### The Place of the Business Models as a Part of the Innovation Process

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Abstract: Business models have been studied on a large scale throughout academia and industry - partly for their indisputable importance for the adoption of technological innovation, but also for their intangible nature. But there still is room for speculation on the place business models occupy in the innovation process. On the one hand projects need to be doscussed with a perspective on Return on Investment (ROI), on the other hand, a business model perspective might hinder innovations that first seem unlikely to return profits in the nearby futre, but become highly successful over time (e.g. Facebook). This paper is dedicated to the question when is the right moment to define the business model. We give a brief overview of theoretical pillars of innovation and then suggest a comprehensive process comprising business modelling as a part of the idea acceptance phase in the innovation process.

Keywords: business models, innovation management, business development, business design, business model frameworks, business model patterns, software engineering

### 1 Introduction

One of the characteristics of innovation is its successful adoption at the market (Burgelman u. a. 2008). Even though successful adoption is not necessarily accompanied by commercial income, innovation mostly needs a business model to facilitate its growth. An example for this is the successful growth of Aravind Eye Hospital (Sharma & Kakoti 2012), an eye surgery service provider which operates sustainably at lowest prizes in a growing number of rural areas in India. This growth was enabled though the organizations business model. This is just one example which illustrates the importance of the business model in the innovation process.

### 1.1 The business model nature

The business model has gained importance after the bubble burst in 2001. With Internet access, and the complex environment of the globalization the term business model evolved to an individual science sector. The most popular definition of a

business model refers to it as "a construct that describes how a company creates and captures value" (Henry Chesbrough 2007).

There are however contradictive opinions about its nature. Whereas some almost exclusively define it from a financial perspective (Dubosson-Torbay u. a. 2002)(Rappa 2001), i.e. How does one business make money, others accentuate on its competitiveness (Magretta 2002)(Negelmann 2001), i.e. What is the value proposition. Some researchers see business models as conceptual (Tapscott 2001)(Timmers 1998) rather than financial models. Researchers are also divided on the question if the business model is part of the strategic framework ((Hamel 2002; Osterwalder u. a. 2005)) or are to be handled as an indivudal discipline, i.e. "the business model as the product" (Maurya 2012). An important aspect of the business model definition is if this includes the technology characteristics ((Chesbrough & Rosenbloom 2002)) and/or sales channel (strategy vs. operations), e.g. in (Osterwalder & Pigneur 2010)or if the business model can be developed on paralell (Skarzynski & Gibson 2008).

### 1.2 The classic innovation process



Figure 1

The three phase of the classic innovation process: (1) idea generation, (2) idea acceptance, (3) idea realization (Nielsen 2001)

Every innovation process comprises three stages: (1) idea generation, (2) idea acceptance, and (3) idea realization (Nielsen 2001). An economic assessment of the ideas in the beginning of the process requires the identification and formulation of a business case, i.e. the idea "value" or the business model. In a world of short resources we assume that only ideas which offer a return on investment (ROI>0) should and can be realized. This means that before the beginning of the third stage, (3) idea realization, a ROI should be quantified. This is the goal of the second stage, (2) idea acceptance. Narrowing the scope in the first stage, (1) idea generation, is not recommendable for two reasons: (i) ideas in the first stage are on a high level yet, so that their ROI can't easily be quantified, and (ii) focusing on ROI too early would destruct creative potential, e.g. by neglecting insights from research and development (R&D) that might be critical. In an enterprise environment business modelling is usually part of the last stage of the process, usually after a considerable development effort. One of the reasons for this is that depending on the product concept the product might become part of different departments which operate under diefferent business models, e.g. in online advertising one team might be operating with performance marketing, and another subsription services. If a new ad distribution technology appears it might land in the idea generation process through the R&D department. Subsequently different teams would develop different product concepts on the basis of this technology. However, only after the second phase they would decide to test the idea or withdraw it. This is due to a partial business modelling subprocess in this phase (i.e. business case), but a business model is only created after the product touches the market.

Startups however, do not have many departments and their obligations to a department business model policy. So, when is the right time for them to model the business?

# 2 The place of the business model in the innovation process

### 2.1 Business modelling as a triggering point of the innovation process



Figure 2

Business models as a triggering point of the innovation process

It is widely accepted that the business model is the connecting piece between the entreprenurship and innovation processes, i.e. as a starting point towards an innovation process (see Figure 2). This perspective becomes increasingly interesting with the growing speed of technological change since new technology might reveal new business model opportunities, i.e. new technology might facilitate new business models<sup>1</sup>. E.g. if a company sees an opportunity in its API as a strategic tool, it might generate only ideas based on this particular business model.

### 2.2 Business modelling as an output of the innovation process



Figure 3

Business models as a product of the innovation process

<sup>&</sup>lt;sup>1</sup> E.g. growing importance of api as a strategic tool (Amazon, eBay, Apple AppStore etc.)

An extreme perspective in this direction might even see the business model as a "competitive advantage" (Christensen 1997) or even as the output, the product, of the innovation process (Maurya 2012) (see Figure ). E.g. a group of students that created an online application for event management without might end up as a market leader in business event management and ticketing. This is the case of the German company Amiando which was acquired by XING.

## 2.3 Business modelling as a core element in the acceptance phase of the innovation process



Figure 4

Business modelling as a passive construct containing the entire innovation process

For some researchers business modelling is an integrate part of the entrpreneurship process (Sahlman & Stevenson 1989). Those describe the business model as an hierarchical construct which contains all elements of the innovation process – from opportunity recognition, towards marketing and finance elements, and the process of resource acquisition (see Figure ). As such the theoretical term business model is trimmed to a passive condition, a description construct which illustrates the mechanism, but does not actively influence it. I.e. the business model is an abstract construct containg the entire innovation process and its outcomes.

Others allocate business modelling a trading, almost algorithmical, function, following the innovation process and turning technology into business (Amit & Zott 2001; Osterwalder & Pigneur 2010). Therefore, the outcome of the commercialization of one technology depends on the business model it is based on ((Teece 2010). In other words value is created not only by the technology itself, but also through the business model.

We consider the business model an integral process, comprising thre main elements: opportunity recognition, solution architecture, and a commercialization plan. We work with those three stages of business development to investigate different business model patterns in the area of software.

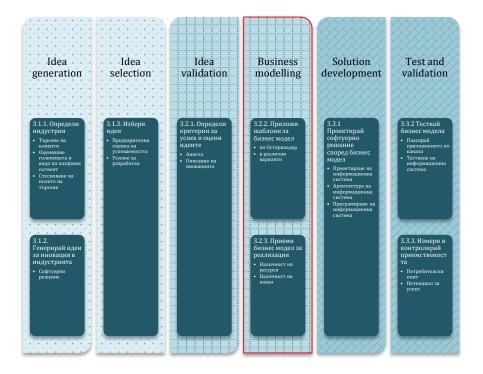


Figure 5

Business modelling as a core part of the Idea Acceptance phase of a comprehensive innovation process

### 3 Discussion and conclusion

The comprehensive process can be used in the entrepreneurship process as well as for scientific research. It is detailed and contains all stages of the innovation process and clearly defines when a company should pursue with the business modelling. This theory contradicts to the descriptional purpose of business models in which those usually serve the communication target. Moreover it offers business models a central place in the innovation process, without necessarily seeing them as a product of innovation.

The framework has been approved by a test set of 8 companies in the area of software. In further research this framework has to be applied on the innovation process of young companies to validate it. In this version it has only had the focus of young software companies. Later on, it can be tested on a number of industries to inestigate its operability in other domains.

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Management, Enterprise and Benchmarking in the  $21^{\rm st}$  Century  $\rm Budapest,\,2015$