includes products and processes and is rooted in performing life cycle assessments (LCA) in order to quantify the environmental effects. The services include: design for environment and ecodesign (1), data on demand and databases (2), energy using products directive and ecodesign (3), environmental product declarations (4), life cycle assessment and process chain analysis (5), product carbon footprint (6), resource and energy efficiency (7) and water footprint (8).

**Corporate sustainability** adds value to the environment and society at large. Solutions are provided for carbon and energy management (1), corporate carbon footprints (3), corporate social responsibility and sustainability strategies (4), environmental management (5), sustainability reporting (6) and sustainable supply chains (7).

The **carbon footprint** supports determination, analysis, reduction and offset of both product carbon footprints and corporate carbon footprints. The carbon footprint includes: carbon disclosure project (1), carbon management (2), corporate carbon footprint (3), clean development mechanism projects (4), product carbon footprint (5) and a carbon calculator.

Similar to the carbon footprint the **water footprint** supports the product analysis or corporate water footprint. The service includes the analysis of processes and activities that influence a company’s water consumption and its supply chain. Based on the analysis a list of indicators is derived in order to reduce risks and prevent cost increases. **Green IT** includes the study and practice of using computing resources efficiently. The target is to identify and qualify a set of ambitious measures focusing on what can be achieved for the complete life cycle.

**Green building** covers the construction and management of buildings in an economic way that prevents environmental charges and saves resources. Green Building includes environmental product declarations (1), certification of buildings (2) and building life cycle assessment.
Within the sustainable supply chain key risks and opportunities in the supply chain of a customer are identified. The sustainable supply chain also includes suppliers and develops key performance indicators.

The first example illustrates the variety of possibilities for providing sustainability. We see that PE International focuses on different objects that can be analyzed and optimized (products, processes, IT, buildings, and company). The services for these objects include assessments, measures for optimization, declarations, and benchmarks and are supported by the described software.

**ClimatePartner (consulting company)**

ClimatePartner is a developer and strategy consultant in the field of climate protection and the support of customers to integrate climate protection within the strategy and processes of the company (ClimatePartner, 2011). The focus is on energy efficiency, which covers the economic and considerate handling of resources by avoiding and reducing CO2-emissions and compensating CO2-emissions that are not avoidable (ClimatePartner, 2011). ClimatePartner structures its activities within several phases which we will explain in more detail in the following paragraph (ClimatePartner, 2011).

Within the evaluation phase a pre-check is conducted in order to analyze if a detailed check pays off and to find out the main potentials. Furthermore the pre-check is valid to service companies with no production.

Within the check phase energy saving potentials are identified in detail and accomplished with options for actions. The check includes: on-site analysis (1), energy analysis (2), interviews on energy purchase and processes (3), detailed data analysis (4), options for actions (5), amortization calculation (6), carbon footprint (7) and recommendation on environmental protection (8).

Besides analyzing and identifying actions and recommending solutions for environmental protection the realization of technical solutions is also necessary. The phase includes: providing competencies for the realization of energy saving actions (1), sourcing and supplying of necessary products (2) and coordination of workers (3).

The contracting includes the possibility to finance investment for energy saving measures. The loan is paid back monthly (partly by the cost savings resulting from the measures) within an individually agreed duration.

In order to build internal competencies on energy efficiency and to ensure integration within the company, trainings are provided to responsible employees.

The continuous improvement includes the yearly check of the energy situation and the actions.

The second example focuses on energy efficiency and illustrates several phases. The services are completed with trainings and options to finance the efforts on sustainability.

Other examples for business models for sustainability (consulting companies) are “lean and green” with the focus on lowering energy cost (lean and green, 2011) and “Stenum” with the focus on preventive environmental protection, resource and energy optimization, management systems and communication for environment and sustainability (Stenum, 2011).
Regarding examples of companies that provide sustainability as an add-on to their conventional business activity, we found the following examples:

- The logistic company “Honold” trains its truck drivers on energy saving behaviours and offers this service also to customers (Honold, 2011).
- The energy company “eprimo” offers their customers alternative energy sourced from water power (eprimo, 2011).
- “Better place” develops batteries for cars and provides a net for electric service stations (better place, 2011).
- “Mercedes Benz” offers “Blue Tec” in trucks for a low fuel consumption and low emission (Mercedes Benz, 2011).

The examples above illustrate that sustainability is provided as an add-on to the conventional business. The objective of our research is to develop a generic business model, the “Sustainability Provider”, in order to offer companies ideas for their own business model.

5 Development of the “Sustainability Provider” by applying the Industry Business Model Innovation Stage-Gate Process (IBMI-SGP)

*Industry Business Model Innovation Stage-Gate Process*

As mentioned we apply the Industry Business Model Innovation Stage-Gate Process to the development of a generic business model for sustainability. The Industry Business Model Innovation Stage-Gate Process is based on Cooper’s Stage-Gate Process for product development and innovation (Cooper, 2002).

The Industry Business Model Innovation Stage-Gate Process is based on customer needs and consists of the initiation and three further stages (Schallmo and Brecht, 2010). The following figure illustrates the stages and gates with their content.

![Figure 1 Industry Business Model Innovation Stage-Gate Process (Schallmo and Brecht, 2010)](image-url)
We will now show how we applied the steps in order to develop the business model “Sustainability Provider” and focus on the content of the stages. For a detailed explanation of the Industry Business Model Innovation Stage-Gate Process see Schallmo and Brecht (2010).

**Initiation: Customer Need Derivation in Industry**

Based on the PESTEL drivers (Worthington and Britton, 2009) we analyzed the macro environment of a business model (Schallmo and Brecht, 2010). Usually this macro environment analysis is also completed with the analysis of the micro environment which contains future forces driving industry competition (Porter, 1980) from a customer’s point of view (Schallmo and Brecht, 2010). The drivers and five forces are the basis to derive future customers’ challenges and needs to develop the focus of a business model: the value proposition (Schallmo and Brecht, 2010). Example (Schallmo and Brecht, 2010):

<table>
<thead>
<tr>
<th>PESTEL driver</th>
<th>Market force</th>
<th>Customer need</th>
</tr>
</thead>
<tbody>
<tr>
<td>New and stricter laws</td>
<td>Fewer possibilities to differentiate among competitors</td>
<td>Think and act environmentally friendly in order to comply with stricter legal requirements and differentiate against competitors</td>
</tr>
<tr>
<td>regarding the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>protection of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similar to the example described we have derived additional PESTEL drivers, market forces and customer needs that are the basis for the next stage.

**Stage 1: Customer Need Focus Development**

In the first stage we integrate similar customer needs and form clusters (Schallmo and Brecht, 2010). The clusters are described in detail and are the basis for tension pairs that represent customer needs on the one side and the challenges for a company on the other side (Schallmo and Brecht, 2010).

<table>
<thead>
<tr>
<th>Customer need cluster Description of the cluster</th>
<th>Environmental friendliness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Increase in environmental regulations, rising energy prices and a low availability of resources force companies to act environmentally friendly and save energy.</td>
</tr>
<tr>
<td></td>
<td>• Increasing demand of alternative energy</td>
</tr>
<tr>
<td></td>
<td>• Use of energy saving production machines</td>
</tr>
<tr>
<td></td>
<td>• Environmentally friendly transportation</td>
</tr>
<tr>
<td></td>
<td>• Sourcing of recyclable products/raw materials</td>
</tr>
<tr>
<td></td>
<td>• Integration of recyclability of products within the product development</td>
</tr>
<tr>
<td></td>
<td>• Reduced waste</td>
</tr>
</tbody>
</table>
Less hazardous materials

Tension pair

On the one hand, companies have to adhere to the restrictions on environmental friendliness (that may incur costs) and on the other hand customers have to be supported to keep the cost low.

Customer need focus

The customer need focus of the business model is “sustainability”. So business models of the future support their customers in fulfilling environmental laws, saving energy cost and to position themselves as an environmentally friendly company. The target is to act environmentally friendly along the complete value chain and to exploit all environmental potentials.

Similar to the customer need focus “sustainability” within a business model we have derived the following additional focuses: “market access”, “financial support”, “product as a system”, “services for a system”, “access to personnel” and “access to a network” (see Schallmo and Brecht, 2010). These customer need focuses are the basis for the business model vision.

Stage 2: Industry Business Model Vision Development

In the second stage the customer need focuses are integrated in a business model vision (see Schallmo and Brecht, 2010) which includes 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 the risks of the business model?

By applying the business model vision for the “Sustainability Provider” we gain the following results (Schallmo and Brecht, 2010):

- Reason: Corporate social responsibility is increasingly gaining attention, more strict environmental laws, higher need for environmentally friendly products, lower availability of resources and higher prices for energy.
- Intention: The focus of the business model is to support customers with services to act sustainably, upholding their code of conduct and behaviour according to compliance requirements. Customers are able to position themselves as a sustainable companies.
- 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 themselves as sustainable company. Greater efforts, high expenses and the fact that
competitors may have an advantage by not acting sustainably pose the risks of the business model.

**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 and supplemented by the cases of existing business models (Schallmo and Brecht, 2010) which have been illustrated in the previous paragraph.

**Overview**

In order to give an overview of the business model the next figure shows a summary of the elements (based on Osterwalder et al., 2010) of the Sustainability Provider.

<table>
<thead>
<tr>
<th>Partners</th>
<th>Activities</th>
<th>Value Proposition</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks, energy providers, subsidy providers, logistical companies, networks, certification institutes, government, university, suppliers.</td>
<td>Gain and document know-how on subsidies, legal aspects, development, realization and production; search partners, search and train personnel.</td>
<td>The focus is the support of customers regarding sustainability, uphold their code of conduct and behave according to compliance requirements.</td>
<td>Customer relationships are maintained personally, via phone and mail.</td>
<td>The business model type targets customers that want or have to act sustainable and are able to position themselves as sustainable companies.</td>
</tr>
<tr>
<td>Resources</td>
<td>Products and services are:  • Information, consulting and trainings on sustainability, subsidies, legal aspects.  • Environmentally friendly and recyclable products and machinery  • Environmentally friendly energy</td>
<td>Customers are able to position themselves as a sustainable company.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer segments can be formed by regions/branches because there are existing different requirements, different energy prices and different value systems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Channels</td>
<td>Channels are personal sales, events, associations, a service hotline, the internet, print media, trainings and a platform.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost Structure</td>
<td>Revenue Streams</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost arise mainly from the establishment of know-how, research and development, personnel. By fulfilling requirements cost also arise but fines for not fulfilling requirements do not have to be paid.</td>
<td>Revenue is generated mainly from commissions, training and consulting fees and recycled spare parts/machinery.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2 Summary of the Sustainability Provider**

The business model is developed as a generic business model and therefore we do not consider customer segments.

**Products, services and value proposition**

The following figure illustrates possibilities for products and services of the Sustainability Provider along the life cycle of a machine. The value generated to customers is provided with the products and services. The analysis of other life cycles (e.g. buildings, IT) can support the development of additional products and services.
The Sustainability Provider offers customers consulting services regarding subsidies and sustainability, environmental friendliness, corporate social responsibility and legal aspects. Customers get access to alternative energy and have the possibility to dispose their machines. They also get access to information on life cycle cost, legal aspects, energy consumption and subsidy programs. Customers obtain environmentally friendly, energy saving and recyclable machines that have reduced defective goods and are transported environmentally friendly and are supplied environmentally friendly and recyclable products and raw materials. Customers also have the possibility to be trained on environmental friendliness, sustainability and corporate social responsibility.

Based on the introduced products and services the Sustainability Provider creates the following value proposition: customer support regarding sustainability, their code of conduct and behave according to compliance requirements. This enables customers also to position themselves as sustainable companies.

**Channels and Customer Relationship**

Communication on the value proposition, products and services of the Sustainability Provider is personal, via events (trade fairs, conferences), associations, a service hotline, the internet and print media. The target is to inform existing and potential customers about the advantages of the Sustainability Provider. After communicating the advantages of the products and services sales is conducted via a portal which includes information on sustainability. Sales is also conducted via on-site consulting services and training in order to enable customers and their employees to act in a sustainable way. Customer relationship is maintained personally, via phone, and email.
Resources

The following figure shows the connection between products and services, the value proposition and the necessary resources. The idea of the illustration of the connections is based on the core competencies and roots of competitiveness by Prahalad and Hamel (1990). Based on the value proposition and the products and services we now deduct the necessary resources in order to be able to provide the products and services. The three deducted resources have to be amended by additional ones.

![Diagram showing connections between value proposition, products and services, and resources](image)

**Figure 4** Connection between value proposition, products and services and resources

*Information and know-how* on subsidies, legal aspects, development, realization and production is necessary for consulting services, information and customer trainings. Know-how is applied to produce energy saving and recyclable machines. *Contact to partners* is necessary to accomplish own resources and activities in order to provide products and services (see also partners). *Qualified employees* are necessary in order to conduct trainings and develop energy saving machines.

Activities

Similar to the resources we have to deduct the appropriate activities in order to provide products and services. The first activity is to *build and document information and know-how* on subsidies, legal aspects, development, realization and production. This information is integrated within a portal and provided to customers. The second activity is to *search relevant partners* and build/maintain relationships in order to be able to provide products and services. And the third activity is to *search and train adequate personnel*. 
**Partners**

Since sometimes not all resources are available and not all activities can be carried out, relevant partners can support the Sustainability Provider. **Banks** support in financing and leasing of machinery. **Energy providers** supply alternative energy (wind, water, solar) and a frame contract provides favourable conditions in order to give customers a price advantage. **Providers for subsidies** give access to subsidies and low interest loans for sustainable machines and products. **Customers** supply the Sustainability Provider with used machines and spare parts that are remanufactured.

The following figure shows the partners and their contributions to the business model of the Sustainability Provider.

![Diagram of partners](Image)

**Figure 5 Partners of the Sustainability Provider**

**Logistic companies** support the environmentally friendly storage/transport. **Networks** support the retrieval of information on sustainability and the representation on these networks enables to integrate own interests. **Norming institutes** provide information on standards for own developments and for the information of customers. The **government** also provides information on standards and access to subsidies. **Universities** provide information on sustainability and environmental friendliness. **Certification institutes** provide certificates for sustainable products that are e.g. necessary within a country or to get access to subsidies. Finally **suppliers** provide environmentally friendly parts/machines.

**Costs and Revenues**

In this section we illustrate the costs and revenues that occur by operating the business model. The **consulting services** generate turnover by provisions for successfully mediated
subsidies whereas the consulting fee and costs arise mainly from personnel. The mediation of energy leads to turnover by provisions and costs arise from searching partners and negotiating with them. The removal of machines also generates turnover through disposal fees, the reuse of spare parts and rebuild of machines. Figure 6 shows sources for revenues and costs of the Sustainability Provider.

Costs arise from rebuilding the machines. Providing information to customers enables the Sustainability Provider to charge a user fee and costs arise from personnel and the payment of a user fee. The sales, leasing or renting of the machinery also creates turnover while the production and maintenance cause costs. Environmentally friendly and recyclable products and raw material generate turnover with sales or provisions. The development and production of these products cause costs. Finally trainings on environmental friendliness, sustainability and corporate social responsibility generate turnover by the training fee and cause costs by personnel and occupancy.

6 Contributions

The contribution of this research is the description of practical examples on business models focusing on sustainability. We also derived future developments (PESTEL drivers; five forces), future customer challenges and future customer needs regarding sustainability. Based on that we provided a detailed description of the business model on sustainability including the products and services, the value proposition, the resources, the activities, the partners, the customer relationship, the channels and the revenue and cost structure. Our findings close an existing gap of the current research regarding business models and sustainability.

7 Practical Implications

Managers and business developers will gain from the findings on the business model for sustainability with the detailed description of the elements. It enables companies to renew their existing business model or to innovate new business models. Furthermore it will
help to differentiate stronger from competition and to build better relationships with their customers. Managers and business developers will also find ideas for the illustration of business model elements.

8 Limitations and Further Research

This research reports some of the results we have gained within the “Centre of Excellence for Sales Management in Business-to-Business Markets”. Although we applied several research methods in order to practice triangulation, our research design challenges generalizability. Therefore the following issues await further research. In this context three steps have to be taken: firstly an analysis of additional existing business models on sustainability, secondly the further development of the illustration of elements and thirdly the further application of the business model in practice in order to prove usability.

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