

A b s t r a c t

At first glance, there seems to be a broad understanding regarding business models. However, a more thorough analysis of existing resources paints a different picture. The term 'business model' often remains undefined and a consensus on the elements of business models is lacking. An analysis of various sources, such as electronic databases, conference proceedings, and *EM – Electronic Markets* itself supports this statement. Nevertheless, business models are largely believed to determine the success of an electronic venture. To establish some structure and to identify the critical components of business models, the existing definitions and approaches were analysed and led to a model, which differentiates six business model elements. This model is also used to position the articles submitted to this special issue of *EM – Electronic Markets*.

A u t h o r s

Rainer Alt (Rainer.Alt@unisg.ch) is a Senior Lecturer and Project Manager at the Institute of Information Management, University of St. Gallen, Switzerland. He served as Executive Editor of this journal with Stefan Zbornik from 1993 to 1996 (Vol. 3 to Vol. 6). Prior to assuming his current position he worked for Roland Berger Strategy Consultants in Düsseldorf, Germany.

Hans-Dieter Zimmermann (Hans-Dieter.Zimmermann@unisg.ch) is a Senior Research Associate at the mcm institute for Media and Communications Management at the University of St. Gallen, Switzerland. He is managing the Competence Center Electronic Markets (CCEM), which has funded the editorial staff of *EM – Electronic Markets* for the last 10 years.

Preface: Introduction to Special Section – Business Models

RAINER ALT AND HANS-DIETER ZIMMERMANN

INTRODUCTION

Business models are perhaps the most discussed and least understood terms and aspects in the areas of eBusiness, eCommerce and eMarkets. Much talk revolves around how traditional business models are being changed and the future of e-based business models. Despite an intuitive understanding that seems to be widespread, a more thorough analysis reveals a confusing and incomplete picture of the dimensions, perspectives, and core issues of these business models. A reading of scientific, as well as non-scientific publications, presents a broad variety of understandings: auctions as a business model; B2B or B2C as business models; a subscription-based business model; a business model understood as 'revenue model'; vertical portal as a business model; and e-commerce as a business model, etc. Rappa (2000) provides a comprehensive overview of the different views on business models. He identifies 29 different types of business models, ordered in nine categories.

We feel that a common-sense understanding, a definition, or a taxonomy regarding business models are all lacking today. Furthermore, we find that there is virtually no discussion on this topic. However, the relevance of a sound business model seems to be undisputed. Many failures of 'eVentures' are due to their missing, ill-

defined or ill business model (Vickers 2000: 58).

Although resolving this dialectic situation is elusive at the current stage of discussion and research, we aim to shed some light and structure to this field. First, we present some evidence with a simple analysis of the diffusion of the term business model. In the second step, we present a variety of business model definitions and show the dimensions involved in the discussions about business models. These definitions will be used to suggest a working definition for business models, which also serves to position the articles in this issue.

BUSINESS MODELS IN LITERATURE

The term business model is widely used in both academia and practice. Importance is usually regarded as high, since a sound business model seems to influence the (potential) revenues and the future success of the eBusiness initiative. Business models determine participation of partners, channel conflicts, and revenues etc. However, there are multiple indications that neither the understanding nor the elements of business models are broadly available. In 1995, Shipley remarked that 'many enterprises do not have clearly articulated or presented business models and goals; nor are they static'. Viscio and Pasternack claimed in 1996

that classical business models were a nineteenth-century invention and have outlived their usefulness. Saban (2000) provides some recent figures on the lack of strategic planning in e-commerce ventures. A comparable situation is reported for the academic discussion. Grönroos *et al.* (2000: 243) state that ‘there is no systematic model available in the literature that would guide marketers in their development of Internet offerings of goods or services’.

To gain an impression of the current situation we conducted a simple and non-representative snapshot on the diffusion of the term ‘business model’. Electronic sources of consultancy firms, information providers, and journals were searched for whether the term business model was contained either in the title or in the keywords. Associated terms, such as business excellence model or business firm model are shown as well. The results, which are presented in Table 1, are surprising, since the analysis reveals that there are hardly any explicit references to business models.

We also analysed the new introduced mini track ‘Business Models for the Digital Economy’ at the AMCIS2000 conference [<http://www.csulb.edu/conference/ais2000/>]. Comprised of fifteen accepted papers, this mini track was one of the largest of the 44 mini-tracks that made up the conference. This reflects its importance on one side and the interest of academic authors in the topic on the other. However, an analysis of the papers yielded comparable results as our analysis above. In seven of the papers, the term ‘Business Model’ did not appear at all and only two papers present a brief discussion and definition of the term. Both definitions refer directly or indirectly to the definition provided by Paul Timmers in *EM – Electronic Markets* (Timmers, 1998). This article also highlights the need for a business model discussion, since it represents EM’s top-ranked article ever – regarding the numbers of downloads (http://www.electronicmarket.org/em_top_articles.html). However, this does not mean that *EM – Electronic Markets* has provided an explicit coverage of business models in the past. Again, we find that aspects relevant to business models have been discussed (see analysis in Table 2), but only a few authors provide an explicit definition. Therefore, the analysis of the nine preceding volumes of EM is in line with the results from the sources mentioned above.

VARIETY OF BUSINESS MODEL UNDERSTANDING

In the above sources, we are confronted with an understanding of business models that often remains unspecific and implicit. Many definitions begin with the transition from the industrial age into the information age and introduce a business model that consists of increased networking among multiple partners.

Schmid (2000a, b) argues that we are facing a new industrialization and that in the digital economy the scarce resource shifts from production to communication in a novel way and, therefore, the entire design of value creation systems is challenged. Westland and Clark (1999: 89)

Table 1. Results of Web-site Search ‘Business Model’ (30.8.2000)

| <i>Source</i> | <i>Title Search Exact</i> | <i>Title Search Associated Terms</i> | <i>Search Keyword</i> |
|---------------------|---------------------------|--------------------------------------|-----------------------|
| Emerald | 1 | | 3 |
| EBSCO Online | 5 | 12 | n.a. |
| Catchword | 4 | 3 | 3 |
| Gartner Group | 32 | n.a. | n.a. |
| Forrester Research | 2 | n.a. | n.a. |
| PWC Global | 2 | 2 | 4 |
| Andersen Consulting | 3 | n.a. | 2 |
| Amazon.com | 6 | 2 | n.a. |

elaborate the shift from a traditional business model for marketing to a new interactive e-commerce business model. Moore believes that the transition from the multi-dimensional form (M-form) to the ecosystem form (E-form) will be at the heart of future success and growth (Moore 1998). Gartner Group expects ‘knowledge-oriented’ business models to dominate in which a number of hub-like members share and organize knowledge and social relationships (Tunick Morello 1999). PricewaterhouseCoopers expects ‘metacapitalistic’ business models and predicts that ‘the century-old business model in which brand-owning companies put a premium on maintaining a huge internal base of physical capital . . . will crumble and give way to thinly capitalized brand-owning companies operating with external or outsourced networks’ (Means and Schneider 2000). Andersen Consulting (Friedman and Langlinais 2000) develop an intermediate or hybrid model that is customer-centric and ‘value is created at the relationship level across products and channels rather than at the individual product level’. A similar, more detailed model is presented by Österle (2000: 37) who defines an intermediary that supports the entire customer process (process portal provider) using a variety of standardized electronic services.

Explicit definitions and examples for business models are diverse. A closer analysis of the sources in Table 1 distinguishes business models that depend on their object and their purpose (see Table 2). The former describes the object of analysis and the latter the type of result, which is provided by the model. Regarding the models concerned objects, we found approaches at various levels of abstraction. The approaches address market structures and the roles businesses assume. On a general level, we find the decision to be whether a market or a hierarchical model shall be applied. More focused models concentrate on intermediation or direct distribution as well as on a specific market model, e.g. the implementation of an English auction. Very often these models are not industry specific and need to be brought together with industry models.

Table 2. Term 'Business Model' and Related Terms in *Electronic Markets* (Volumes 1 to 9)

| <i>EM Issue</i> | <i>Mentioned Terms</i> |
|-----------------|--|
| No. 9/10 | Auction model, economic model (Lee/Lee) |
| No. 11 | Simulation model (Hauser), Market micro structure models (Krähenmann) |
| No. 12 | Models of business processes (Steel) |
| No. 13/14 | Cost-benefit model (Gillies) |
| Vol 6/No. 2 | Electronic commerce model (Palmer <i>et al.</i>), Business model (Österle) |
| Vol 7/No. 1 | Model of an Electronic Market architecture, information model for EM (Schmid), Open Service Model, OMG Electronic Commerce Reference Model (Merz), Layer model, organization model (Zimmermann), business scenarios (Lindemann/Runge) |
| Vol 7/No. 2 | Business model, business development model (Westland <i>et al.</i>) |
| Vol 7/No. 3 | Business model, communication model (Zellweger), Business model, web assessment model (Selz/Schubert) |
| Vol 7/No. 4 | Pricing model (Wrigley), Trading model (Heck/Ribbers) |
| Vol 8/No. 1 | Business model, seller-to-buyer transaction model (Choi <i>et al.</i>), Consumer buying behaviour model (Guttman <i>et al.</i>), Electronic commerce model, electronic business model (Aldridge), Business model (Rao, M.) |
| Vol 8/No. 2 | Business model (Timmers), Virtual business models (Scharl/Brandtweiner) |
| Vol 8/No. 3 | International trade transaction model (Lee), Business model (Dasgupta), Business contracting model, business model (Daoud) |
| Vol 8/No. 4 | Business model (Dowling <i>et al.</i>) |
| Vol 9/No. 1/2 | Model for electronic commerce (Steinfeld/Klein), E-tail model (Rao), Business model (Palvia/Vemuri, Mehta), Electronic commerce model (Lima/Alcoforado) |
| Vol 9/No. 3 | Revenue models, business model (Segev <i>et al.</i>), Business model (Klose <i>et al.</i> , Saanen <i>et al.</i> , Rao, B., <i>et al.</i>) |
| Vol 9/No. 4 | Business model/direct sales model (Werthner/ Klein), Price model, business model (Hess), Business model (Minakakis/Rao), business model (Light) |

These approaches distinguish the business-to-business (B2B) and business-to-consumer (B2C) model on a general level. Again, more detail is provided by B2B or B2C-centric approaches and specific industry models, e.g. a B2C model

for the retail industry. Finally, we find the sources of revenue as objects for business models. A popular example is the distinction between a subscription and a fixed-price revenue model.

The second dimension of the analysed business models refers to their purpose. We found:

1. references to business models, which provide specific advice for companies mostly on a strategic level;
2. more generalized models, which aim at standardizing specific roles, processes etc., as well as
3. simulation models, which stem from the area of operations research and quantitative economics.

For the rest of this preface, we will disregard simulation models, except for Table 3.

BUSINESS MODEL ELEMENTS

In the next step, we aim to analyse available definitions of business models and try to derive some generic elements, which we will then use to sharpen our definition of business models. Among the established definitions are:

- Timmers (1998: 4) who conceives a business model as ‘an architecture for the product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors; and description of the sources of revenues.’
- Tapscott *et al.* (2000: 17) discuss business innovation models that they refer to as business webs (b-webs), which ‘are inventing new value propositions, transforming the rules of competition, and mobilizing people and resources to unprecedented levels of performance . . . A b-web is a distinct system of suppliers, distributors, commerce services providers, and customers that use the Internet for their primary business communications and transactions.’

Very clearly, both definitions of business models consist of multiple elements. This is supported by Kraemer *et al.* (2000) who do not define the term business model explicitly, but identify four building blocks of a business model: direct sales, direct customer relationships, customer segmentation for sales and service, and build-to-order production. Also Viscio and Pasternack (1996) developed a ‘new business model’ comprising five elements: global core, business units, services, governance, and linkages. In order to bring together the various lines of thought and to establish a common denominator for the business model discussion in this issue, we will distinguish six generic elements of a business model (see Figure 1):

- *Mission.* One of the most critical elements of the business model is developing a high-level understanding of the overall vision, strategic goals and the value proposition

Table 3. Variety of Business Models in Literature

| Model Type | Example |
|-------------------------------------|--|
| <i>1. Object of business model</i> | |
| Market and role models | <ul style="list-style-type: none"> • Market/hierarchy business model (e.g. Malone <i>et al.</i> 1987; Marchewka/Towell 2000) • Broker business model, intermediation model, direct sales model, business model of the information age (Österle 2000) • Market model, auction model (e.g. Vickrey auctions, such as English, Dutch, sealed-bid, double auction) • Business webs/business model innovation (Tapscott <i>et al.</i> 2000: 30): Agora, aggregation, value chain, alliance, and distributed networks • Business models (Hagel/Singer 1998: 206): customer relationships, product innovation and commercialization, and infrastructure management • Value Web Model (Selz, 1999: 99) |
| Sector and industry models | <ul style="list-style-type: none"> • B2C and B2B business models (e.g. Kalakota/Whinston 1997: 18; Rao 1999, Ingalls 2000; Graham/Hardaker 2000) • B2C business models (Roussel <i>et al.</i> 2000): Content sites, portals, direct-sell-sites, brick-and-click 'e-tailers', dot.com e-tailers, e-marketplaces • B2B business models (Kaplan/Sawhney 2000): two-way aggregators, seller aggregators/buyer aggregators, dynamic market makers, forward auctioneers/reverse auctioneers • Retail business model (Elliman/Orange 2000: 351), a banking business model, ISP business models (Westland/Clark 1999: 81) • Timmers (1998: 5): e-shop, e-procurement, e-auction, e-mall, 3rd party marketplace |
| Revenue models | <ul style="list-style-type: none"> • Subscription-based business models, fixed-price business models |
| <i>2. Purpose of business model</i> | |
| Business model | <ul style="list-style-type: none"> • Shapes important elements of the eVenture of a company • Closely related to corporate strategy |
| Reference model | <ul style="list-style-type: none"> • Aims at providing a generalized model for eBusiness • Has to be adapted to a specific company |
| Simulation model | <ul style="list-style-type: none"> • Builds formal models for simulation of economic action • Used for simulation of markets (e.g. micro-market theory) |

including the basic product or service features. Stepanek (2000: EB 24) mentions that a compelling business model, which takes into account the potential of the Internet in a new and creative way should lead this vision. Stepanek goes on to write, 'Surprisingly, what distinguishes many of the most Web-savvy companies is not their technical prowess, but their imagination'. For example, eBay created entirely new transactions that did not exist in the offline world (Vickers 2000: 59).

- *Structure* determines which roles and agents constitute and comprise a specific Business Community (be it a value chain or value web) as well as the focus on industry, customers and products. For example, the Chemconnect marketplace focuses on large customers in the chemical industry and on spot volumes of chemical commodities.
- *Processes* provide a more detailed view on the mission and the structure of the business model. They show the elements of the value creation process, i.e. the activities of the eMarket, and portals, etc. and which requirements they address in the customer process (Österle 2000: 45). An example would be the process of configuring a product in a 'reverse engineering' process. Processes also include the eBusiness or eMarket pro-

cesses, i.e. coordination mechanisms, such as the auction process.

- *Revenues* are the 'bottom line' of a business model. Looking back at 238 dot-com startups in 1999, Vickers (2000: 58) remarks that 'the problem was that their business models stank – i.e., the companies just couldn't make money'. Sources of revenue and necessary investments need to be carefully analysed from a short and mid-term perspective as well. Relying on the long-term mission, a strategy known like Amazon's, needs to be balanced with revenue aspects to sustain the independence and viability of the startup.
- *Legal issues* have to be considered with all dimensions of business models: e.g., legal issues may influence the general vision. For example, the banking industry is one where most markets are still regulated in some respect. Legal issues also may influence decisions on structures of value creation systems like value webs, processes of value creation (e.g., privacy laws), and revenue models.
- *Technology* is both an enabler and a constraint for IT-based business models. In addition, one has to take into account the ongoing technological developments and their impact on the business model design. For example,

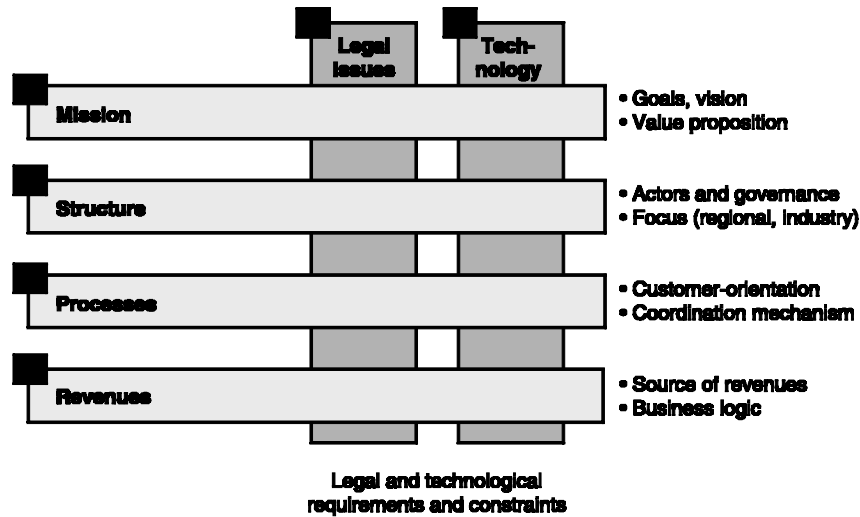


Figure 1. Generic Elements of Business Models

the current, mobile communication technology limits the options for applications of mobile customer interaction. However, third generation mobile communication technology (UMTS) will enable a huge number of potential applications. Thus, technological issues affect all aspects of business models, the overall mission, as well as structures, processes, and revenue models.

As the definitions suggested, a business model consists of many dimensions. There will not be a single business model. We follow Shipley (1995) who argues that: 'IS organizations will formalize multiple business models for focusing and measuring IS activities and results . . . We do not believe that there is a single set of business models which apply to all, or even a majority of IS organizations.'

Following that view we propose the presented six generic elements as a comprehensive framework in order to develop sustainable business models in the new economy. When designing a business model (a) all six generic elements and (b) the dynamics of the respective elements have to be considered.

ARTICLES IN THE FRAMEWORK

All papers of this focus section on business models provide a valuable contribution to the ongoing discussion about the understanding of business models. In regard to the proposed framework they can be positioned as follows.

Ulf Essler's article, entitled 'Re-Thinking E-commerce Business Modelling in Terms of Interactivity' emphasizes the modelling aspect of business models and focuses on interactivity as the key dimension in e-commerce. It provides a thorough discussion of some fundamentals of business model modelling based on a three phase scheme of business transactions and stressing the characteristics of the cyberspace as a 'fluid realm of actions'. As one result the paper argues that a shift in business modelling from

enterprise architecture to specification of interactions is appropriate. Therefore the paper addresses mainly the topics of structures and processes of business models considering the opportunities of emerging technologies.

Pramataris, *et al.*, in their work 'Personalized Interactive TV Advertising: The iMEDIA Business Model', pick up the topic of interactivity focusing especially on 'personalized interactive advertisement content' based on technological opportunities in the environment of interactive TV. When discussing the proposed business model the authors focus especially on structures namely on roles within the respective business community analysing their particular objectives, benefits, and relationships. Thus, the papers addresses mainly structures as well as processes.

Kenneth Saban addresses the mission topic of the proposed framework in his article, 'Strategic Preparedness: A Critical Requirement To Maximizing E-commerce Investments'. The author discusses the 'benefits derived from being strategically prepared before launching any Web related programme'. Based on a literature analysis the paper develops an approach to e-commerce strategy development that also considers the company's conventional business strategy, the Integrated E-Commerce Planning Model, followed by a discussion of the respective implications.

The fourth paper by Thomas O'Daniel ('A Value-Added Model for Electronic Commerce') addresses mission and structural issues as well as emphasizing the value added issue. It presents a model of value-added roles which is well grounded in the literature. The paper provides an in-depth discussion of different basic models and four common classes of roles followed by some exemplary practical applications. A major goal of the model is to provide a solid foundation for the systematic analysis of e-commerce applications.

All the papers of this focus section provide a valuable contribution to the ongoing discussion about the understanding of business models.

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