BUSINESS MODELS BASED ON SUSTAINABILITY. PRACTICAL EXAMPLES

Modern companies which look for sources of competitive advantage are more and more often taking into consideration concepts that allow them to assess their business activities in wider perspective than only of financial or marketing nature. The concept of sustainable development has become an important element in the public debate on the role and place of business in the modern society. Business organizations are expected to behave in socially responsible way including economic, ecological and social aspects of their operations. Sustainability, next to the other concepts, helps to understand complex relationships and improves ways of gaining common goals in a win-win strategy.

Companies that are searching for a competitive advantage by using sustainable development adapt its principles to their strategies and business models. At the core issues of sustainable business models lie multiply value creation and strategic approach of development and survival on the market. Sustainable business models combine many of the concepts that characterize social and environmental values next to the traditionally understood business dimension. The paper aims at presenting the general view on sustainable business models. The attention will be put on short cases that illustrate how the sustainability may be translated into business practice.

Keywords: sustainability, sustainable business models, business practice of sustainability, business models

1. INTRODUCTION

Management of modern enterprise requires a broad view on the business environment and its processes. The concept of sustainable development may be treated as a starting point for understanding the relationship between business and its noneconomic spheres of activities and be helpful to build a coherent system of goals, values and rules of conduct for companies. Sustainable development allows to look at business organization from long term perspective (as a business contribution to future generations). This is confirmed even in new sustainable development goals announced in 2015. The goals are set for the next 15 years and aim at ensuring prosperity for all. To achieve 17 goals (196 targets) the tight cooperation with all sectors is needed. Business partners will play crucial role in e.g. climate action, responsible production and consumption, sustainable living in cities, ensuring decent work and economic growth or innovation and infrastructure. To make it possible the changes of current business models need to be introduced. It is all not about the process of planning and setting operational goals but deeper analysis of opportunities and risks that may cause the problem of continuity and sustainability or other significant is-

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2 Resolution adopted by the General Assembly on 25 September 2015
3 UN Sustainable Development Goals, September 2015
sues affecting the stability of organizations. It requires in many cases far-reaching transformations including an approach to stakeholder management, strategy planning or KPIs. The concept of sustainability from business perspective is helpful in finding the equilibrium for the economic, social and environmental development. This is the reason why the term sustainable business model is more often used. Sustainable business models are oriented on the way to achieve business goals by respecting different values. Practical solutions in this respect are rather impressive. Business may implement different concepts and techniques which improve its environmental or social performance. Companies decided to what extent the concept will be adopted and used by them. There are many different factors that play a role in making final decisions like e.g. pressure of customers and tightening the law moving in the direction of adjusting regulations to actual and future societal and environmental challenges like e.g. low-carbon economy.

Business adapts available solutions to its business models to build a competitive advantage on such elements as: alternative forms of exchange, environmental excellence or high social standards. Some practical examples will be presented in the paper.

2. CONCEPTS WHICH SUPPORT SUSTAINABILITY

There are many economic and managerial concepts and theories which support the development of the concept of sustainability. They all underline the role of complex social relationships and issues of environmental management. The focal point of this concept is the problem of the business on society and environment as well. The concept of stakeholder management was the groundwork for the development of an approach taking into account the various stakeholders as important partners of organizational success. It shows the diversity and complexity of business relationships and indicates the need of taking into account the decisions and activities of the company as those stakeholders that are not directly related to business transactions but may have an impact on the success or failure of the market like potential customers or the public opinion. Companies which are aware of needs and expectations of their stakeholders and recognize the realm of non-economic relationships can better respond to emerging challenges in this area.

The concept of Corporate Social Responsibility (CSR) seems to be equally important. The main idea of CSR is the analysis of environmental and social impacts and the way in which companies respond to them in consideration of different stakeholders. The concept of social responsibility, despite the historically different roots, is often identified, especially by business, with sustainable development. CSR contributes the achievement of

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5 Framework UN Conference (UNFCCC).
10 Guidance on Social Responsibility, ISO 26000
Business models based on sustainable development. It gives space for planning and implementation of different activities aimed at the society and the environment. An awareness of social responsibility among organizations gives the opportunity to build mutually beneficial relations and implement the strategies and projects aimed at reduction of the negative impact on environment.

Business ethics, in turn, induces the use of moral values in making all business decisions. Ethical behavior applies to all levels of organization. The minimum and starting point is complying with the provisions of the law. Ethics describes an important area directly related to the social norms and support to establish a framework for the desired and acceptable business behavior. In this regard it assists the concept of sustainable development paying attention to the need of taking responsibility, intergenerational justice, respect and honesty.

The concept of shared value (Shared Value Creation/ Multiple Value Creation) may be a staple for sustainability complex structure. It is assumed that the company seeks to maximize the positive values (that benefit the widest range of stakeholders) and minimizes the negative (avoiding the creation of products or taking actions that are not beneficial from the point of view of stakeholders) using the win-win strategy. Multiplying values is also the domain of social economy. It is an economic order in which the economic operator pursues economic objectives while fulfilling a social mission. It is heavily focused on the social sphere of sustainable development. In this spirit, companies may also develop social innovations to address the specific problem of social or environmental issues. Firms achieve economic benefits while serving society by improving the quality of life (cheap diagnostic tests, solutions to increase security in the cities and on the roads, solutions for people with disabilities, etc.).

An important concept is the circular economy aimed at reducing the negative impact on the environment and the design of products and services come from recycling, upcycling and using methods of improving environmental conditions. It is worth mentioning other solutions serving environment like e.g. environmental life cycle assessment, cleaner production and voluntary standards and initiatives such as ISO 14001. The table presents the impact of these concepts on business decisions.

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Table 1. Sustainability related concepts and their impact on business decisions

<table>
<thead>
<tr>
<th>Concept</th>
<th>Impact on business decisions</th>
</tr>
</thead>
</table>
| Stakeholder Management Concept      | - including needs and expectations of different groups of stakeholders  
- shareholders are one of key groups of interested parties not the most important  
- economic profits must be considered equally with social and environmental  
- win-win strategy as a basis for business operation |
| Corporate Social Responsibility (CSR) | - social engagement  
- positive impact on environment is a part of business operations  
- improving social and environmental conditions in the -  
- whole supply chain as one of business challenges |
| Business Ethics                      | - moral judgement of decision making process  
- individual responsibility of managers and consequences of their decisions are considered  
- final decision depends on values |
| Shared/Multiply/Integrated Value Creation | - win-win strategy as a basis for business operation  
- the whole life cycle is analyzed  
- company is treated as one (not the most important) link in the whole value chain  
- the idea of positive values maximization (avoiding any kind of hurt to all groups of stakeholders) |
| Social Economy                       | - inclusion of vulnerable social groups as employers  
- social goals equally important like economic goals  
- alternative way of competitive advantage on the market  
- profit maximization including social needs and expectations |
| Circular/Closed Loop Economy         | - the whole life cycle of products is analyzed  
- recycling and upcycling are very important elements of products’ strategies  
- social and environmental criteria of products are taken into consideration on strategic level |
| Cleaner Production                   | - pollution prevention and environment friendly solutions are priorities |
| LCA                                  | - building transparency in a whole supply chain |

Source: Own elaboration

The list presented above is not complete and definitely closed. It only shows the range of possible strategies, directions and principles that may be taken into consideration in designing and implementing sustainable business models.

3. SUSTAINABLE BUSINESS MODELS

Business models may be defined as “a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm.”16 They are aimed at answering some crucial questions such as: Who is the custom-

er? And what does the customer value? How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost? Business models cover two spheres: the first is operations and related resources, the second is about created and captured value. Sphere of activities and resources play a subordinate role in relation to the creation of customer value and its ability to capture and maintain. One aspect of current business models is broadly discussed. It is the place and role of sustainable development in today’s business. The inclusion of issues related to sustainability to business models helped shape a concept of sustainable business models which may be a new paradigm of modern business management. Sustainable business models “incorporate a triple bottom line approach and consider a wide range of stakeholder interests, including environment and society. They are important in driving and implementing corporate innovation for sustainability, can help embed sustainability into business purpose and processes, and serve as a key driver of competitive advantage.” They are also understood as business models “that create competitive advantage through superior customer value and contributes to a sustainable development of the company and society.”

According to Jonker “a sustainable business model must meet the four following criteria:

- sharing knowledge,
- making connections (sustainability is between companies),
- awareness,
- multiple value creation.”

A need to seek a competitive advantage based on sustainability is the result of the time and circumstances in which contemporary global society exists. “We need business models that operate within planetary limits and are sensitive to their roles as economic, environmental and social linchpins.” Build on this assumption the sustainable business models derive from triple bottom line approach proposed by John Elkington. The traditional business model elements are insufficient to show the full relationships and values that setting the direction of sustainable development in business context (tab. 2).

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18 Brzóska J., Model Biznesowy – Współczesna Forma Modelu Organizacyjnego Zarządzania Przedsiębiorstwem, Organizacja i Zarządzanie Kwartalnik Naukowy 2(6), 2009, p.8
21 Jonker, J., New Business Models, An exploratory study of changing transactions creating multiple value(s), Working Paper, Nijmegen School of Management, Radboud University Nijmegen – The Netherlands 2012,
Table 2. Elements of business models including sustainability issues

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Element and description</th>
<th>Extended meaning including sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td><strong>Value Proposition</strong> - gives an overall view of a company's bundle of products and services.</td>
<td><strong>Multiply Value Proposition</strong> – gives an overall view of a company's benefits provided to the whole society</td>
</tr>
<tr>
<td>Customer Interface</td>
<td><strong>Target</strong> - describes the segments of customers a company wants to offer value to.</td>
<td><strong>Target</strong> – goes beyond the groups of customers and includes all group of stakeholders</td>
</tr>
<tr>
<td></td>
<td><strong>Distribution Channel</strong> – describes the various means of the company to get in</td>
<td><strong>User and other stakeholder friendly channel of distribution</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Relationship</strong> - explains the kind of links a company establishes between itself and its different customer segments</td>
<td><strong>Relationship</strong> – the broad definition of all link between the company and its all stakeholders.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td><strong>Value Configuration</strong> - describes the arrangement of activities and resources</td>
<td>Put attention on value configuration in the sense of environmental and social impact minimization.</td>
</tr>
<tr>
<td>Management</td>
<td><strong>Core Competency</strong> - outlines the competencies necessary to execute the company's business model.</td>
<td><strong>Core Competency</strong> – include also all competencies necessary to cover sustainability issues in business model like e.g. LCA, DfE etc.</td>
</tr>
<tr>
<td></td>
<td><strong>Partner Network</strong> - portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value.</td>
<td><strong>Partner Network</strong> - contains also non-profit organizations and semi-commercial organizations like social cooperatives.</td>
</tr>
<tr>
<td>Financial Aspects.</td>
<td><strong>Cost Structure</strong> - sums up the monetary consequences of the means employed in the business model.</td>
<td>Extended to the social and environmental values of business decisions like e.g. SROI, environmental costs, or CO2 footprint etc.</td>
</tr>
<tr>
<td></td>
<td><strong>Revenue Model</strong> - describes the way a company makes money through a variety of revenue flows.</td>
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</tr>
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</table>


The sustainable business models do not take into account the distinction between business goals and noneconomic goals. All are treated equally as a challenge to achieve to satisfy different market participants. It seems, however, that in practice to achieve sustainability may entail some difficulties and sometimes be considered only as hypothetical concept. This does not mean that companies do not undertake intensified efforts to fulfill the commitment to the concept of sustainable development. Usually, however, each sphere is analyzed separately and competitive advantage is built only on one main dimension. It is much harder to find examples that would show a holistic excellence for sustain-
ability. This is confirmed by the current literature which presents rather the theoretical assumptions of sustainable business models.

One of possible typology of business models including sustainability was presented in the report Model Behavior, 20 Business Model Innovations for Sustainability. The main attention was put on such element as:

- **Environmental impact** (models: Closed-Loop Production, Physical to Virtual, Produce on Demand, Rematerialization)
- **Social impact** (models: Buy One, Give One, Cooperative Ownership, Inclusive Sourcing)
- **Financial innovation** (models: crowdfunding, Freemium, Innovative Product Financing, Pay for Success, Subscription Model)
- **Base of the Pyramid** (models: building a Marketplace, Differential Pricing, microfinance, micro-Franchise)
- **Diverse Impact** (Alternative Marketplace, Behavior Change, Product as a Service, Shared Resource)

The other example of sustainable business models was proposed by Jonker. He distinguished three main models:

- **Sharing** – “Models are based on a variety of collaborations such as sharing people, ideas, equipment, property, data and transport. […] Sharing knowledge and networks also seems to be an important basis for conducting business in a lot of models; it leads to raison d’être and growth. […] Constantly exchanging tangible and intangible things between different parties is the essence of these new business models.”
- **Trading** – models focuses on alternative forms of transaction with associated benefits. Next to the monetary dimension one can distinguish such form of payment like: points, credits or advertisements. They contain the social values of capital, networks and attention as well as sources of the capital being organized.
- **Creating** – based on multiply value creation. It creates the win-win situation for involved stakeholders.

Presented models do not restrict the ability of companies to develop an approach based on sustainability. They are only an attempt to describe the complexity of organizational reality, in which the dominant role is played by alternative methods of exchange, looking at the whole life cycle of a product or generating social value. Therefore instead of the notion of sustainable business models (suggesting sustainability in all dimensions) is more reasonable to define business models that are aware about the sustainability. This approach seems to be a compromise between the need to translate sustainable development for business DNA and the current stage of achievement. The following examples illustrate a possible range of business engagement in improving social and environmental aspects of their business models.

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4. PRACTICAL EXAMPLES OF BUSINESS MODELS INCORPORATING SUSTAINABILITY ISSUES

Presented examples include elements of business models which take into account sustainability issues and in particular elements of business models. Examples were chosen in order to illustrate the theoretical models presented in the previous part of the article. The main attention is put on the approach introduced by Jonker\(^25\) (tab. 3).

Table 3. Examples of business models incorporating sustainability

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>Characteristics of business model</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUD Jeans</td>
<td>The Netherlands</td>
<td>The main idea is to create the product that is environment friendly by closed loop supply chain, recycled and organic materials. The innovative approach is that the consumers do not buy but only lease the product (jeans) by paying some monthly fee. The whole life cycle of products is known and most materials are back to the production process by using the recycling. Next to the alternative form of possessing equally important is water and resources saving and waste reduction. The company pay much attention on environmental aspects and educate about responsible consumption making buying decisions more conscious and sustainable.</td>
</tr>
<tr>
<td>FLOOW2</td>
<td>The Netherlands</td>
<td>Business to business platform of sharing system. Interested companies and institutions may sell or rent their equipment, services, personnel or knowledge. The system aims at minimization of cost by using instead of possessing. It lover the cost of companies and generate the additional turnover. The platform enhance the relationship among enterprises and develop the economic issues based on sustainability.</td>
</tr>
<tr>
<td>Local Farmer</td>
<td>Poland</td>
<td>The local system of production is one of the possibility to improve the environmental and social performance. The idea of Local Farmer is to produce and deliver on local scale to minimize the costs and negative effects related to the transport, storage and indirect links. Moreover the process of production is sustainable in the meaning of amount of pollution and resources used. The distribution channel is based on small local societies what strengthen the relationships.</td>
</tr>
<tr>
<td>Trykot</td>
<td>Poland</td>
<td>The presented business model is based on upcycling process. All materials come from things that are treated in classic definition as waste. Bags are sewn from old bags, curtains or tablecloths. Products are handmade and unique. The company uses the idea of circular economy to build its competitive advantage.</td>
</tr>
<tr>
<td>Badel 1862</td>
<td>Croatia</td>
<td>The traditional business model is filled with the exchange part. It is innovative approach in which cooperating partners can exchange products and services without cash transaction. It assumes the partnership among different companies. This kind of exchange system is especially useful for smaller organizations or organizations that experience some financial problem. In the presented case it was the conscious decision to run business activities based on exchange instead of financial transactions.</td>
</tr>
</tbody>
</table>

\(^25\) Author of the article is a member of the team that took part in international research project aimed at New Business Models initiated by Professor Jan Jonker.
<table>
<thead>
<tr>
<th>Company</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Zipcar</td>
<td>USA</td>
<td>The idea of sharing economy is the main principle for Zipcar. The business model assumes the peer to peer cooperation to reduce the environmental impact. It engages people to resign from the ownership and promote sharing.</td>
</tr>
<tr>
<td>EIREbloc</td>
<td>Ireland</td>
<td>The described company is oriented on the production of pallet blocks from recycled wood. It reverses the waste from saleable and valuable products. The whole processes are closed loop what is in environmental and economic sense. Offered products are approved by EPAL and FSC certification.</td>
</tr>
<tr>
<td>Social Coop-</td>
<td>Poland</td>
<td>The idea of social economy assume the reintegration and return to the labor market of people at risk of social exclusion. The organization has business oriented goals (hostel, catering and canteen) and simultaneously takes care of environment and society (vegan products, social events for local society etc). The difference from the regular business appears when taking into account the way of profit distribution. Some part of profits is reinvested in the organization and development of HR to fulfill the social mission.</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on own research and J. Jonker (ed.), New Business Models across Europe, A database with briefs of current cases, Research Document Nijmegen School of Management, Radboud University Nijmegen 2013

Searching for alternative ways to achieve competitive advantage leads to many new solutions, which at first glance are not attributable to the business sphere. The concept of sustainable development opens up new business opportunities related to the area of innovation and development. The concept of sustainable development gives the possibility to look at the whole system from the perspective of a single organization. Afterthought on strategic approach to plan and implement business activities respecting the real influence it has on society and environment.

The presented short cases demonstrated a variety of ideas which may include the sustainability into business models. It might happen by for example product design, alternative way of transaction or integrated value creation. Business has the ability to generate ideas that, beside the enormous social value, also give tangible financial benefits. Understanding of needs and expectations of stakeholders and results that go beyond the economic equilibrium diagram gives effects in the form of innovative products, alternative means of exchange or strengthening the labor market by social inclusion. It shows the potential of meeting the market need respecting principles of sustainable development. Presented examples are only a part of possible solutions, and do not exhaust the scope and scale of possible range of involvement. There is a need for further discussion about the demarcation for sustainability in business models. The research about the transformation of enterprises in approaches to achieve common goals such as New UN Goals for sustainable development is also planned.

5. SUMMARY

Business plays a crucial role in economy and society. Moreover, as a member of society it has to adapt to changing conditions. Thanks to extensive tools and sources business may support the development of sustainability on local and global scale. The current change is visible in approaches of searching for competitive advantage, building relation-
ship and delivering products that not only meet consumer needs but also create value for the entire society and environment. Business models determine the nature of the business and the way in which it will achieve its goals. The more important seems to be the question of the place and necessity of sustainability in business models the more social and environmental challenges appear. The transformation from the traditional model to a more sustainable one is needed. The topic is very complicated and many questions are still open and will designate directions of discussion among both scientific experts and business practitioners.

REFERENCES

[21] UN Sustainable Development Goals, September 2015
MODELE BIZNESOWE W OPARCIU O ZRÓWNAWAŻONY ROZWÓJ. PRAKTYCZNE PRZYKŁADY

Współczesne przedsiębiorstwa poszukiwując źródeł przewagi konkurencyjnej coraz częściej sięgają po koncepcje, które pozwalają im na szersze niż tylko finansowe czy marketingowe spojrzenie na prowadzoną działalność. Jedną z nich jest zrównoważony rozwój. Koncepcja zrównoważonego rozwoju staje się ważnym elementem debaty nad rolą i miejscem biznesu we współczesnym świecie. W literaturze pojawiają się również inne koncepcje takie jak: społeczna odpowiedzialność przedsiębiorstw, etyka biznesu czy ekonomia społeczna dodatkowo mogą okazać się wparciem dla zrozumienia i przełożenia zrównoważonego rozwoju na potrzeby organizacji biznesowych.

Co więcej przedsiębiorstwa upatrując w zrównoważonym rozwoju szansy biznesowej adaptują jego zasady do swoich strategii i modeli biznesowych. U podstaw zrównoważonych modeli biznesowych leży tworzenie wielu wartości i strategiczne podejście do rozwoju i utrzymania się na rynku. Duże znaczenie ma nie tylko sposób pomnażania zysków, ale również to, jak tworzone i utrzymywane są relacje z interesariuszami a przede wszystkim przełożenie perspektywy długookresowej nad krótkoterminową. Zrównoważone modele biznesowe łączą w sobie wiele koncepcji, które charakteryzują, obok tradycyjnie rozumianego wymiaru biznesowego, wartości społeczne i środowiskowe. Artykuł ma na celu przybliżenie problematyki zrównoważonych modeli biznesowych oraz w szczególności przykładów, które ilustrują jak wyglądać może ich praktyczna realizacja. Wśród opisanych przykładów znalazły się przedsiębiorstwa rozwijające swoją działalność na różnych rynkach.

Słowa kluczowe: zrównoważony rozwój, zrównoważone modele biznesowe, praktyki biznesowe na rzecz zrównoważonego rozwoju, modele biznesowe

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