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### *Corporate Social Responsibility Through Knowledge Management on the Example of IT Products' Sector*

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Społeczna odpowiedzialność biznesu przez zarządzanie wiedzą na przykładzie przedsiębiorstw sektora  
produktów informatycznych

**Key words:** corporate social responsibility, knowledge management, knowledge communities, eco-value, social exclusion (technological)

**Słowa kluczowe:** społeczna odpowiedzialność biznesu, zarządzanie wiedzą, wspólnoty wiedzy, eko-wartość, wykluczenie społeczne (technologiczne)

**JEL code:** M14

#### **Introduction**

Identifying, in a way, corporate business responsibility, with self-eco-development, respecting and promoting the principles of the concept of social good in a long-term (strategic) perspective, when economic and environmental effectiveness of ventures, and thus sustainable development is taken into consideration, the way the concept is implemented by IT sector enterprises characterised by innovativeness resulting from the nature of the sector ought to be focused on. Functioning in network relationships with a predominant position of the promoter/leader of the studied sector and the manager of key resources in the relationships, global organisations of systemic IT products, provide partners with network tools for application and support for corporate social responsibility. They also establish their position on the basis of eco-values created in partnership relations. The way in which the concept

of corporate business responsibility is implemented by studied enterprises has a dual nature because of its business and social dimension that is accompanied by knowledge diffusion. This is the subject of interest of the author of the study. The paper is focussed on selected areas and tools.

## 1. Corporate social responsibility through sustainable development

The present period in economy is the time of continuous social and economic changes. Economic and financial crisis has not been finished yet and efforts are constantly taken to reduce at least the causes of the crisis, while generating consumers' aspirations, at the same time, without sufficient support for them from the banking system. The situation is even more difficult because of growing social inequalities, increasing imbalance in economic development of countries and disturbed greening of activities it is accompanied by. In this situation, sustainable development that refers to continuous development and eco-development must be mentioned. It is a concept in economics that assumes the level and quality of life on the level as guaranteed by civilizational development in a particular time [Kristjanson 2006; Cash et al. 2003]. The idea of sustainable development is summarised by the first sentence of the WCED (the World Commission on Environment and Development, also called the Brundtland Commission) published in 1987 – "Our Common Future". The content of the report suggests that civilizational level that has been reached can be maintained on condition of appropriate management in the sphere of economy, environment and social well-being.

The concept of sustainable development is gaining special importance in the period of knowledge society and knowledge economy where knowledge is the reason and a driving force for comprehensive development of individuals and the whole economy [Roblek 2014]. In this context, the notion of sustainable development in business environment is often approached as a synonym for behaviours associated with success and innovativeness<sup>1</sup>, often of eco-friendly nature in relationships with various groups of stakeholders in the process of formation of values in IT environment. Promoting, self-involvement and enabling operating in accordance with the concept of sustainable development is the expression of implementation of the concept of corporate social responsibility (CSR) [D'Amato et al. 2009].

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<sup>1</sup> Compatibility of smart development and sustainable development found its reflection in the works of the European Commission that indicated three priorities in the document entitled *Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth*: 1) smart development: development of knowledge and innovation-based economy; 2) sustainable development: support for economy efficiently using resources, that is more environmentally-friendly and more competitive; 3) development favouring social inclusion: support for economy of high level of employment, ensuring social and territorial coherence [*Europe 2020: ...*, 2010].

## 2. Research methods

The aim of the article is to define the category of CSR, in relation to firms' balanced development concept, which occurs as a theoretical gap, at least so far, in Polish literature. Author has tried to define the business model of CSR's realisation, in subjective and functional terms, with respect to specificity of researched sector, which is treated as a cognitive gap. The cognitive and application goals were achieved by creation of eco-innovative business model, with four sub-systems in a subjective approach. The methods of conceptual research and qualitative empirical research (case study) are applied in the paper<sup>2</sup>. The paper also includes the analysis of the literature of the subject, and research based on secondary and primary sources (Table 1).

Table 1. Basic information about conducted research

Specification	Characteristic features
research technique	critical analysis of the literature and journals, analysis of webpages, analysis of sponsored interviews, direct interviews
sample selection	purposeful selection of typical entities
sample size	5 leaders of computer sector
	200 companies / cooperants / suggested selection
	over 20 sector webpages
geographical range	global range
time range	2000–2016

Source: Author's own study.

## 3. The social responsibility business model in the light of sustainable development of IT firms

In the network structures of IT sector, the company/companies (network core, promoter of network relationship), cooperants (entities of expanded network core and network circle, possibly potential participants) and customers are the pillars of the social responsibility business model, in subjective and functional approach.

According to the concept of sustainable development, the character of activity of the network of entities of the sector of IT products is expressed in creation of the network position through involvement in ventures favouring social and environmental well-being in strategic perspective and also promoting IT solutions for eco-business customers. In the social responsibility business model, in the light of sustainable

<sup>2</sup> Application of the method seems justified because of the following facts: 1) research concerns contemporary, dynamic phenomena and knowledge about these phenomena that is being created; 2) it concerns the study of real contexts of these phenomena at significant vagueness of borders between their contexts and the very phenomena; 3) the subject of research is too complicated to explain the cause and effect relationships with the use of the method of survey or experiment [Perry 2001].

development concept, each stage of the eco-value creation process is accompanied by knowledge diffusion.

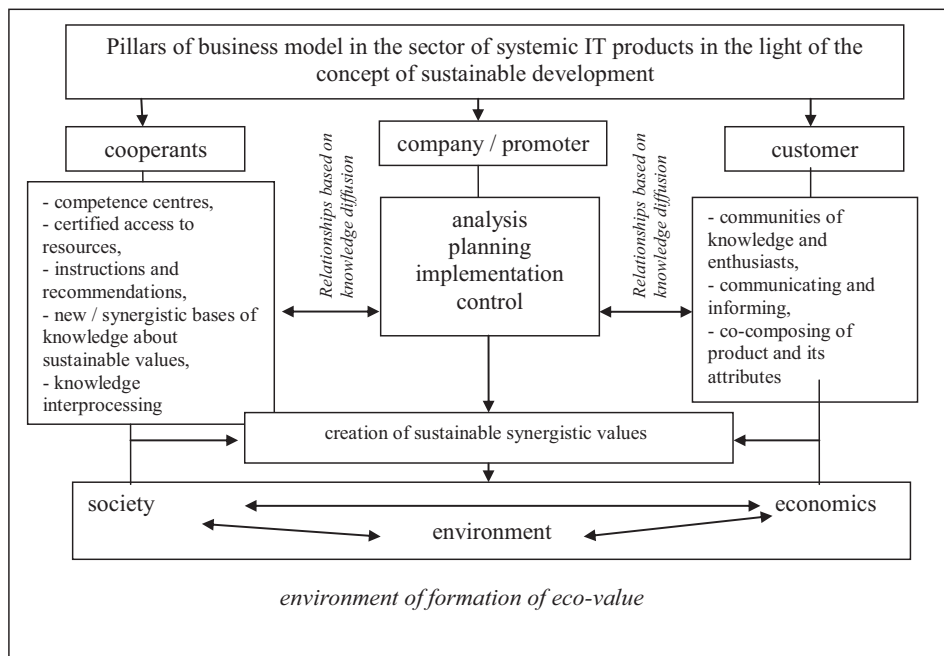


Figure 1. Pillars of the social responsibility business model in IT sector in the environment of eco-value creation

Source: Author's own study.

In the subsystem of relationships with cooperant, knowledge is generated in the so-called competence centres, through interactions between the entities, most often on the principles of qualified access to promoter's knowledge, according to possessed certificates. In the subsystem of relationships with customer, knowledge diffusion may serve generating solutions, while considering the prosumer customer behaviour, for example, in the so-called communities of knowledge and enthusiasts.

In each of the subsystems, promoted knowledge about engagement in social and environmental well-being shall constitute the grounds and determinants of the position in the relationship. These considerations suggest a dual or even integral way of business model implementation which takes into account corporate social responsibility expressed in the light of the concept of sustainable development of three groups of entities in network structure. These ways are expressed by three multi-instrument functional sub-areas: knowledge diffusion in communities of practice, counteracting social (technological) exclusion and environment protection.

### 3.1. Social responsibility by knowledge diffusion in communities of practice

Studied companies of IT products build communities of sustainable values both on the level of relationships with the subsystem of business partners and with customers (Table 2).

Table 2. Competence centres and communities of IBM, Microsoft, Intel HP and Apple

Firm	Centres and communities	
IBM Innovation Centre (IIC)	43 global centres, 29 centres in the region	147 specialist communities, e.g. IBM PureData-Enzee Community, IBM PartnerWorld Community, Industry Solutions Business Partner Community and others
Microsoft Partner Membership Centre	Forms of communities: Partner Network Support, Partner Support Community, Microsoft Community Connections and others	
Intel IT Centre	Communities: Intel Support Community, IT Peer Network, Maker Community	
HP Community	Communities: HP Enterprise Business Community, HP Discussion Boards, HP Developer Community and others	
Apple Group	Apple User Group Support Team (group managers), Apple User Group International Regional Liaisons (regional group managers), Apple User Group Pro and Online Group (managers of cooperants) and others	Apple Support Communities; 63 Global, Mac User Group, knowledge communities

Source: Author's own study on the basis of: [www.ibm.pl](http://www.ibm.pl), [www.microsoft.pl](http://www.microsoft.pl), [www.intel.pl](http://www.intel.pl), [www.apple.com](http://www.apple.com) (access: 08.09.2014, 01.02.2017).

Promoters' competence centres [Sztangret 2016, pp. 99–110] of analysed network relationship are more or less formalised structures all over the world that ensure competence and equipment support to partners but also customers. The centres allow experiencing, but also engaging in the process of formation of the value that is expected from the point of view of promoted sustainable values.

### 3.2. Social responsibility by the counteracting technological (social) exclusion

Counteracting technological (social) exclusion, through a broad range of operations activating the customer on the market of IT products is, among others, another way of creation of sustainable values in network relationships of IT sector entities (Table 3).

### 3.3. Nature protection as a tool in well-being strategy

Nature protection is expressed here in the principles of sustainable development in relationships with business partners, the system of operations in the sphere of global management of the environment, and in operational actions in the subspheres of climate, prevention against environment pollution, and in saving resources (Table 4). Described actions aim at broadly perceived integration of business entities and community for the purpose of creation and promotion of values that are positive from the point of view of public good in a long-time perspective. The actions are

Table 3. Tools of sustainable development in the subsystem of counteracting technological (social) exclusion

Intel	Microsoft	HP	Apple	IBM
1/ Moving Young Minds; Education towards the future"; "Innovative Odyssey"; "Intel Education" Teachers Engage Community 2/ "Open Curriculum"; Intel Academic Community Intel Education Solutions Blog 3/ Ventures of Intel International Science and Engineering Fair (ISEF), International fairs of science and technology 4/ "Designing and discovering" 5/ Communities: Intel Open Port IT Community, Intel Embedded Community, Intel Software Network Blogs, Intel Support Community Intel AppUp(sm) Center 6/ Wired Ethernet Community Intel® Healthcare Community The Server Room Community Intel® vPro™ Expert Center	1/ European Advisory Initiative 2/ Subprograms: IDE ITeraz Europa (E-Now Europe) Entrepreneurship Academy 3/ Partnership for the Future, Microsoft Unlimited Potential, Microsoft Educator Network, Microsoft Safety and Security Centre, Skype in the Classroom, IT Academy, Microsoft Innovation Centres 4/ Microsoft Imagine Cup, TEALS (Technology Education and Literacy in Schools), YouthSpark Summer Camps, Kodu Game Lab 5/ Microsoft Academic Council 6/ Innovation Centres (entrepreneurship incubators) 7/ Partnership for Technology Access 8/ (TKN) Network (Knowledge Tele-Centres Network)	1/ HP Centre of Digital Community 2/ International Institute of Technology Hewlett-Packard (IIT HP) 3/ "Modern Visions of Education"	1/ Mac Users Group 2/ "Voluntarism" 3/ Events: Apple Products Review and Party, Southeast Creative Summit, Hands-On Learning With SMUG and MIAMUG, iMovie 11, Summer Party in the Park and Photo Walk 4/ Apple Users Group	1/ ibm.com Community 2/ IBM Client Success Essentials 3/ World Community Grid 4/ Watson Ecosystem Community 5/ Watson University Partnership 6/ IBM Academic Initiative and Collaboration 7/ University Research and 8/ IBM University Relations Programme 9/ Students for a Smarter Planet Programme 10/ IBM Global Entrepreneur Program 11/ IBM initiatives and grants

Source: Author's own study on the basis of: [www.ibm.pl](http://www.ibm.pl), [www.microsoft.pl](http://www.microsoft.pl), [www.intel.pl](http://www.intel.pl), [www.apple.com](http://www.apple.com) (access: 08.09.2014., 01.02.2017).

completed with initiatives undertaken for environment protection by the companies of the sector of IT products.

Table 4. Catalogue of principles and ventures in the sphere of “nature protection”

Principles of sustainable development in relationships with business partner	Global system of environment management	Operational actions in the subspheres
1/ co-creation of products with the possibility of their life-cycle extension, their re-use or recycling, 2/ co-creation of products that are safe in the period of their storage as waste, 3/ co-creation of products the components of which come from recycling, 4/ co-creation of energy-saving products, 5/ co-creation of resource-saving products of reduced negative influence on the environment, also in the sphere of packaging and finishing elements.	1/ corporate policy and inter-organisational principles in the sphere of eco-development, 2/ responsibility for the environment and community integration, 3/ trainings and instructions for partners, 4/ monitoring and measurement of effectiveness of application of the system of global environment management in the network of partners, 5/ volunteering for environment protection.	1/ climate protection <ul style="list-style-type: none"> <li>- energy saving, and reduction of CO<sub>2</sub> emission,</li> <li>- use and exploitation of renewable energy sources,</li> <li>- reduction of emission of the so-called greenhouse gases,</li> <li>- support for alternative employment and tele-work,</li> <li>- effectiveness of logistic activities,</li> <li>- promotion of energy-saving products, services and solutions,</li> </ul> 2/ preventing environment pollution, <ul style="list-style-type: none"> <li>- promotion of re-use, reduction in use and recycling,</li> </ul> 3/ saving water resources and raw materials, <ul style="list-style-type: none"> <li>- eco-design of packaging,</li> <li>- eco-policy towards raw materials.</li> </ul>

Source: Author's own study on the basis of: [www.ibm.pl](http://www.ibm.pl), [www.microsoft.pl](http://www.microsoft.pl), [www.intel.pl](http://www.intel.pl), [www.apple.com](http://www.apple.com) (access: 08.09.2014, 29.01.2017).

Peculiarities of principles and ventures in the sphere of nature protection concern co-creation eco-value in knowledge diffusion circumstances, by using high-involved IT solutions.

#### 4. Eco-innovative business model of IT sector entities in the light of their social responsibility

These three aforementioned spheres of activity of IT sector entities show the nature of eco-innovative business model in subjective terms, which is expressed by integration of subsystems of eco-innovations of technological, social, organisational and institutional nature [Kronenberg and Bergier 2010, pp. 294–296] (Figure 2).

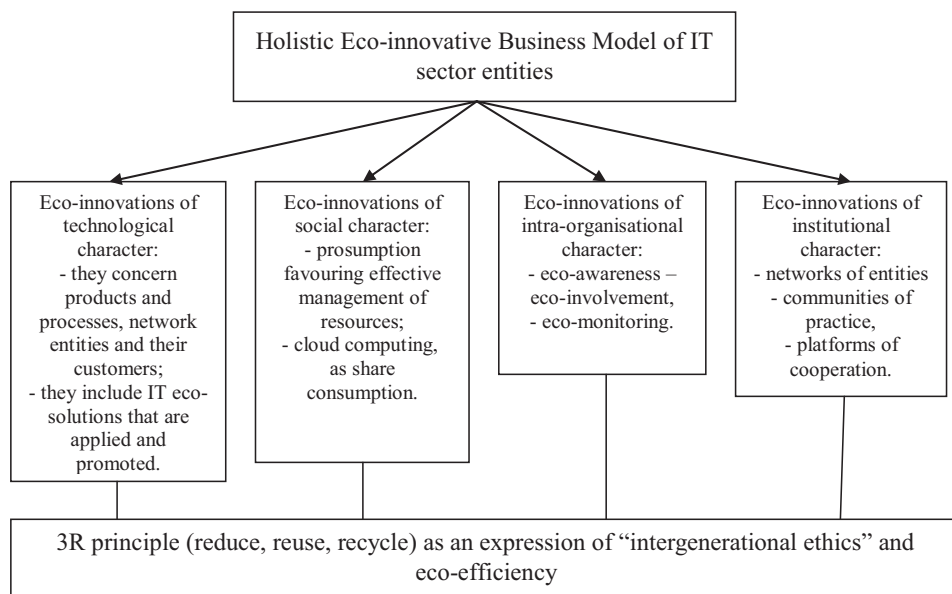


Figure 2. Eco-innovative business model of IT sector entities, the subject approach

Source: Author's own case study.

## Conclusions

Therefore, studied enterprises, in their social responsibility, perform the role of the so-called promoter of relationships based on principles of sustainable development, in the system of relationships with entities representing the environment of network cooperants and customers for creation of eco-value, and conditions of balance between social and environmental well-being, as well as economic result in a long-time perspective. The way in which the concept of corporate social responsibility of IT sector entities is implemented has eco-innovative, at least dual and multi-instrument, nature. Strategic benefits are perceived in the synergy of operation of network entities and, in many cases, harmonisation of actions of enterprises in network relations in the sphere of creation of eco-values for stakeholders thanks to diffusion of knowledge of these entities, among others. Multidimensional nature of implementation of the concept of corporate social responsibility in marketing dimension concerns, among others, simultaneous application of the concept of knowledge-based relationship marketing, integral marketing, as well as social marketing representing sustainable development of these entities.



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## Corporate Social Responsibility Through Knowledge Management on the Example of IT Products' Sector

The article identifies and describes the way in which the concept of corporate social responsibility is implemented in the group of selected IT sector entities applied in response to conditions of the environment of functioning. It is perceived through the prism of management of partners' knowledge in the eco-system of relationships of sample enterprises, IT sector leaders and their cooperants, including customers. The problem gained special significance in the dynamic environment of functioning of enterprises, determined by social changes (according to the paradigm of the so-called decent society, intergenerational ethics and share consumption), economic changes (economics of moderation, deconsumption as the response to excessive consumerism) and environmental changes (ecologisation and eco-effectiveness in opposition to "exploitation of resources without limits").

### Spoleczna odpowiedzialność biznesu przez zarządzanie wiedzą na przykładzie przedsiębiorstw sektora produktów informatycznych

W artykule zidentyfikowano i scharakteryzowano sposoby realizacji koncepcji społecznej odpowiedzialności biznesu w grupie wybranych podmiotów sektora IT, stosowane w odpowiedzi na warunki środowiska funkcjonowania ujętego przez pryzmat zarządzania wiedzą partnerów w ekosystemie relacji przykładowych przedsiębiorstw, liderów sektora IT i ich kooperantów, w tym klientów. Problem ten zyskał szczególnego znaczenia w dynamicznym otoczeniu funkcjonowania podmiotów warunkowanym zmianami społecznymi (zgodnie z paradygmatem tzw. godnego społeczeństwa, etyki międzypokoleniowej, share consumption), ekonomicznymi (ekonomii umiaru, dekonsumpcji jako odpowiedzi na nadmierny konsumpcjonizm), środowiskowymi (ekologizacji i ekoefektywności, w opozycji do „eksploatacji zasobów bez granic”).