

THE BUSINESS MODEL OF A START-UP COMPANY¹

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Abstract

The article focuses on issues related to the business model of a company at a very early stage of its development. In this case of key importance is the business concept itself and the way it is organized, i.e., how it creates value for the customer and market competitiveness. Business Model Canvas presented here, is a framework for the analysis of its key components. This approach is static, offering a photograph of the status quo of the business model that can be developed into a more dynamic approach taking into account the factors of time and change. The aim of this case study is to present an innovative business model of the company X, whose products are ecological bamboo bikes as the company follows the mainstream social responsibility of business.

Keywords: *business model, canvas, bamboo bicycle.*

1. Introduction

The concept of the business model remains a very popular area of interest, both among business practitioners and the academic community. Until August 2015, the Google Scholar had shown approx. 110,000 results using the phrase *business model* or *business models*. On the other hand, in the Web of Science database, including all nine databases and phrases of interest to us as subjects, 14,123 different documents could be found in the same period. 9,056 results alone were the articles in interdisciplinary research areas such as science technology, social sciences, and arts and humanities. This confirms the initial assumption about the popularity of the research topic, focusing primarily on the identification, the analysis of the business models themselves or with respect to other constructs, such as financial performance, competitive advantage of the business, and many others.

The aim of this case study is to present an innovative business model of the company X, whose products are ecological bamboo bikes as the company

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follows the mainstream social responsibility of business. For the preparation of this case study secondary data³ have been used. The author made an attempt to analyze and evaluate the business model of a micro-enterprise, indicating trends in its development, as well as the accompanying limitations. The article consists of a short theoretical section, referring to the essence of the business model and its components, with particular emphasis on the concept of Osterwalder and Pigneur (2010). The empirical section discusses the business model chosen for the case study research. The final section of the article is a summary and general conclusions from the analysis of the business model.

2. Business model

Much has already been written about business models, also in the works by the author (Freiling 2015; Ujwary-Gil 2015; 2014; 2014b), and the works under the 7th Framework Programme of the European Union and the Reinvent project, of which the latter closely relates to the business models of the creative sector and the small and medium-sized enterprises operating within the sector (Jasiński, Rzeźnik & Candi, 2015, Jasiński & Rzeźnik, 2014; Jasiński, 2013; Jasiński, Rzeźnik & Candi, 2013). However, the aim of this case study is not to review the existing definitions in the literature. For the purpose of this discussion a few of them that truly capture its essence have been chosen. For example Magretta (2002) discusses it in the context of narration or the logic of the functioning of a company, allowing to understand how businesses operate.

Hence, the key position is held by its customers, the value for the customer, or making money and its division into two complementary parts, namely:

- 1) activities related to, amongst others: design, purchase of materials, production,
- 2) sales: finding and attracting customers, sales transactions, distribution of a product or services.

The innovativeness of the model may therefore result from innovative product(s) or innovative processes, as part of the company's value chain. On the other hand, according to Afuah (2003, p. 20) "business model is the method employed by the company to enrich and use resources, in order to provide customers with an offer of products and services whose value exceeds the offer of competitors, and at the same time ensures company profitability". In other words, the business model is a simplified and aggregated presentation of relevant activities of the company, in which the element of the added value is created on the basis of generated products, services or information (Wirtz, Pistoia, Ullrich & Göttel, 2015 in press). It builds a kind of architecture of

³ The article uses publicly available data about the company and its activities: <http://innpoland.pl/120493,student-sgh-produkuje-w-afryce-rowery-z-bambusa-kazda-sprzedana-sztuka-funduje-stypendium-spic-po-3h-dziennie-ale-warto>

creating value (Teece, 2010), as well as taking into account the strategic elements of customers and market, in order to achieve competitive advantage.

Regardless which of the business model definitions be considered the most accurate, the most highlighted elements of most of the definitions are those of creating value for the customer and competitive advantage. This case study will be based, however, on the popular and comprehensive template of the business model (business model canvas) by Osterwalder and Pigneur (2010). Its nine parts are in fact an organized way for it to base its assumptions on not only the most important resources and key activities of the value chain, but also of value propositions, customer relationships, sales channels, customer segments, cost structure and revenue streams – which makes that model easily comparable with other business models existing on the market despite the quality of components that constitute it.

Business Model Canvas

It is worthwhile to present the components of Business Model Canvas here (see Table 1). The model is divided into four related areas:

- resources and activities,
- relations,
- value,
- finance.

In the first area we find Key Activities and Key Resources. In this component of the business model the most important steps are characterized, namely those a company must perform in order to provide added value, establish a relationship with customers and generate revenue structure. Key activities can be divided into production, troubleshooting and sustaining computer infrastructure. Production is the design, manufacture and delivery of products in specified amounts. Troubleshooting is an activity involving customer support to achieve absolute clarity or help with unexpected situations. In turn, the key resources are also needed to generate added value and reach out to segments of customers through distribution channels. Key resources can be divided into physical ones (money, machinery, automobiles, outlet stores, servers), which are usually more capital intensive, and intangible ones (people, their expertise, brand, patents, copyrights or customer data).

Table 1. The Business Model Canvas – four areas

Resources and activities	Relations	Value	Finance
Key Resources: <ul style="list-style-type: none"> • Tangible (physical and financial) • Intangible (intellectual resources and people) • Key Activities: <ul style="list-style-type: none"> • Production • Problem solving • Platform or network 	Customer Segments: <ul style="list-style-type: none"> • Mass market • Niche market • Segmentation • Diversification • Multilateral platform • Channels: <ul style="list-style-type: none"> • Vendors • Internet sale • Retailer • Partner store • Wholesaler • Customer Relationships: <ul style="list-style-type: none"> • Personal support • Dedicated customer support • Self-service • Automated service • Communities • Co-creation • Key partners: <ul style="list-style-type: none"> • Optimisation and economies of scale • Reduction of risk and uncertainty • Adoption of specific resources or activities 	Value Proposition: <ul style="list-style-type: none"> • Novelty • Performance • Addressing individual customer needs • Effectiveness • Project • Brand and status • Price • Lower costs • Lower risk • Availability • Convenience and usability 	Revenue Streams: <ul style="list-style-type: none"> • Asset sales • User fee • Subscription fee • Hire and lease • Licensing • Commission • Advertising • Cost Structure: <ul style="list-style-type: none"> • Cost centred structures • Value centred Structure • Fixed costs • Variable costs • Economies of scale • Economies of scope

Sources: based on Osterwalder & Pigneur (2010).

The second area includes the components of external relations, such as Key Partners, Customer Relationships, Channels and Segments. The concept of key partners describes the network of suppliers and contractors who make the company operate. They could be the most important suppliers, joint ventures established to provide new products or services, a strategic partnership between competitors or a strategic alliance with a company in another industry. The customer relationships component describes the type of interaction that the company establishes with separate customer segments. The nature of this relationship may consist in personal, direct, or even fully automated contact. It all depends on specific expectations of a particular customer segment. Personal relationship relies on direct interaction with the customer. The client can communicate with a consultant who will offer advice

when a product or service is being sold. In contrast, dedicated personal contact is far more common in the business-to-business category, where building customer relationships takes a long time and the customer's decision to make a purchase requires considerable support from the sales representative. A completely different type of relationship is the self-service, such as petrol stations, car washes, and bike rentals.

Another type of contact: co-creation, which goes beyond the traditional types of relationships. In this type, the customer co-creates value with the company. This is exactly how, e.g. book reviews in online bookstores or internet services of consumer opinion function. Selecting the type of relationship also depends, to a large extent, on the costs incurred, and integration with other elements of the business model. Channels are a component that describes how the company communicates and reaches the customer segment, in order to provide the added value. They provide the customer with knowledge about the products and services of the company. They help customers evaluate added value, allow the purchase of company products or services, and finally, provide after-sales support. The main component of this area, however, is the customer segment that defines its different groups. To better understand and more effectively meet the needs of customers, businesses divide them into groups with different needs, behaviour or other properties. The business model can define one or more customer segments such as: a mass customer, distribution, the niche market, the segmented market, the diversified market. Naturally, meeting the needs of a customer segment requires a business legitimate outstanding offer and specific distribution channels. A particular segment generates specific patterns of behaviour and building relationships with customers, and it has separate profitability.

The third area is the logic of the business model, the meaning of its existence. This is where the component of the value proposition belongs, provided on the basis of services or products. The abovementioned value proposition is the reason why customers choose one company over another. The value for the customers is to satisfy their specific needs or solve the problems. In other words, the value proposition is a set of benefits that the company offers its customers. Sometimes, the value proposition can be innovative and offer benefits yet unheard of in the market. Another added value is to offer products or services already existing in the market, enriched with a certain characteristic or attribute. The value proposition can be expressed quantitatively by price, or the time services that are delivered, or qualitatively as design, customer experience in dealing with a product or service, comprehensive service.

Brand is also an element which adds value. In turn, offering similar added value at a lower price is a common way of meeting the needs of a customer who pays attention to the price of goods. In creating value by reducing the

risk, all kinds of warranty licenses on products purchased are helpful. Yet another element of added value is the availability of services, as in the case of a municipal bike rental system.

The overall framework of the business model closes the financial area, which includes Revenue Streams and Cost Structure. The component of revenue describes the way in which the company generates revenue from various customer segments. The mechanisms may be different, based on single or multiple purchases by the client. We can list here the following: the sale of ownership rights to physical goods, the fee charged for using the service or product, subscription fee charged for access to the service, or licensing. In turn, the cost structure describes all the costs generated by the business model. All of these activities: creating and delivering added value, maintaining relationships with customers, generate costs.

All the components briefly described above create a business model, which is characterized by a high degree of flexibility in describing the business models operating in different industries. The above description does not exhaust techniques that the authors propose in order to create a good business model.

3. Richard Branson of social entrepreneurship

The company X was founded as a result of its founder's inspiration and delight over Africa, which he discovered during his numerous trips to the developing countries: India, Colombia and Kenya. The main objective of the company is to create bikes that are changing the world by supporting the local community in Africa. Bicycles are made from bamboo wood which is five times stronger than steel or aluminium, they are environmentally friendly, lightweight (weighing approx. 12 kg), with a unique design (Figure 1):



Figure 1. The bamboo bike

Source: Company materials and Kotliński (<http://innpoland.pl/>).

As the founder emphasizes, the company X creates much more than ordinary bikes. The company wants to be a socially responsible manufacturer, to create bikes that are fun to ride, while changing the world for the better. The customer will not find two identical bicycles. The frame is handmade from bamboo wood. The unique design catches the eye, and the customized colouring strikes. We see here a return to natural materials, promoting sustainable development. Bamboo grows widely on five continents, up to 90 cm per day. Therefore, the production of bicycles is environmentally friendly. Bicycles are handmade in Ghana as part of a social initiative called the Yonso Project. The purchase of each bike finances educational scholarships for young people in the African region, which makes positive changes possible. Social entrepreneurship and socially responsible business are becoming increasingly popular.

Observing the Western trends, people are starting to take notice of where the product originates from and whether it has positive impact on their environment. Bamboo bikes have gained immense popularity in the United States and Germany, but each manufacturer has its own idea on how to stand out or define the added value for the customer. Of course, the bikes are also in Uganda, Zambia, the Philippines, and Vietnam. In Poland, we observe changes in trends and lifestyles in cities where cycling infrastructure is improving with well-maintained cycling lanes. A bicycle has become not only a means of transport, it has become a lifestyle, a fad, and also an element of self-expression, therefore it is the company's intention to make every bike different.

The frames are manufactured in Ghana, in the region, by the Boomers International company, and are later imported by the company to Poland, where the remaining components are assembled. The business model of the company is based, among others, on co-creation and involving customers in the product design process. Therefore, in the bicycle development process, customer development and incorporation of lean methodologies of start-ups were important. The company's beginnings are difficult, due to the lack of investors and funding for the development of the project, problems typically faced by young businesses, start-ups. The company is financed mainly from personal savings, salaries, and loans from family and friends. Despite these difficulties, the first pre-sales are planned for March 2016. The basic urban model will cost around 4,000 PLN (approx. € 1,000), which is not cheap by Polish standards. The premium model, more classic in design, will be more expensive. The handmade frame, or the soul of the bamboo bike, constitutes the main share of the price. There is still a big question mark over what motivation will lead customers to the purchase of such an original bike by Polish users (and later, when the company develops, expansion to foreign

markets is planned). It is difficult today to predict whether it will be the social aspect and the prospect of funding a scholarship for young people from poor regions of Ghana. However, the owner of the company strongly believes it to be so and wants to run his business according to the principle: Do well and do good.

Socially responsible business model

Bicycles made from bamboo, which first appeared more than a hundred years ago, then quickly disappeared, have returned as a potential catalyst for economic growth and job opportunities in Ghana through the Yonso Project and Boomers International (BI). BI is a subsidiary of the social Yonso Project which produces and markets bamboo bicycles on international markets and in Ghana. Boomers aims to improve transport, ensure youth employment, mitigate climate change, and reduce poverty in rural communities. The main mission of the company is to produce high quality bamboo products which provide both economic benefits as well as social benefits for customers worldwide. Boomers allocates 20% of its profits to the Yonso Project, and each sale of a bamboo bike also helps improve educational opportunities and empowerment of women in rural areas in Ghana. It reduces migration between urban and rural areas, furthers traffic flow, has impact on employment and minimizing degradation of the environment. Promoting the production of bamboo goods, as opposed to those made from wood or metal, helps salvage the forests, reduces carbon dioxide emissions, and improves the quality of air and water.

Above all, however, it makes employment of young people from the local villages possible, offers work training opportunities, teaches sanding, gluing and binding bamboo bicycle frames. The production capacity of the company is very low, about 50 frames per month (600 frames per year and 11 employees), using locally produced bamboo and cassava flour mixed with epoxy resin, as one of adhesives, and simple tools, such as chisels, screwdrivers and wrenches. Wheels, brakes, and seats are standard, manufactured from metal and rubber components available on the market. But the bicycle frame is made of bamboo, which absorbs vibrations from bumps on the road well, therefore it is perfect for high performance rides, such as mountain biking.

Costs of production

The manufacturing cost of the Yonso Project bike ranges from \$130 to \$180. In Ghana, the bicycles can sell for Ghc400 (€85) each. In the case of exports to the United States, the Netherlands and Germany, the frame itself costs about

\$250. The components are made from local Kante fibers. Production costs are high, because due to the lack of funds to reinvest, there are also difficulties in buying large quantities of the components at a wholesale price. The company currently sells Boomers bicycle frames at a price of \$220 to distributors in Germany, the Netherlands, Taiwan and Australia. The company also sells frames online at a price of \$300 – \$350. The net profit is \$85 per frame, of which the Yonso Project receives 20% of all profits to finance the educational fund and scholarships, libraries and corporate loans in the so-called micro-financing scheme for women in rural areas. Over the next five years, the goal of Boomers is to conquer the world market through the production of means of transport, furniture, household items and even houses.

The business model – initial stage of development

The company, as mentioned above, operates mainly single-handedly, struggling with the problem of recapitalization of the project. In this initial stage of creating the model, of the first and foremost importance is to offer value to potential customers, the value being: the uniqueness of the product in the domestic market, the novelty, convenience and usability, tailoring the project to individual needs, defining the status of its user, and also the sense of helping the needy (the social aspect). The main resources of the company at this stage are the financial resources essential to run the presale of the bicycles, a simple and easy to navigate website and the intellectual capital of its owner. Actions undertaken at this stage are, above all, aimed at operationalizing production and establishing a network of business relationships with subcontractors.

In the area of relations, the business model defines customer segments, which due to the relatively high price of the product, will include wealthier customers from urban areas, financially well off freelancers who value originality and functionality. It is incorrect to call this a niche market as the product is widely used and produced. However, what makes this product unique, is the added value for its users (product customization), or the possibility to co-create the product. According to the presently valid strategy, the bicycles will be sold mainly through the company's website, with the personal support of the owner and the Facebook community, and their production will be possible based on the major partner – the Boomers International company. The possible risk of uninterrupted supply of the main component, the bamboo wood bicycle frame, cannot be ignored, especially if we take into account the shortcomings that may arise in production capacity of the company. Production downtime can result from frequent power outages in this part of Africa (time-consuming manual production). At this stage of early development of the company, unit costs (fixed) of manufacturing a bicycle will be quite high, and creating

economies of scale and scope requires time, which would perhaps lower the price of the product. But then would proposition of added value in the form of brand, the status associated with the use of the product inaccessible for most buyers, be the *raison d'être*?

4. Conclusion

This article is an attempt at presenting an innovative business model of the company operating in the bicycle industry, based on the theoretical business model which has repeatedly been subjected to empirical verification⁴, as in the hereby case study.

Focusing on the methodology of the business model canvas alone, it should be emphasized that this is a static approach, a framework for the coherent description of its main components and their relationships. At this stage, it is nonetheless quite sufficient to determine what the business model of a company really is. And we should not expect anything more here. The inclusion of more advanced models, tools, analytical management techniques and indicators to measure the effectiveness is justified when the model is more stable in terms of resources, activities, is advanced in its development, in which the individual components of the model are sufficiently developed and eligible to be analyzed, simulate, or change.

The concept of Osterwalder and Pigneur seems a rigid structure in which the business model is analyzed. It must be remembered, however, that its nature is to organize and characterize the model (what it consists of). Without these components (no matter what they are, because every author's concept is different), it would be difficult to compare models against each other and define a universal structure of the model. For the new companies, which, by definition, are flexible because the market demands this flexibility and adjustment of actions – the business model is not and cannot be a hindrance but merely a direction on how to create, deliver and capture value for the customer and the company. Often the company founders themselves are a

⁴ As it has been mentioned above, the Author is involved in the research project under the European Union 7th Framework Programme for research, technological development and demonstration under grant agreement no. 324448 (FP7-PEOPLE-2012-IAPP), entitled Reinvent, the aim of which is to develop knowledge about how SMEs in creative sectors – SMEs operating in both digital and non-digital markets – can implement business model innovation as a means to enhance competitive advantage, and put this knowledge into practice in three SMEs. Reinvent will create opportunities to evaluate and validate business model innovation as a competitive tool for European SMEs through empirical research among SMEs in the partner countries. The research to be conducted in Reinvent is particularly relevant right now as Europe faces the challenge of finding ways out of the current economic recession. Identifying the keys to creating successful business models with which recovery based on innovation and entrepreneurship in the creative sectors can be achieved is particularly urgent. Reinvent will have substantial impact for European SMEs, which need approaches, methods and tools to develop competitive strategies. Reinvent will develop, implement and evaluate tools for business model innovation. Developing the capability for business model innovation in SMEs across a range of creative sectors will contribute to European firms' ability to create and maintain competitive advantage. A comprehensive impact and dissemination strategy has been devised, including dissemination and networking aimed at the general public, policy makers, academia and industry, particularly SMEs. This will ensure that the project impacts SMEs outside the consortium and, thereby, at a broad European level.

more severe constraint for new business models of their own companies, through their short-sightedness, lack of reliability, timeliness, lack of ideas on promotion and advertising, through neglect they miss opportunities for development offered by start-ups.

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