



POZNAŃ UNIVERSITY  
OF ECONOMICS  
AND BUSINESS

# INNOVATION MANAGEMENT: Research Aspects

Edited by Barbara Borusiak & Marcin Lewicki



INNOVATION MANAGEMENT:  
Research Aspects

---

Edited by Barbara Borusiak and Marcin Lewicki



# INNOVATION MANAGEMENT: Research Aspects

---

Edited by

Barbara Borusiak and Marcin Lewicki

Editors:  
Barbara Borusiak, Marcin Lewicki

Reviewers:  
Magdalena Florek, Jan Mikołajczyk

Cover design:  
Izabela Jasiczak



The publication financed by Norwegian funds and domestic funds:



Free publication

Copyright © Poznań University of Economics and Business, Poznań 2016

ISBN 978-83-7986-104-0  
ISBN 978-83-7986-107-1 (e-book)

Publishing house:  
Bogucki Wydawnictwo Naukowe  
ul. Górna Wilda 90, 61-576 Poznań  
tel. 61 833 65 80  
e-mail: [biuro@bogucki.com.pl](mailto:biuro@bogucki.com.pl)  
[www.bogucki.com.pl](http://www.bogucki.com.pl)

Printing and binding:  
Uni-druk  
ul. Przemysłowa 13, 62-030 Luboń

# Contents

<i>Anna Strychalska-Rudzewicz, Adam Rudzewicz</i> The Elements and Manifestations of the Creative Economy and its Impact on Innovation . . . . .	9
<i>Adam Dymitrowski</i> The Nature of Business Model Innovation . . . . .	19
<i>Mariya Peneva</i> Countryside Consumption and Eco-innovations in Farming – Case Study from Bulgaria . . . . .	29
<i>Jakub Berčík, Elena Horská</i> The Use of Innovative Research Tools in Retail Store Environment. . . . .	37
<i>Barbara Borusiak, Bartłomiej Pierański</i> Offer Personalization as an Aspect of Retailers’ Innovation . . . . .	49
<i>Barbara Kucharska</i> Virtualization of Retailers’ Behaviour Towards Customers as a Manifestation of Innovativeness in Retail Trade . . . . .	61
<i>Marcin Lewicki</i> Social Media as a Tool for Creating Value for Customers in Electronic Commerce . . . . .	71
<i>Anna Roth</i> Monitoring of Web Content as a SaaS Service that Effectively Corresponds to the Current Needs of the Market . . . . .	83
<i>Małgorzata Grzywińska-Rapca, Mariola Grzybowska-Brzezińska</i> Socio-Economic Determinants of Online Consumer Spending . . . . .	93
<i>Wiesław Ciechomski</i> Prosumption as an Impetus for Changing Consumer Behaviour . . . . .	101
<i>Piotr Maicki</i> Online Financial Services as an Opportunity for Foreign Currency Borrowers . . . . .	111
<i>Kirill Rozhkov, Natalya Skriabina</i> In-Class Focus Groups with Local Representatives as a Tool for Strategic Thinking. . . . .	121
<i>Peter Šimončič, Roderik Virágh, Filip Tkáč</i> The Use of 3D Design in Marketing – Research and Educational Aspects . . . . .	129



# Foreword

Innovation is one of the most intensively studied issues today, arousing the interest of scientists from a number of disciplines, including biological, chemical, physical, technical and medical sciences, as well as many others. It is also a subject of research by economists, who on the one hand, perceive innovation as a necessary condition for the functioning of modern economies; and on the other, as a source of competitive advantage for companies, cities, regions and countries. From the point of view of management experts, innovation is an essential element of business management. According to P. Drucker, the enterprise that does not innovate inevitably ages and declines.

Innovation management comprises the introduction of innovative products into a company's offering, implementing new production methods and new ways of providing services, as well as constructing innovative business models for both individual companies and entire sectors.

This monograph discusses the issue of innovation management from a macro-, meso- and micro-economic perspectives. The opening chapter by Anna Strychalska-Rudzewicz and Adam Rudzewicz presents a macroeconomic view and refers to creativity as the most significant prerequisite of innovation. The chapter delineates the elements of the so-called creative economy according to a concept proposed by R. Florida, as well as presenting the results of correlation analyses between the Global Creativity Index, the Global Innovation Index, and the Knowledge Economy Index.

The second chapter, by Adam Dymitrowski, discusses the nature of innovative business models, which is undoubtedly a complex and multidimensional issue. Based on an analysis of the literature, the author attempts to deconstruct its elements.

The author of the next chapter, Mariya Peneva, presents the results of research on eco-innovation implemented in Bulgarian agriculture. The reason for this innovative process is a desire to achieve a better quality of life through the production of organic food in a manner which is natural, which does not harm the environment, and which complies with the principles of sustainable development.

Subsequent chapters deal with the retail sector, including both traditional and online retailing. For example retailers are increasingly implementing new solutions based on neuromarketing, automatic personalization and *big data*, as well

virtual and augmented reality technologies. The management of these innovations in traditional bricks-and-mortar retailing is discussed in chapters authored by Jakub Bercik and Elena Horska, Barbara Borusiak and Bartłomiej Pierański, as well as Barbara Kucharska.

The chapter by Marcin Lewicki is devoted to the use of social media for e-commerce. The author points to the current and potential significance of social media in creating value for customers.

The subject of the next chapter, written by Anna Roth, is online content monitoring, which is a Software as a Service solution. Such services provide companies with selected information with regard to online discussions relating to companies and their products on social networks.

E-commerce is also the focus of the next chapter, written by Małgorzata Grzywińska-Rapca and Mariola Grzybowska-Brzezińska. The authors examine the socio-economic determinants of the level of consumer spending on digital purchases. The author of the next chapter, Wiesław Ciechomski, discusses the concept of prosumption, which consists in the involvement of end buyers in the process of product design. This is a rapidly growing trend, increasingly used by companies which implement innovative management practices in terms of product manufacturing.

The next chapter, written by Piotr Maicki, discusses online financial services. In addition to the being unquestionably innovative, these services have another valuable attribute: their services and the manner in which they are offered help solve the problems faced by foreign currency borrowers, and particularly by people who took out mortgages in Swiss francs.

The authors of the next chapter, Kirill Rozhkov and Natalya Skriabina, devote their discussion to the methods of formulating innovative strategies for local government units.

The final chapter, written by Peter Šimončič, Roderik Virágh and Filip Tkáč, concerns the use of 3D technology, in particular 3D scanners, for research and teaching.

This monograph was created as part of the project “Innovation Management – an English-language Master’s programme supported by modern information technologies,” number FSS/2014/HEI/W/0095, conducted by the Poznań University of Economics under the Measure: Development of Polish Higher Education Institutions, funded by the Foundation for the Development of the Education System, a coordinator of the Scholarship and Training Fund.

# Chapter 1

## The Elements and Manifestations of the Creative Economy and its Impact on Innovation

Anna Strychalska-Rudzewicz, Adam Rudzewicz

**Anna Strychalska-Rudzewicz:** Assistant Professor in the Department of Business Economics, University of Warmia and Mazury in Olsztyn

**Adam Rudzewicz:** Assistant Professor in the Department of Market Analysis and Marketing, University of Warmia and Mazury in Olsztyn

**Abstract:** This article discusses the components of the Global Creativity Index: talent, technology and tolerance, which form an environment for the development of the so-called creative economy. Next, it examines correlations between the Global Creativity Index, the Global Innovation Index, and the Knowledge Economy Index. The research approach is based on a diagnostic test designed to demonstrate the relationship between creativity and innovation on an international perspective. The scientific cognitive problem is explicatory in nature, seeking answers to questions about the manifestations of the creative economy and their impact on innovation. The paper fulfils descriptive, explanatory and utilitarian functions, suggesting the economic benefits that creative societies can achieve.

**Keywords:** economy, creativity, innovation

**JEL classification:** O31

### Introduction

Creativity is a key factor in the innovation process, which consists in materializing an idea into a market product (Bieniok, 2014). In science, there is no universal definition of creativity although this concept has been present in economic sciences probably since the time of the classic of innovation Joseph Schumpeter

(1995), who emphasized pioneering, personal imagination and entrepreneurial vision. Currently, creativity pertains not only to individuals but to entire groups of human beings. This transition from understanding creativity as an individual feature of a person to analysing it at the level of larger groups which interact with each another is a new quality regarding research on creativity. Such an approach has a relatively short tradition, having emerged approximately 30 years ago (Karwowski, Pawłowska, 2009). However, researchers are becoming increasingly convinced of the decisive influence the environment has (the region, the whole country) on the creativity of individuals and the ability to create innovation.

The aim of this article is to present the components that form an environment for the development of the so-called creative economy, as well as presenting the results obtained by different countries in the world in areas related to the existence of the creative economy. This is based on the elements giving rise to the so-called creative economy proposed by R. Florida (2010). The paper also examines correlations between the Global Creativity Index, the Global Innovation Index and the Knowledge Economy Index. Data on innovation was obtained from the World Bank and organizations involved in constructing the Global Innovation Index, and data relating to the creativity index was obtained from a report by R. Florida and others (Florida et al., 2015).

## 1.1. The creative economy and the industrial economy

Mass production in large enterprises and the associated high level of automation can inhibit employees' creativity. The drawbacks of a deepening division of labour had already been pointed out by Adam Smith (2007), who believed that a worker deprived of the possibility of demonstrating ingenuity and even a little creativity at work, who for many hours automatically performs a set of manual actions, becomes "as stupid and ignorant as it is possible for a human creature to become." Also, extensive bureaucratic procedures often served to inhibit creativity, both on the shop floor and in research and development laboratories. Florida (2010) believes that the United States has denied creativity to ordinary employees. Also, for example, in a number of services at the lowest level today (such as fast food chains), the work is completely "taylorized" because creativity is replaced by templates of words and gestures.

The origins of the development of the post-industrial economy, characterized by the very great importance of human creativity, dates back to the 1970s. At that time, an increasing decline in industrial activity could be observed in developed countries (deindustrialization). The share of manufacturing in GDP, which grew steadily in the first half of the twentieth century, began to fall rapidly from a level of almost 50% to below 20%. Manufacturing and services started to converge and permeate each other (tertiarization of the economy), which meant that a product had to be complemented by an appropriate service package (for example, a PC with software tailored to an individual consumer's needs). Some traditional

industries and types of economic activity went into decline (for example such industries as mining, steel and shipbuilding). Advanced technologies and services started to gradually replace the Ford and Taylor paradigm characterized by mass production and consumption.

Centralized corporate structures were increasingly being replaced by network structures based on cooperation (e.g. clusters). In time, the term “new economy” became synonymous with the socio-economic and technological changes shaping the face of the global economy in the 21<sup>st</sup> century (*Od gospodarki przemysłowej...*, 2016). In such circumstances, knowledge replaces labour and capital as the primary source of social welfare, and creativity becomes the primary driver of economic growth (Florida, 2010). Many authors (Toffler, 1985; Drucker, 1994; Mikula et al., 2007) believe that the post-industrial age has now transformed into the knowledge age, otherwise known as the age of a knowledge-based economy (KBE), and the organizations of the industrial age have transformed into organisations in an age of knowledge. In an age of the knowledge society, it is knowledge that is the key resource, not work, materials or capital. A social order emerges in which knowledge-based inequality is a major challenge. The large, inflexible enterprises of the industrial age have begun to transform into organizations which foster innovation among the staff.

The pace of economic development and transformation is uneven throughout the world. In Poland, the process of transforming the country in accordance with the new age of knowledge, and thus developing a creative knowledge-based economy, is slower than in the United States and older European Union countries. The Knowledge Economy Index developed by the World Bank Institute places Poland in penultimate place in a group of eight transition economies. Modifying the methodology in a way which takes into account the importance of the individual pillars for creating a knowledge-based economy, Piech (2004) concluded that in terms of the development of a knowledge economy Poland effectively takes last place among the eight countries in transition.

## 1.2. Technology, talent and tolerance as elements of creativity

Many scientific disciplines study creativity. The psychology of creativity is concerned with the conditions for the emergence of creative solutions. The literature on management emphasizes the positive impact of creativity on the results of organizations. Currently, researchers are looking into the factors which can increase the efficiency of creativity management (Amabile et al., 1996). Also, in economics, one can observe an increased interest in the processes of creativity in whole nations (Cortright, 2001). Creativity and people’s creative output are values which determine the cultural development of countries.

Florida (2010) identified three components of creativity: technology, talent and tolerance. In his view, these are the key drivers of economic growth.

Technology is measured by the concentration of innovation as well as the concentration of industries using the latest technologies. The technology indicator includes the following measures:

- expenditure on research and development (R&D);
- share of GDP spent on R&D;
- number of patented innovations per capita (a measure of innovation).

Talent is the creative capital of people working in the creative professions. The talent indicator includes the following measures:

- the share of workers employed in the creative sector;
- the share of the adult population with higher education.

Tolerance is a specific climate which attracts the most creative people. The tolerance indicator includes the following measures:

- the level of openness to racial and ethnic minorities;
- the level of openness to people of different sexual orientation.

Tolerance means openness towards people who often do not “fit in” with traditional standards of conduct, appearance or sexual orientation. Such environments have “low entry barriers” for homosexuals, artists or immigrants. The level of tolerance is reflected in such components as the Gay Index (the proportion of homosexuals), the Bohemian Index (the proportion of artists), the Melting Pot Index, (the proportion of foreign-born people), and the Racial Integration Index. This approach meets with a certain degree of irritation on the part of some academics and employees of high-tech industries. Unnecessarily, because the tolerance indicator does not imply that innovators are artists, gays or immigrants. It only refers to the fact that members of the creative class choose places that are open and tolerant of diversity.

Putnam (2008) observed a dangerous decline in social capital in the US, which is manifested by a decrease in trust and civic attitudes as well as weakening social bonds. However, Florida (2010) argues that this is not a problem as regards creativity. His research shows that representatives of the creative class prefer quasi-anonymity and are reluctant to live in environments with strong social bonds. The creative class prefer weak rather than strong social bonds, opting for the possibility of “being oneself” and “living one’s own life.” Too strong social bonds could hinder entering a community, resulting in the exclusion of newcomers. They can also inhibit innovation. Weak bonds, on the other hand, help to quickly and seamlessly accept new people and ideas, which is essential for creativity. This assertion is confirmed by analyses conducted by Cushing (2001), which show that a high level of social capital is negatively correlated with technological development and the rate of economic growth. Florida et al. (2002) found that regions at lower levels in the innovation index were characterized by higher levels of social capital. This, however, does not exclude the existence or need for creating strong bonds within a group of people who are closest.

### 1.3. Creativity indicators in international perspective

The following presentation of creativity indicators is based on *The Global Creativity Index 2015* (Florida et al., 2015). In 2015, the best results in terms of expenditure on R&D were recorded for Israel, Finland, South Korea, Sweden, Japan, Denmark, Germany, the United States, Austria, Australia and Canada. The poorest results were obtained by the majority of African countries, India, Thailand, Burma, Bolivia and Peru. Taking into account the number of registered patents per capita, the following countries scored the highest: South Korea, Japan, Singapore, Hong Kong, the United States, New Zealand, Australia, Canada, Israel, Germany and China. The lowest rates of patents per million people were recorded in most African countries, as well as Bolivia and Nepal. Overall, the best results in the area of technology were obtained by the following countries: South Korea, Japan, Israel, the United States, Finland, Australia, New Zealand, Germany, Singapore, Denmark, Sweden and Switzerland. The lowest rates applied to most African countries, Kazakhstan, Uzbekistan and Bolivia. The technology indicator for Poland is similar to the levels in other Central European countries.

The creative class includes people employed in the fields of science and technology, engineering, art, culture and entertainment, media, management, education, healthcare and law. In the world, there are considerable differences between countries in terms of the level of employment in the so-called creative industries, ranging from 1% to 50% of employees. In 18 countries, the proportion of creative workers exceeds 40% of the workforce. The best results, taking into account the number of people employed in the creative sector, were obtained by Luxembourg, Bermuda, Singapore, Switzerland, Iceland, Sweden, Holland, Canada and the United Kingdom. Russia occupies the 19<sup>th</sup> place, with 39% of employees in the creative industries. Finally, the highest rates of people with higher education were recorded for South Korea, the United States, Finland, Slovenia, Belarus, Australia, Spain, New Zealand, Iceland and Cuba. It should be emphasized that there is considerable variation between countries as regards the structure of education for their citizens, especially at university level.

The highest rates of tolerance were recorded for Canada, Iceland, New Zealand, Australia, the United Kingdom, Holland, Uruguay, Ireland, Norway and Sweden. Poland belongs to the group of countries with a relatively low rate of tolerance, which also includes Lithuania, Ukraine, Russia, India, Saudi Arabia, Egypt and Turkey. The lowest levels in the tolerance indicator were noted for Sudan, Congo, Libya, Nigeria and Bolivia.

The three indicators, technology, tolerance and talent, combine to create the Global Creativity Index (GCI). The best results in terms of the global index were obtained by the following countries: Australia, the United States, New Zealand, Canada, Denmark, Finland, Sweden, Iceland, Singapore, Holland, Switzerland, Germany, the United Kingdom, France and Spain. The lowest levels in the creativity index were recorded for such countries as Sudan, Congo, Bolivia, Libya, Namibia and Turkmenistan. Poland has an average value in the creativity index, which is connected with its relatively low level of tolerance.

## 1.4. The creativity index and the innovativeness of countries

Innovation is the basis for building a knowledge-based economy. The construction of an economy in which a key role is played by knowledge and innovation is becoming the main challenge for countries seeking to achieve a high level of development and competitiveness in the 21<sup>st</sup> century. In the past, countries and regions competed through their material resources. This is now being replaced by competing through non-material resources, in particular through knowledge and technology (*Gospodarka oparta na wiedzy*). The Knowledge Economy Index (KEI) measures the potential of a country to make an effective use of knowledge, indicating its willingness to implement the model of a knowledge-based economy (KBE). This index is based on the average values of four indicators, which are the pillars of the knowledge economy: an economic incentive and institutional regime; innovation; the education of human resources; and information and communication technologies. The methodology for measuring a knowledge-based economy has been proposed and published by the World Bank (*Knowledge Economy ...*). The Pearson correlation coefficient relating to the strength of the relationship between the Global Creativity Index (GCI) and the Knowledge Economy Index (KEI) is 0.91, which indicates a very high correlation that is statistically significant ( $p < 0.001$ ). The coefficient of determination, otherwise known as R-squared, which is a measure that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable, is 0.83. This indicates that the creativity index significantly affects the potential of a country as a knowledge economy (Figure 1).

Countries with the highest creativity index (Australia, the United States, New Zealand, Canada, Finland, Sweden, Holland, Norway, the United Kingdom, Germany and Switzerland) have a high potential for the development of a knowledge economy (KEI above 8). Slightly lower values in the creativity index are noted for Japan, Hong Kong and South Korea, although the KEI is still high. The results for Poland in terms of both indicators are similar to the results obtained by Russia and Bulgaria.

The Global Innovation Index (GII) is constructed by several organisations<sup>1</sup>. To measure this 84 elements are taken into account, which relate to two principal factors: innovative potential and measurable results (*The Global Innovation Index 2015*). The Pearson correlation coefficient relating to the strength of the relationship between the Global Creativity Index (GCI) and the Global Innovation Index (GII) is 0.83 (Figure 2), indicating a very high correlation that is statistically significant ( $p < 0.001$ ). The coefficient of determination is 0.69 in this case.

The highest values for the GII (over 50) were obtained by Switzerland, Sweden, the United Kingdom, Holland, the United States, Finland, Germany, Hong Kong, New Zealand, Australia, South Korea, Canada and Japan. Countries with

---

<sup>1</sup> The World Intellectual Property Organization, Cornell University, INSEAD, Booz and Company, the Confederation of Indian Industry, and Huawei.

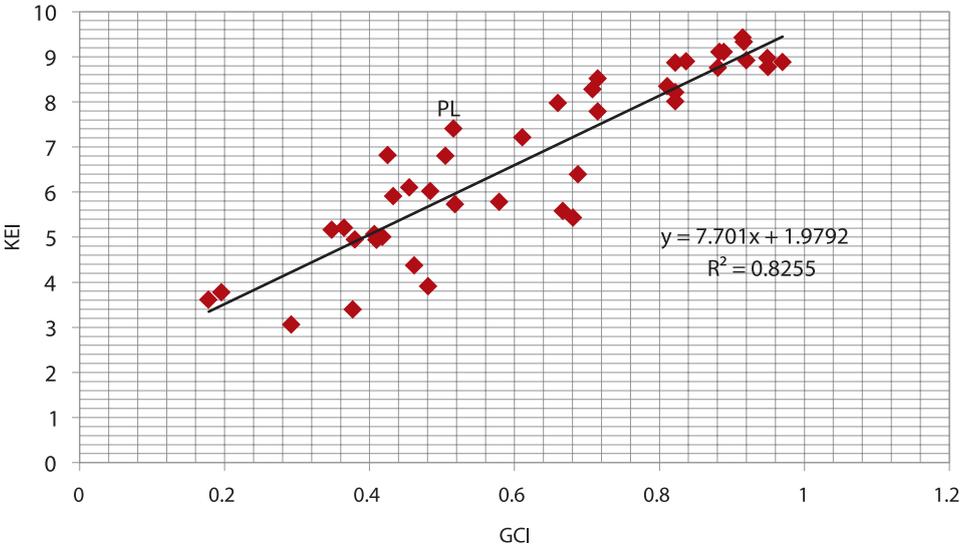


Figure 1. Correlation between the Global Creativity Index and the Knowledge Economy Index.

Source: Own compilation.

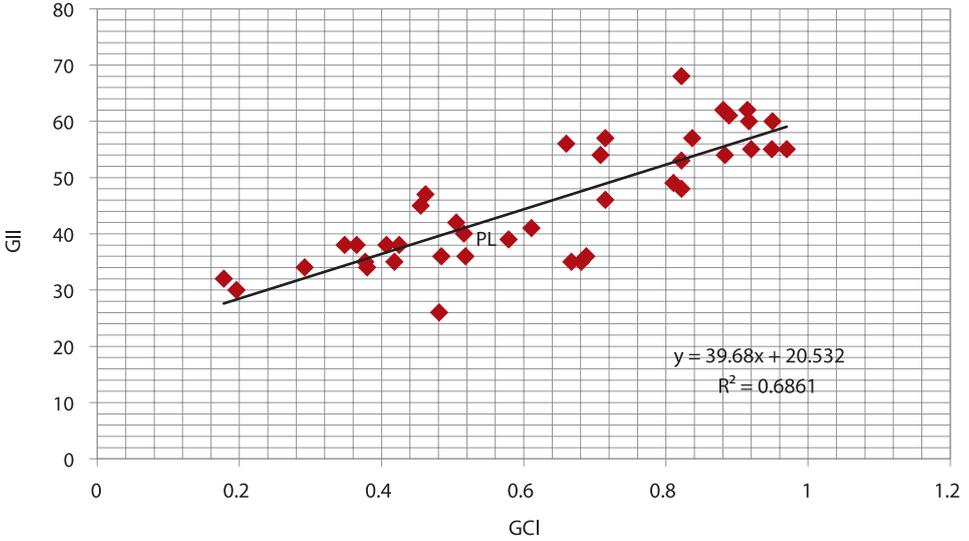


Figure 2. Correlation between the Global Creativity Index and the Global Innovation Index.

Source: Own compilation.

a slightly lower innovation index (around 40) include Slovenia, China, Malaysia, Spain, Italy, Bulgaria, Chile and Poland.

## Conclusions

The article discussed the elements contributing to the so-called creative economy and examined the correlations between the Global Creativity Index, the Global Innovation Index and the Knowledge Economy Index. The analyses demonstrated a very strong correlation between an economy's level of innovation and the creativity of the nation's society. Countries with a high tolerance of foreign cultures and a highly-educated society employed in creative industries are characterized by a higher level of innovation. Expenditure on technology and research in creative societies yields above-average benefits in the form of increased innovation and the development of a knowledge economy.

## References

1. Amabile T.M., Conti R., Coon H., Lazenby J., Herron M. (1996), *Assessing the work environment for creativity*, *The Academy of Management Journal*, 39/5.
2. Bieniok H. (2014), *Kreatywność jako źródło nowoczesności i rozwoju przedsiębiorstw*, *Zeszyty Naukowe Politechniki Śląskiej, Seria: Organizacja i Zarządzanie*, 73(55).
3. Cortright J. (2001), *New Growth Theory, Technology and Learning. A Practitioners Guide*, *Reviews of Economic Development Literature and Practice*, No. 4 (<http://philo.at/wiki/images/Growth-theory-cortright.pdf>; accessed: 11.03.2016).
4. Cushing R. (2001), *Creative Capital, Diversity and Urban Growth*, Unpublished manuscript, Austin, Texas, December, quoted in: R. Florida (2010), *Narodziny klasy kreatywnej*, Wyd. Narodowe Centrum Kultury.
5. Drucker P.F. (1994), *The Age of Social Transformation* (<https://docs.google.com/file/d/0B-5-JeCa2Z7hdOpSYkV6S3FwOTA/edit>; accessed: 12.03.2016).
6. Florida R. (2010), *Narodziny klasy kreatywnej*, Wyd. Narodowe Centrum Kultury.
7. Florida R., Cushing R., Gates G. (2002), *When Social Capital Stifles Innovation*, *Harvard Business Review*, August, 18, 8.
8. Florida R., Mellander Ch., King K. (2015), *The Global Creativity Index 2015*, Martin Prosperity Institute.
9. *Gospodarka oparta na wiedzy* (<http://europejskiportal.eu/gospodarka-oparta-na-wiedzy/>; accessed: 15.03.2016).
10. Karwowski M., Pawłowska K. (2009), *Style przywództwa w motywowaniu do twórczej pracy*, *Bezpieczeństwo Pracy. Nauka i Praktyka*, 4(451).
11. *Knowledge Economy Index (KEI) 2012 Rankings* (<http://siteresources.worldbank.org/INTUNIKAM/Resources/2012.pdf>; accessed: 12.03.2016).
12. Mikuła B., Pietruszka-Ortyl A., Potocki A. (red.) (2007), *Podstawy zarządzania przedsiębiorstwami w gospodarce opartej na wiedzy*, Difin, Warszawa.
13. *Od gospodarki przemysłowej do gospodarki kreatywnej – historia przełomu cywilizacyjnego*. Wywiad z dr. Krzysztofem B. Matusiakiem ([http://www.pi.gov.pl/PARP/chapter\\_86197.asp?soid=BDE179DD5F7F4649B16A6429B4DE5503](http://www.pi.gov.pl/PARP/chapter_86197.asp?soid=BDE179DD5F7F4649B16A6429B4DE5503); accessed: 13.03.2016).
14. Piech K. (2004), *Gospodarka oparta na wiedzy jako etap przemian społeczno-gospodarczych krajów transformacji systemowej*, [in:] J. Nowakowski, A. Skow-

- roniek-Mielczarek (eds), *Gospodarka, przedsiębiorstwo i konsument a wyzwania europejskie*, SGH, Warszawa.
15. Putnam R. (2008), *Samotna gra w kręgle*, Wydawnictwa Akademickie i Profesjonalne, Warszawa.
  16. Smith A. (2007), *Badania nad naturą i przyczynami bogactwa narodów*, PWN, Warszawa.
  17. The Global Innovation Index 2015 (<https://www.globalinnovationindex.org/user-files/file/reportpdf/GII-2015-v5.pdf>; accessed: 15.02.2016).
  18. Toffler A. (1985), *Trzecia fala*, PIW, Warszawa, p. 33.



# Chapter 2

## The Nature of Business Model Innovation

Adam Dymitrowski

**Adam Dymitrowski:** Assistant Professor in the Department of International Marketing, Poznań University of Economics and Business

**Abstract:** Today, in the face of fierce and aggressive rivalry, it is necessary to stand out from one's competitors. One tool which can enable a company to achieve a favourable market position is innovation. Because it is quite common for firms to undertake efforts to create innovations, there is a need for even more special activities. It seems that adopting innovation at the level of the business model is a method which guarantees success. Therefore, the aim of the paper is to assess the nature of business model innovation. This has been achieved by means of literature review. There are several practical implications of the paper. It provides a useful tool for companies which can help them analyse their market behaviour in order to become more competitive. Moreover, it emphasises the great importance of business model innovation for the stable development of economy and society.

**Key words:** innovation, business model, value creation

**JEL classification:** M10, M31, O31

### Introduction

In a rapidly changing economic environment it is necessary to adapt flexibly to changing business conditions. This fact is reflected in modifications in the current operational methods of enterprises that look for new tools to build a competitive position in the market. One of these tools may be business model innovation that radically changes the method of delivering value to customers. The aim of this article is therefore to determine the nature of business model innovation, which was done using a critical analysis of the existing literature on the subject

as a research tool. Despite numerous literature references dealing with business models, there is a considerable research gap relating to innovative business models. The nature of the concept is complex and multidimensional, and knowledge about it will enable the more effective functioning of companies. Due to the limited knowledge of the research subject, this publication is just a first step in the process of understanding it.

## 2.1. Defining a Business Model

The literature on the subject referring to the issue of business models has a varied character. The existing publications can be divided into two groups. The first one relates to the period of the 90s of the 20th century and focuses on the nature of e-business activity. The second group, concerning the beginning of the 21st century, refers to general ways in which businesses function, including high-tech companies (Cortili, Menegotto, 2010, p. 2). However, there is a significant research gap in the perception of business models through the lens of innovation. Therefore, it is necessary to determine the reciprocal relations existing between these concepts. To do this, it is necessary to first define the nature of a business model.

A detailed definition was presented by P. Timmers (1998) who proposed three statements to describe it. The first one says that this concept is a product, service or information flow system, identifying relevant economic operators and defining their roles. The second characteristic is the potential benefit for businesses resulting from the application of the business model concept. The third statement refers to the description of the sources of income provided for in the concept. This approach exposes the measurable and tangible nature of the business model concept, which is exemplified in a product or information system.

A more concise approach to the subject of research was presented by D. Collico (2001) who described the business model as a way of doing business, allowing the company to earn income and survive. The second definition, like the first one, draws attention to the fact that the purpose of creating a business model is to provide benefits for the company. To make this possible, it is necessary to find answers to questions about the characteristics of the recipients to whom a business model is proposed, the method of offering them new value, and developing methods to generate profits which compensate for the actions taken (Magretta, 2002).

Following this line of argument, D.J. Teece (2010, p. 172) argues that the business model is a model mechanism used by the company for creating, delivering and capturing value. The most important issue in this regard is to determine how to deliver value to customers, getting them to pay for value, and the conversion of payment into profit. According to Teece (2010, p. 173) the business model expresses the logic of creating and delivering solutions for customers by the company. It also describes the architecture of revenues, costs and profits for a company providing such value. This view is shared by H. Chesbrough (2010) who

highlights the importance of creating, capturing and delivering value to the customers of the organization.

Another perspective is represented by G. George and A.J. Bock (2011, p. 99) who describe the business model as entrepreneurial thinking, being the result of a market opportunity that can be exploited through actions leading to objectives pursued by means of implementing the relevant activities and an investment made by the company.

A similar view is shared by T. Mets (2012, p. 175) who believes that the business model describes how a company converts its input (e.g. in the form of resources) into the value it delivers to customers and generates income. This approach is reminiscent of the process nature as to the issues in question in which we can distinguish several stages, such as the creation of value and its commercialization, allowing the development of the firm.

The business model is also viewed as a process by R.B. Bouncken et al. (2015, p. 250). According to this author it is a strategic and dynamic process of value creation, taking place in a network of relationships, described by means of linking a product or service with a corresponding group of customers using selected methods of communication and distribution.

Another definition which refers to the environment in which an enterprise operates was proposed by C. Zotta and R. Amit (2013). They argue that a business model includes both the actions taken by the company and its business partners, as well as the mechanisms that connect them into a coherent whole. In a similar vein A. Harima and S. Vemuri (2015, p. 33) argue that the business model describes how to create value within an organization by focusing on the various elements of the enterprise and the relationships that occur between these elements.

Given these definitions a certain regularity can be observed. Initially, the business model was described as a product or service. However, over time, that perception has changed in favour of a “business method”. Modern definitions also draw attention to the important context of the environment in which the enterprise operates. In particular, the external entities that together can create the value offered to its customers.

To comprehensively determine the nature of the business model, it is necessary to describe and analyse its components.

## 2.2. Business Model Components

J. Linder and S. Cantrell (2001) distinguish seven components of the business model. These are as follows: value proposition, pricing system, distribution system, revenue generating model, system for creating commercial relations via the Internet, organizational form, and commercial process. The large number of highlighted items illustrates the complex nature of the business model.

Moreover, R. Casadesus-Masanell and J.E. Ricart (2009, p. 2–3) indicate that the decisions taken by the company (e.g. purchase contracts, location of branches,

etc.) are also an indispensable part of the business model. The decisions concern three areas: the adopted policy operations, capital, and management. Adopting a particular decision brings about some consequences which can be divided into flexible and rigid ones.

This perspective is consistent with the factors proposed by J. Linder and S. Cantrell (2001). Every decision actually refers to different dimensions of business activity, and it is reflected in the appropriate formation of individual business activity components, such as the distribution system, organizational form, etc.

The proposal regarding business model elements by B. Mahadevan (2000) is even more calculable, as it refers to specific measures. He distinguishes the following: the value stream, revenue stream, and logistic stream. The adoption of the nomenclature referring to a dynamic approach to business activity shows that the company is continually subject to influences that affect its functioning.

Hamel G. (2000) speaks in a similar manner of the business model components, which he divided into four groups as follows: customer logic, strategy, resources, and network.

This approach is also close to the perspective of G. George and A.J. Bock (2011, p. 99) who distinguished the following: resource structure, transactive structure, and value structure. On the other hand, according to T. Mets (2012, p. 171), the components of the business model refer to the areas of product, market, and operations.

A slightly different approach is promoted by C. Baden-Fuller and S. Haefliger (2013), as well as C. Baden-Fuller and V. Mangematin (2013), who argue that among the elements of business models there are value creation and value capture. These relate to the identification and involvement of customers, as well as interconnections in the chain of value creation and monetization. In order to analyse the nature of the business model it is useful to cite the approach of A. Onetti et al. (2012) who propose the use of three terms. These are focus, modus, and locus.

Decisions in the dimension of “focus” concern the allocation of resources to various activities undertaken by the company which makes it possible to specify its value proposition. In this way, the business model determines the role of each activity and the extent of the value creation chain. The decisions in the “locus” dimension refer to the place of actions. This means the determination of industrial or geographical location for activities. In this regard, the business model defines the physical configuration of links in the value creation chain. Decisions in the field of “modus” are reflected in the methods of management. For instance, which activity should be carried out within the company, and which should be commissioned to an external entity. The degree of company integration relating to production and purchases, the internal structure of production (labour, capital or technology based) and the architecture of the external relationship network are determined by decisions connected to the character of the business model.

In the context of numerous studies that refer to actions taken by a company, in order to distinguish elements of the business model one should consider

the differences in the concepts of business model and business strategy. Many authors (Hedman, Kallinge, 2001; Shafer et al., 2005) indicate that the business model should not be seen in terms of strategy. D.J. Teece (2010) believes that the business model is a more general concept than business strategy, which should be treated as complementary. R. Casadesus-Masanell and J.E. Ricart (2010) argue that the business model is the result of the strategy adopted by the company. Similarly, Magretta J. (2002) and W. Jansen et al. (2007) think that in certain cases the strategy may be part of the business model, because both concepts refer to some common areas. According to George G. and A.J. Bock (2011, p.102) a business strategy is a dynamic set of initiatives, activities and processes, while the business model is a static configuration of organizational elements and activities. The business model results from the identification of an opportunity, whereas the strategy is a response to competitors’ activity or a changing environment.

The author of this article believes that business model is a more complex and broader concept than business strategy. This statement is essential in any further discussion, because it will enable the identification of business model elements. To do this, it is necessary to define the concept of value. Taking into account the aforementioned definitions of business model, value is the starting point in the process of creating a business model.

Value consists of both business value and customer value. Business value is defined as the difference between the market price and the cost, while customer value is the difference between the willingness to pay and the market price. The relationships described are presented in Table 1.

Taking into account the information given in Table 1, there are two ways to increase value. These are lower costs or increased willingness to pay. Both methods are associated with benefits for the company. Lowering the cost lets the company keep a greater part of profits. A higher willingness to pay results in an increase in prices; which consequently also affects the amount of profit.

Measures taken to increase value draw on specific strategies implemented by the enterprise (dynamic approach). In contrast, the business model is based on the value that is specified using fixed limits, which are the willingness to pay and costs (static approach). The distinction between the concepts of a model and a strategy that has been mentioned earlier in the article seems to be correct.

Table 1. The Nature of Value.

	business value	customer value	value
			↑ value increase
willingness to pay			
market price			
costs			
			↓ value increase

Source: Own elaboration.

In order to determine the nature of the business model, it is therefore necessary to refer to the dimensions of willingness to pay and costs. Adopting such a perspective is an innovative method allowing the identification of the actual components of the business model. The proposal presented in this document helps to systematize the business model components that are found in the literature on the subject.

Willingness to pay results from the perception of a company or product by a potential customer. It is also the result of the attractiveness of an offer available on the market. However, this factor is reduced to a certain mode of perception. The costs are the result of several factors. These are mainly the resources available to the company. The efficiency of resource use (which determines costs) affects some soft factors, such as knowledge and the experience the company has. Due to the similar nature of particular soft factors they are collectively regarded as company skills. Moreover, at a time when the company does or does not possess a limited amount of resources, it may obtain them from companies operating in its business environment. For this to happen, it is necessary to have good quality relations, because the cost of buying resources depends on the relations which also affect the efficiency of using resources.

Summing up the discussion on business model components, they can be subdivided into two groups (related to perception and costs). These are the perception of the company, the perception of the product, as well as resources, skills and relations. The proposed components seem to be adequate because they have been identified from the perspective of key importance for the subject of the research, i.e. values. They are complementary to the propositions put forward in the literature.

Identification of the business model elements makes it possible to determine the nature of business model innovation.

### 2.3. Business Model Innovation

Despite the rapidly growing literature on business model innovation, understanding the nature of the concept and its impact on how an enterprise operates is still quite difficult (Casprini, 2015, p. 182). In this regard it may be helpful to look at the information included in the previous parts of the study, in particular, the identified elements of the business model. Every time a manager makes changes in the current activity, to a certain extent he or she also modifies the existing business model (Casprini, 2015, p. 186).

In the studies relating to this issue one will often come across a common theme expressed by many authors. For example, according to A.J. Bock et al. (2012, p. 290) business model innovation is “a fundamental rethink of the firm’s value proposition in the context of new opportunities”. Similarly, according to C. Markides (2006) “business-model innovation is the discovery of a fundamentally different business model in an existing business.” In this context, we should also

recall the opinion of R.B. Bouncken et al. (2015, p. 250) who state that business model innovation plays an important role that involves creation, or reinvention, of the business itself.

Using the ideas presented previously the author attempts to create his own definition of business model innovation. It is a new or significantly modified way of creating and delivering value for the fulfilment of the needs of both the company and the customer, which is reflected in five areas in which an organization operates: the perception of the company, the perception of the product, as well as resources, skills and relationships. This attempt achieves the goal of the article, which was to determine the nature of business model innovation. A graphic form of the concept of business model innovation is presented in Figure 1.

Figure 1 shows that the occurrence of business model innovation depends on changes in the elements of the existing business model. Using the definition of innovation proposed in the Oslo Manual (OECD, Eurostat, 2005, p. 48–52) the change should be new to the company implementing it. So, it is enough for the company to introduce a new or significantly changed method of creating and delivering value, which it has not applied yet; although it is not imperative that the method should be new to the whole market or industry. This fact implies that in the case of new enterprises, the applied business model should also bear the signs of innovation, because it has not been used previously by the company.

One of the characteristic features of business models is looping (Casadesus-Masanell, Ricart, 2009, p. 4). This means that changing one component may necessitate modifications in others, and thus increase the innovativeness of the solution applied. One example is establishing a new business relationship that

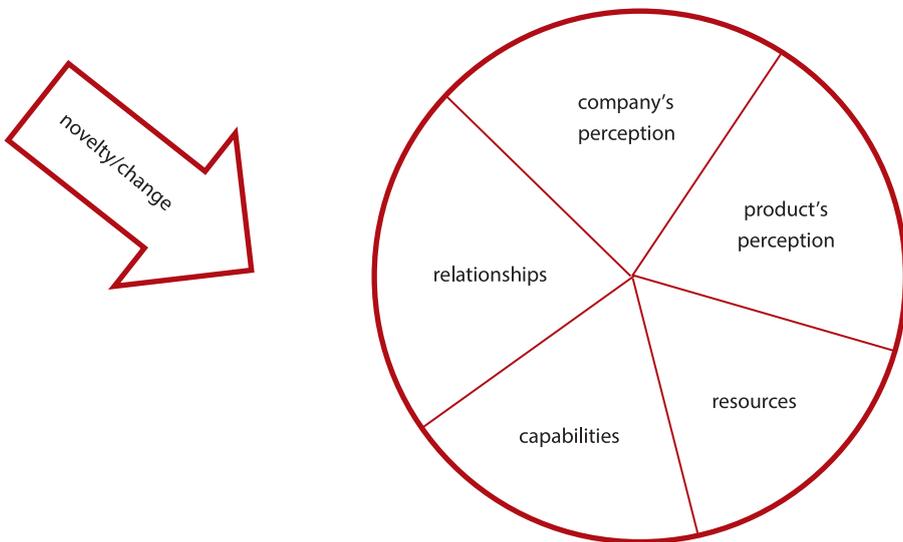


Figure 1. The Nature of Business Model Innovation.  
Source: Own elaboration.

will eventually lead to cooperation in brand strategy (co-branding), and thus will affect the perception of a product.

Some authors (Lindgardt et al., 2009) indicate that in order to acquire the features of innovation, a business model requires the simultaneous change of at least two components in the current business model, which will guarantee that value is delivered in an innovative way. According to the author of this paper such an assertion seems to be unfounded, because the essence of innovation is a change that is qualitative rather than quantitative. Modifying only one item can provide sufficient added value to an offer and deliver this new value to the market. Moreover, in the case of certain types of markets or industries, a simultaneous modification in several components of the business model is extremely difficult or even impossible. For example, in many statistical studies in Poland a company is regarded as innovative if it has introduced at least one innovation. This fact shows how complicated the process of implementing innovation is. Therefore, it is sufficient to modify only one component of the business model for a company to be recognized as innovative. The business model can be a new form of innovation that is able to build a more sustainable competitive advantage in comparison with other forms of innovation (Chesbrough, 2007).

This fact stems from the character of an innovative business model, which is a generator of new value. Innovation in a business model can be introduced either by a company with long economic experience or an entity just starting its economic operations.

According to C. Zott and Amit R. (2013), using an innovative business model has a positive impact on the performance of an enterprise, and by providing a competitive advantage it also enhances the dynamics of internationalization. This view is also shared by other scientists (Chesbrough, 2010; Casadesus-Masanell, Ricart, 2011; Casprini et al., 2014) according to whom business model innovation should be seen as a new tool in building a company's competitive advantage.

E. Bucherer et al. (2012) identify two reasons for the positive impact of business model innovation on the competitive position of a company. Firstly, a simultaneous change in various elements of a method for providing value is costly and time consuming. When a company creates only one type of innovation (e.g. organization) this can be copied by competitors with greater ease because they do not need to change their existing business models. However, in the case of creating innovation in the business model, it is much more difficult for other companies to imitate changes because they have to make not one, but many modifications. Secondly, a new business model should address many needs of the company and be compatible with its long-term development strategy, organizational culture and key business skills.

## Conclusions

Business model innovation is a complex and multidimensional concept. This is due to the complicated nature of doing business which affects many areas of economic life; including economics, management, psychology, etc. Understanding the real nature of business model innovation, however, is crucial for a company. It seems that in the face of increasing competitive pressure, creating traditional forms of innovation is not sufficient to achieve success.

This article is only a starting point for the discussion on the role of business model innovation nowadays. In particular, it seems desirable to determine whether the proposed nature of the research subject can be applied in the analysis of behaviour patterns of companies from different industries and countries. What is also interesting is the relationship that occurs between potential business model innovation and the process of internationalization. Therefore, in the future the author intends to make further efforts to explore the field of knowledge of business model innovation.

## References

1. Baden-Fuller C., Haefliger S. (2013), *Business Models and Technological Innovation*, Long Range Planning, 46, 6.
2. Baden-Fuller C., Mangematin V. (2013), *Business Models: a challenging agenda*, Strategic Organization, 11.
3. Bock A.J., Opsahl T., George G., Gann D.M. (2012), *The effects of culture and structure on strategist flexibility during business model innovation*, Journal of Management Studies, 49, 2.
4. Bouncken R.B., Muench M., Kraus S. (2015), *Born Globals: Investigating The Influence Of Their Business Models On Rapid Internationalization*, International Business & Economics Research Journal, 14, 2.
5. Bucherer E., Uli E., Oliver G. (2012), *Towards systematic business model innovation: lessons from product innovation management*, Creativity and Innovation Management, 21, 2.
6. Casadesus-Masanell R., Ricart J.E. (2009), *Company Strategy: Business Model Reconfiguration for Innovation and Internationalization*, Working Paper, No. 807, IESE Business School, University of Navarra.
7. Casadesus-Masanell R., Ricart J.E. (2010), *From strategy to business models and onto tactics*, Long Range Planning, 43, 2.
8. Casadesus-Masanell R., Ricart J.E. (2011), *How to design a winning business model*, Harvard Business Review, 89, 1/2.
9. Casprini E. (2015), *Business model innovation: a typology*, Sinergie Italian Journal of Management, 33, 97.
10. Casprini E., Pucci T., Zanni L. (2014), *Business Model shifts: a case study on firms that apply high technology to cultural goods*, Technology Analysis and Strategic Management, 26, 4: 171–187.
11. Chesbrough H. (2007), *Business model innovation: it's not just about technology anymore*, Strategy & Leadership, 35, 6.

12. Chesbrough H. (2010), Business Model Innovation: Opportunities and Barriers, *Long Range Planning*, 43, 2–3.
13. Collico D. (2001), *Internet Business Models*, Working Paper.
14. Cortili M., Menegotto M. (2010), Internationalization and business model decisions: A business case in mobile telecommunication industry, *Università dell'Insubria Facoltà di Economia*.
15. George G., Bock A.J. (2011), The Business Model in Practice and Its Implications for Entrepreneurship Research, *Entrepreneurship Theory and Practice*, 35, 1.
16. Hamel G. (2000), *Leading the Revolution*, Harvard Business School Press, Boston, MA.
17. Harima A., Vemuri S. (2015), Diaspora Business Model Innovation, *Journal of Entrepreneurship Management and Innovation*, 11, 1.
18. Hedman J., Kalling T. (2003), The business model concept: theoretical underpinnings and empirical illustrations, *European Journal of Information Systems*, 12.
19. Jansen W., Steenbakkens W., Jägers H. (2007), *New business models for the knowledge economy*, Gover/Ashgate, Aldershot.
20. Linder J., Cantrell S. (2001), *Changing Business Models: Surveying the Landscape*, Accenture – Institute for Strategic Change.
21. Lindgardt Z., Reeves M., Stalk G., Deimler M.S. (2009), *Business model Innovation. When the Game Gets Through, Change the Game*, The Boston Consulting Group (<http://www.bcg.com.br/documents/file36456.pdf>; accessed: 30.03.2016).
22. Magretta J. (2002), Why Business Models Matter, *Harvard Business Review*, 80.
23. Mahadevan B. (2000), *Business Models for Internet based E-Commerce. An Anatomy*, *California Management Review*, 42, 4.
24. Markides C. (2006), Disruptive innovation: in need of better theory, *Journal of Product Innovation Management*, 23, 1.
25. Mets T. (2012), Creative Business Model Innovation for Globalizing SMEs, [in:] T. Burger-Helmchen (ed.), *Entrepreneurship – Creativity and Innovative Business Models*, InTech, (<http://www.intechopen.com/books/entrepreneurship-creativity-and-innovative-businessmodels/creative-business-model-innovation-for-globalizing-smes>; accessed: 23.03.2016).
26. OECD, Eurostat (2005), *Podręcznik Oslo. Zasady gromadzenia i interpretacji danych dotyczących innowacji*, 3 ed.
27. Onetti A., Zucchella A., Jones M., McDougall-Covin P. (2012), Internationalization, innovation and entrepreneurship: business models for new technology-based firms, *Journal of Management & Governance*, 16, 3.
28. Shafer S., Smith H., Linder J. (2005), The power of business models, *Business Horizons*, 48, 3.
29. Teece D.J. (2010), Business Models, Business Strategy and Innovation, *Long Range Planning*, 43, 2–3.
30. Timmers P. (1998), Business Models for Electronic Markets, *Electronic Markets*, 8, 2.
31. Zott C., Amit R. (2013), The business model: A theoretically anchored robust construct for strategic analysis, *Strategic Organization*, 11, 4.

# Chapter 3

## Countryside Consumption and Eco-innovations in Farming – Case Study from Bulgaria

Mariya Peneva

**Mariya Peneva:** Associate Professor in the Department of Natural Resources, University of National and World Economy in Sofia

**Abstract:** The paper presents countryside consumption initiative which promotes live close to the nature, ecological agricultural production, local products and food consumption. The key factors are eco-innovations in farming models emerged as a result of new form of rural lifestyle: farming undertaken not as a primarily income generation activity, but mostly of environmental concerns, search for healthier consumption and lifestyles and proximity to nature, expecting and promoting new life habits in traditional rural area. The aim of the paper is to focus on rural area, where a new social movement is a carrier of novelty (innovative farming eco-models), which breaks the traditional model of rural life and farming. The paper examines people's consciousness both as producers and consumers, their purposeful behaviour in seeking to change their lives against the challenges of the civilization and its negative impacts on natural resources, referring to the interaction between all the actors concerned. By innovation and reinvention of the traditional agricultural practices the initiative actors restored eco balance of the microenvironment and biological world and found economic viable strategies.

**Keywords:** agriculture, eco-innovation, rural sustainability

**JEL classification:** O13, O31

### Introduction

Last decades a renewed and continuously growing interest has been shown in activities promoting environment-friendly lifestyle, preservation and restoration

of natural heritage and traditions, provision of healthy and locally grown food to the consumers and sharing a lifestyle and farming production methods that treat the environment and the nature in a sustainable way (Peneva et al., 2012). The new models of multifunctional agriculture replace productivist and market-oriented ones, in which consumption drivers co-exist with production, in diversified combinations along rural space (Pinto-Coreia et al., 2014). The paper focuses on rural area, where a new social movement is a carrier of novelty (innovative farming eco-models), which breaks the traditional model of rural life and farming and is oriented towards the nature and ecosystems conservation. It is, also in conformity with EU's 2020 strategy<sup>2</sup> for smarter, more sustainable and inclusive growth which needs innovation to make economy more competitive with more jobs and better life quality. By innovation and reinvention of the traditional agricultural practices the initiative actors restored eco balance of the microenvironment and biological world and found economic viable strategies. The paper studies initiative, named "*Countryside Consumption*", which promotes live close to the nature, ecological agricultural production, local food consumption, where the key factors are eco-innovations (Peneva et al., 2012).

In the paper countryside consumption is understood as a driver of new forms of farm and farmland management grounded on persuasive values and worldview where the countryside is used as a space of consumption. By consumption it is here meant the consumption of the countryside itself, though the dominance of amenity uses, related with landscape appreciation, leisure and recreation and quality of life (Pinto-Correia et al., 2014). It goes beyond the production functions of farming linking diverse stakeholders.

In the scientific literature there is not one and only definition of eco-innovations. In general innovation refers to the change in the way something is done as Carrillo-Hermosilla et al. state that eco-innovation improves environmental performance, in line with the idea that the reduction in environmental impacts (whether intentional or not) is the main distinguishing feature of eco-innovation. (Hermosilla et al., 2010) Other authors relate eco-innovation with the changes in micro level as it is "the production, application or exploitation of a good, service, production process, organisational structure, or management or business method that is novel to the firm or user and which results, throughout its life cycle, in a reduction of environmental risk, pollution and the negative impacts of resources use (including energy use) compared to relevant alternatives" (Kemp and Pearson, 2008). In most cases eco-innovations are defined as innovations that reduce the environmental impact caused by consumption and production activities, whether the main motivation for their development or deployment is environmental or not (Boons et al., 2013) which is the definition applied in the paper.

The paper aims to examine people's consciousness both as producers and consumers, their purposeful behaviour in seeking to change their lives against the negative impacts of human activities on natural resources, referring to the interaction between all the actors concerned.

<sup>2</sup> See: [http://ec.europa.eu/europe2020/index\\_en.htm](http://ec.europa.eu/europe2020/index_en.htm)

The case study is an initiative studied within the EC FP 7 FarmPath<sup>3</sup> research project. The main theoretical framework of the project and respectively of the case study research was based on the multi-level (sociotechnical landscape, regime and niche level) and multi actor perspective of transition studies in a farming context. Sociotechnical landscape forms an exogenous environment (macro-economic and demographic trends, macro-political developments, climate changes, societal values, consumers' patterns etc.) and changes at the landscape level usually take place decades (Geels and Schot, 2010). The regime includes technological developments, infrastructure, techno-scientific knowledge, societal groups and networks, rules and regulations, markets etc. From the perspective of the transition theory the niche (innovation initiative) is itself a novelty and is related to the evolution of the regime to a new state. The emphasis is on the radical changes and the transitions are seen as long-term processes of fundamental change in the joint evolution of society, economy, ecology, culture, technology and institutions through collaboration, linking and alignment. (Elzen et al., 2004, Geels, 2011) Therefore multidisciplinary approach has been followed with the active participation of the stakeholders to reflect different levels and actors. Hereby, processes of interactions between actors – internal and external to the initiative, were analysed based on the evolutionary perspective of innovation conceptualised by J. Carrillo-Hermosilla et al. (2010).

### 3.1. Materials and Methods

The study is undertaken in the Southwest Planning Region (NUTS 2) of Bulgaria. The case study area is presented by one municipality (Svoge which is determined as rural area<sup>4</sup>) and its villages. Documentary analysis and desk research were performed on the contextual analysis and policy related issues. The individual in-depth interviews and focus group discussions were conducted with key informants. The sample is represented by: members of the initiative, followers and supporters including young farmers and new entrants, locals, entrepreneurs, agricultural officers and experts, NGOs and local government representatives.

The survey instrument contained both quantitative and qualitative questions. Quantitative data collected included the size of the farms and their activities, experience in farming, products and quantities obtained, marketing channels and involvement in farming activities. Demographic data, such as gender, age, education, occupation and household revenues were also collected. Qualitative data collected include the type of farming practices used, farmers' perception of the eco-innovation and of the rural lifestyle. Other qualitative questions aim to identify: Who are these farmers/consumers? What are their socio-economics

<sup>3</sup> See: <http://www.farmpath.eu/>

<sup>4</sup> The national definition of rural areas, defines rural areas as municipalities (LAU1), in which no settlement has a population over 30 000 people. This definition has been set under the Rural Development Programme 2014–2020.

characteristics and value orientations? What kind of land management practices do they implement to preserve and maintain the existing biodiversity and habitats; and to satisfy consumers' needs? What kind of strategies and innovation actions they perform, including evaluation of training activities, networking, consumption habits and how their activities has influenced family nutrition, benefits, motivations and future expectations?

### 3.2. The case study area

Southwest Planning Region (regime level) is the most advanced Bulgarian region in terms of economic development due to the presence of the capital city (Sofia, which is also the biggest city in the country). It has the largest economy in Bulgaria according to the official data derived from National Statistical Institute (NSI). It is contributing 47.6% of Bulgaria's Gross domestic Product (GDP) in 2012. It also has the highest GDP per capita of 8 220.6 Euro compared to the country's average 4 785.2 Euro in the same year.

Of all the regions in Bulgaria, the Southwest region contains the largest share of the population of the country. It also has the highest employment rate of 52.7% and only 7.1% unemployment compared to the average of 11.8% for the country in 2013.

The region's economy relies primarily on services, followed by industry and agriculture. Last years the importance of the services sector (IT) is growing and currently it provides 76% of the Gross Value Added (GVA) in the region. Industry contributes 22.4% to the GVA with the main industrial sectors being metallurgy, machine building, energy production, chemical and food industries.

In contrast to high levels of economic activity in the capital and its vicinity, peripheral parts of the region are lagging behind in economic development, including the case study municipality – Svoge (but its main town is situated 33 km from the capital Sofia which favours labour force commuting and better employment opportunities). The structure of Svoge municipality economy is dominated by industrial enterprises. The most significant place in the local economy is for food production (more than 63% of the local GVA is generated by the industry). On the second place in the municipality economy is sector of services contributing around 35% of the municipality GVA. The agriculture is on the third place with a share of only 2%.

The municipality of Svoge has an abundance of natural resources which are a prerequisite for the development of fundamental economic activities. The terrain is mostly mountainous. The landscape is dominated by forests and pastures while the arable land is found in small-scale parcels. Less than 35% of the municipality territory is of agricultural land and half of it is cultivated. Mountainous topography and natural conditions determine land fragmentation and holdings of medium and small sized farms (the average size of the farms is 0.4 ha as vegetable and fruit growing is organized entirely in the households' yards or parcels).

There are better conditions and prerequisites for stockbreeding (over 60% of the farms keep livestock: sheep and goats, cattle, pork, poultry and bees) than for crop production. The majority of the farm holdings are semi-subsistence and subsistence (less than 10% of them occasionally sell their products (mainly eggs and milk) to the visitors). Forests occupy 59% of the municipality territory. The region has a large potential for wood processing and developing logging.

The region's landscape provides space for recreation and at the same time it contributes to the recreational value through its aesthetics. It is a traditional place for climbing, hunting, extreme and cave tourism. The villages in the area are starting points for many mountainous routes.

The demographic situation in the country as a whole and in the studied area is characterized by unfavourable age structure and negative population growth. The capacity of the people in working age is declining. As a rural area municipality of Svoge is becoming depopulated with aging population and weak local authorities in the small villages. The municipality has well developed road and railroad network and it is connected easy with the country and the capital. The internet and communication network is at medium level.

The above described characteristics of the region are a very important prerequisite for the initiative's developments and advancements.

### 3.3. The Countryside Consumption initiative

The Countryside consumption case is the initiative (niche level) which main aim is to live close to the nature, to produce ecologically and locally grown agricultural products and food. The initiative has started in 2007 in the village of Zhelen situated up in Svoge municipality, 50 km north of Sofia. The initiative promotes low-input production, organic farming, permacultures, biodynamic agriculture etc., deals with applied design, arts and crafts, encourages sustainable eco-art houses construction with eco and recycled materials (solar roof, additional brick walls, insulated with straw and clay or rainwater system etc.). Its main characteristics are: low use of fertilizers and agrochemicals, low degree of mechanization, breeds and varieties adapted to the local environment and relatively high level of labour input necessity. The production is organized mainly in family farms and it is more of a lifestyle than most other jobs and their roots – small scale subsistence and mixed farming have been there for a long time and until today. It is sustainable because the living and working place is the same. But the motivations of the actors are different than income generation and much more complex. (Peneva et al., 2012) They are innovative for the region, their activities are changed and adapted to the specific natural circumstances and the production process provides typical rural landscape. Also the way on implementation of the initiative stimulates consumption of local food simultaneously with the lowering fuel costs and carbon footprint. There is a re-invention of local food taste and the cultural values of the farming systems. The local households within the initiative are

important for the non-farm economic activities because of their non-food needs despite they are restricted due to the way of life they choose.

The innovation is concerned with a new way of understanding and relating to countryside, from both the land owners' perspective at the scale of the farm units and consumers perceptions. They are residents of the rural area and contribute to a new shape of the rural communities contesting local community about their activities and how much they are considered, accepted, and even explored among the other residents (Pinto-Correia et al., 2014, Peneva et al., 2012). Farming is undertaken not as a primarily income generation activity, but mostly of environmental concerns, search for healthier consumption and lifestyles and proximity to nature, expecting and promoting new life habits in traditional rural area.

### 3.4. Results and Discussion

At the landscape level the initiative is a result of the general changes in the values and understanding of the society as a whole about the nature and interactions between it and people, the growing societal awareness of sustainability, animal welfare and food quality and evolving of the sustainable development concept as a whole. Moreover, people have become more aware of pollution and toxins and changing their vision for life resulted in new vision for healthy nutrition. Especially, for the eco-innovations implementation the influence of the world wide social movements of biodynamic farming and permaculture was important.

The incumbent regime is represented by extensive conventional farming; traditional food production, processing and marketing; rural housing and consumption of rural lifestyle (agricultural production is overlapping housing system) and consumers environmental and health concerns. Further, the proximity to capital Sofia has a strong influence due to the concentration of industrial capacity, new technology implementation, relatively good infrastructure network, spatial accessibility and high population density. The overall economic development resulted in high level of capital investment in new technologies, materials and energy resources, including researches, education and information technologies. In this regard the impact of the technological trends encourages and enables both farmers and visitors to reach each other's. Thus, the system of tourists visits based on the participation approach is developed, promoting labour intensive agriculture, together with enjoying countryside and experiencing rural living and its people.

The temporal scale of the initiative is only from the last 8 years. Nevertheless, it is observed that there are changes in the sense of an expansion of the initiative, number of its participants and followers as well as in its acknowledgement both by the local community and broader regional/national stakeholders. The initiative is a bottom-up processes (combined with a start of a project promoting community supported agriculture at national level); has little formal organization (because of the project and some specific regulation of the legal status of the farmers); derives in new ways of managing the land and create new forms

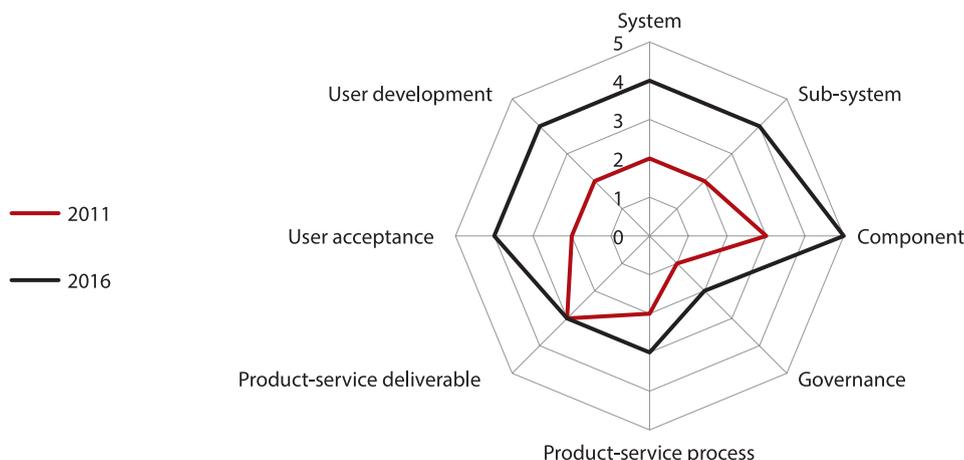


Figure 1. Eco-innovation dashboard for the assessment of the eco-innovation in Countryside consumption initiative. Source: adapted by J. Carrillo-Hermosilla et al (2010).

of agriculture; provides little emphasis to marketing or create a direct link with consumer (including implementation of the concept of “tourism with participation and consumption”); and creates new types of social relationships amongst the initiative-related actors and between these and others (urban or rural actors) (Pinto-Correia et al., 2014, Peneva et al., 2012).

Namely, the interactions between different actors are explored in comparative analysis of the eco-innovations process implementation for the last five years (Figure 1), influenced by internal and external factors, and following the assessment of the changes proposed by J. Carrillo-Hermosilla et al. (2010). They propose an eco-innovation dashboard for the assessment of the occurred change in several dimensions of the eco-innovation consisting of design, user, product-service and governance aspects. The assessment is made by experts and allows comparisons as well as scoring of the initiative’s progress.

Social actors are personalities – individuals with different life strategies, experiences, freedom of choice, but they have in common a goal and motivation. Since the beginning of the initiative the group is growing every year and wins followers, supporters, volunteers who visit the site, most of them repeatedly. These interactions lead to redesign of the system to reduce the environmental impacts of production and consumption and development of new components and eco-efficient solutions and optimization of the sub-regimes.

Moreover, the special system of stakeholders’ involvement supports the anticipation of the acceptance of eco-innovations in the market. Additionally, the changes in the products/services delivered as well as changes in the perception of the customer relation are observed. But the changes in institutional system are still at low level and there is a lack of specific policy for support.

## Conclusions

The main driver (landscape pressure) for this changing process is the society demand of environmental, nature, health and well-being values as well as for the increased demand for the studied area by new entrants, mainly with an urban origin. The impact is in terms of maintenance of a living area through the synergy effects of ecological, economic (agricultural) and social systems functioning which prevent the area from the risk of abandonment and depopulation. The agriculture sector does not consider this type of eco-farming, and as such, keeping it as an unseen reality, it is enabling it to grow in response to consumer demand, without regulation from the agricultural sector (Pinto-Correia et al., 2014, Peneva et al., 2012). Further, there is a strong impact on the rural communities, as new people and new ideas (eco-innovations) come in and create new dynamics and networks. The impact in these local communities of the income transfer from urban employment and wealth to the rural living place should not be underestimated. Adding to this, concerns for the environmental quality and for the production and consumption of healthy food also influence the changes as well as society valuation of the countryside and its landscape as the provider of life quality, recreation and leisure possibilities.

## References

1. Boons F, Montalvo C., Quist J., Wagner M. (2013), *Sustainable innovation, business models and economic performance: an overview*, Journal of Cleaner Production, 45: 1–8.
2. Diver S. (1999), *Biodynamic Farming & Compost Preparation* (<http://www.attra.org/attra-pub/biodynamic.html>).
3. Geels F. (2011), *The multi-level perspective on sustainability transitions: Responses to seven criticism*, Environmental Innovation and Societal Transitions, 1(1): 24–40.
4. Geels F, Schot J. (2010), *The dynamics of transition: A socio-technical perspective*, [in:] J. Elzen, B.F. Geels, K. Green (eds) (2004), *System innovation and the transition to sustainability. Theory, evidence and policy*, Edward Elgar, Cheltenham.
5. NSI, *Statistical Yearbook*, various years.
6. Peneva M., Draganova M., Mishev P. (2012), *Case Study report: Countryside Consumption Cluster, Community Supported Agriculture in Zhelen, Bulgaria* (Solidarno), FarmPath working report.
7. Pinto-Correia T., Gonzalez C., Sutherland L.A., Peneva M. (2014), *Lifestyle farming: countryside consumption and transition towards new farming*, [in:] L.A. Sutherland, I. Darnhofer, G.A. Wilson, L. Zagata (eds), *Transition Pathways towards Sustainability in European Agriculture: Case Studies from Europe*, CABI, Wallingford, pp. 67–81.

# Chapter 4

## The Use of Innovative Research Tools in Retail Store Environment

Jakub Berčík, Elena Horská

**Jakub Berčík:** Assistant Professor in the Department of Marketing and Trade, SUA in Nitra

**Elena Horská:** Professor in the Department of Marketing and Trade, SUA in Nitra

**Abstract:** The store environment is one of the crucial aspects of purchase, because more than 70 % of consumer decisions are made directly at the point of sale. The final decision of consumers is based not only on the price and quality, but also depends on the visual communication of the store. That is the reason for acquiring feedback continuously to meet the needs better, to create positive feelings by consumers, which will ultimately contribute to customer satisfaction and building loyalty. Tools for getting feedback through traditional research techniques at the point of sale are still effective, but there are situations that require the involvement of new and innovative research methods. The paper deals with a comprehensive and interdisciplinary research of the impact of in-store communication on the attention and microemotions (happiness, sadness, surprise, disgust) of consumers on the food market. The research integrates measurements with eye camera (Eye tracker) and facereading (FA) in a real grocery store with the purpose of recognizing attention and emotional response among respondents under the influence of selected tools of in-store communication. By using a mobile eye camera (Eye tracker) and stationary camera for capturing face reactions we observe the attention and microemotions to reveal true consumer preferences using chosen communication tools at the point of sale.

**Keywords:** retailing, neuromarketing, consumers behaviour, facereader, eye tracker

**JEL classification:** M31, L81

## Introduction

Paradhan (2010) defined merchandising as a process of planning, development and presentation of product ranges for identification of target markets from the point of view of price, style, classification and timing. Merchandising is often reduced to the method of layout of the shop and presentation of goods but they represent only part of global merchandising at point of sale (Borusiak, 2009). A higher category of the merchandising is visual merchandising which deals with an issue of goods display in detail while the used methods and hired people put the merchandising at almost artistic level (Morgan, 2011). Visual merchandising is one of the final stages in the process of setting up of a retail store, which customers would then find attractive and appealing (Bhalla and Anuraag, 2010). According to Horská et al. (2010) the visual merchandising represents everything that the customer can perceive by his senses. It is especially a tool of achieving the target purchase at the purchase area and mechanism which communicates with customers and influences their sale decisions, states Bhalla (2010). The concept of the visual merchandising includes apart from the merchandising tools as well elements of in-store communication and retailing marketing, state Horská et al. (2014).

Nowadays, the point of sale is considered as one of the few channels of communication, which is not saturated and has large future potential. The fact that people make 75% of decisions about the purchase at the point of sale can demonstrate the huge power of this place (POPAL, 2013). Point-of-purchase communication is a powerful marketing tool since it reaches consumers at the moment when, and the place where, they are taking decision. Point-of-purchase communications have to be particularly well integrated with sales promotions and distribution strategies. The objective of the in-store communications are to attract the consumers' attention, to remind him or her of ongoing or previous advertising, to inform, to persuade and to build an image of brands on shelves. Several instruments of the in-store communications can be used, such as shelf displays, floor graphics, trolley advertising, moving displays and interactive kiosks (Pelsmacker et al., 2007). The primary task of the in-store communication is to draw the attention of buyers to incentives, which lead to the purchase realization (Fill, 2009). POP (Point of Purchase) advertising materials are used in stores for a long time, they include elements of exhibition shelves, which present different products, shopping carts containing logos of different brands, advertisement pointing out to specific products in shopping streets (Harris and Sanborn, 2014). Furthermore, informing consumers is the important part of the function of POP mediums. Signs, posters, in-store ads and other POP mediums are pointing out to specific products and provide their potentially important information in this context (Shimp and Andrews, 2013). POP (Point of Purchase) and POS (Point of sale) mediums shall be different from other traditional mediums to whom are consumers immune to achieve its efficiency (Horská et al., 2010). Communicating with customers via digital screens is an effective approach for visual merchandisers; it enables marketing opportunities that are active and dynamic

instead of static. The content needs to be changed frequently, which adds to the retailers' annual budget, in some cases significantly, but the advantages are that content can be shared between multiple stores. (Bailey and Baker, 2014)

## Facial expressions

We can recognize a range of emotional states on a human face. Changes in facial expressions can be classified into two levels like observable changes of expression – micro-emotions (e.g. smile or scowl) and unobservable changes of mimic muscles (e.g. muscle contractions associated with positive and negative emotional responses). Observation of the facial expressions is found to be an important indicator of positive or negative emotional responses (Nagyová et al., 2014). Special software (Facereader) can be used to detect observable changes in facial expressions, it can quickly detect emotions from recorded face of a tested subject. Micro-facial expressions are involuntary and fleeting facial expressions that reveal an individual's experience of an emotion. The seven basic facial expressions can all be expressed – happiness, sadness, anger, contempt, surprise, fear and disgust (Levine, 2014).

## Eye tracking

Measuring of eye movements and dilated pupils connected with the observation of object or scene has multiple uses in neuromarketing. It can be used as a separate tool, but also as an important complement to other indicators. Speed and changes of view direction provide valuable indicators of attention, interest and attraction. The tool used for measuring of eye movements is called Eye tracker, we recognize the mobile and stationary design of this device according to the research. According to Holmqvist et al. (2011) we can describe four large classes of eye tracking measurements. Movement measurements which are concerned with a whole variety of eye-movements through space, and the properties of these movements. Position measurements which deal only with where a participant has or has not been looking and the properties of eye-movements at spatial locations. Numerosity measurements which pertain to the number, proportion or rate of any countable eye-movement event. Latency measurements which express the duration from the onset of one event to the onset of a second event. Measurements of this type also appear in the form of spatial distances.

The consumer perceives the store environment by all five sensory organs. Solomon et al. (2006) describe this perception as the process in which people collect, organize and interpret information from the outside world. It follows that in store shopping behaviour is influenced by a variety of factors such as lighting, sound/noise, smell, air quality and merchandising.

## 4.1. Methodology

Primary neuromarketing research of selected in-store communication tools as a part of the merchandising was conducted in real conditions of a traditional retail store. Measurements of micro-emotions and visual attention was executed via biometric methods – somatic method of emotion detection based on facial expressions by Noldus company and methods of eye movements measurements (mobile Eye tracker) by Tobii company, see below Fig. 1.

16 respondents took part in the test in the age from 22 to 72 years, distribution according to sex can be seen in Table 1.

The whole procedure of shopping was filmed with Gopro Hero 3 camera, mounted on the shopping trolley facing the participants. Special care was taken to ensure good illumination of the participant's face, which is an important requirement for FaceRader 4 (Noldus Information Technology, Wageningen, The Netherlands) to produce reliable results. Also important is that participants are looking directly towards the camera while showing their facial expression. Although the software can handle rotations up to 40°, minimal rotation is desired to ensure optimal quality readings. The recordings with a resolution of 640 480 at 25 frames per second were saved as AVI files and analysed frame by frame with FaceReader 6 software, scaling the 6 basic emotions and neutral from 0 (not present at all) to 1 (maximum intensity of the fitted model). The software feature “individual calibration” was used for standardization. Facial expression states for these sections were exported and used for the statistical analysis.

The special glasses – *mobile Eye tracker* (Eye tracker glasses – 1) by Tobii company were used in this case to monitor eye movements. This device uses eye tracking technology Pupil Centered Corneal Reflection – Dark pupil, whereas in this case it is a monocular system focused on the right eye with sampling rate of 30 Hz. To analyse in detail the attraction of selected tools of marketing communication at the point of purchase we located at the individual researched positions IR Markers fixed to IR Markers Holders in a way that the IR sensor built in the front



Figure 1. Research of in-store communication tools in real conditions.

Source: Individual processing by the author based on his research in 2015.

Table 1. Research sample.

	Absolute frequency	Relative frequency (%)
Male	5	31.25
Female	11	68.75
Total	16	100.00

Source: Individual processing by the author based on his research in 2015.

part of the Eye tracking glasses was able to differentiate signals transmitted from these miniature sensors. The initial phase of the eye tracking testing in simulated, but also real conditions, was an individual calibration of every participant with a system guide (9 point calibration).

Primary data processing was carried out using descriptive statistics (frequency, quantiles, averages and standard deviations) as well as inductive statistics (chi-squared test). This test is used to determine whether the difference between the observed and expected frequencies is only random (independent variables, due to sampling variation) or is too significant to be merely incidental (there is a relationship between variables) (Rimarčík, 2015). The assumptions in this test were defined as follows:

- $H_0$ : Variables are independent.
- $H_1$ : Variables are dependent.

Computing the test statistic was based on a contingency table (Table 2).

The value of the test statistic was computed using the equation (1):

$$G = \sum_{i=1}^r \sum_{j=1}^s \frac{(n_{ij} - n_{ij}^e)^2}{n_{ij}^e} \tag{1}$$

Table 2. Contingency table.

	Variable 1 1 <sup>st</sup> category	Variable 1 2 <sup>nd</sup> category	—	Total
Variable 2 1 <sup>st</sup> category	observed frequencies	observed frequencies	—	$n_1$
Variable 2 2 <sup>nd</sup> category	observed frequencies	observed frequencies	—	$n_2$
Variable 2 3 <sup>rd</sup> category	observed frequencies	observed frequencies	—	$n_3$
—	—	—	—	$n_j$
Total	$n_1$	$n_2$	$n_j$	$n$

$$n_i = \sum_{j=1}^s n_{ij} \quad n_j = \sum_{i=1}^r n_{ij}$$

Source: Paralič (2003).

The rejection of the null hypothesis was based on the chi-squared distribution. The null hypothesis is rejected if

$$G > X_{1-\alpha}^2 [(k-1)(m-1)] \tag{2}$$

The chi-squared test for independence was computed using the RapidMiner software and MS Excel. The measured values of valence levels have been grouped into clearly arranged tables and graphs that allowed us to compare the different age, gender in chosen food department of grocery store.

## 4.2. Result and discussion

To verify the efficiency of digital shelf communication tools we placed an audio-visual device with a LED strip light in the wine department. A task of this screen was to stimulate the customers to buy red wine via a video presenting production, storing and serving of red wine. As can be seen in Fig. 2 the screen was located in a close distance to the red wine display. In the right part of Fig. 2 can be seen a visual attention by means of heat points of the selected man and woman during passing this purchase area.

Based on the data from the mobile eye camera (Eye tracker glasses) and their following processing via Tobii Studio software in the Fig. 3 can be seen a heat map of the visual attention of the customers in the shelf area where was the presentation screen with LED light placed. Resulting from the heat map is clear that apart from the screen the views of the customers were focused to the area with red wine, or prices of red wines. According to the aforementioned can be concluded that the digital screen met its purpose while the customers were mostly directed to the red wines.

Except the heat map, we generated as well a map of fixation points with filtered views longer than 0.6 seconds to find out an order of the individual customer



Figure 2. Location of the digital screen in the wine department of a retail store and visual attention of the selected respondents.

Source: Individual processing by the author based on his research in 2015.



Figure 3. Heat map of the visual attention of the respondents.  
Source: Individual processing by the author based on his research in 2015.



Figure 4. Fixation points of the respondents' visual attention.  
Source: Individual processing by the author based on his research in 2015.

views. As is stated in Fig. 4 the first customer views mostly among female respondents were aimed at individual wines, then at the digital screen and finally at the area of red wine display. With men most of the first views were focused on the screen area. Summarising the aforementioned it is possible to sum up that the digital device was more appealing to men, but it secured a higher interest in red wines with both sexes, what confirms a certain efficiency of this device.

With looking at the wines and choice of them were detected some micro-emotions at the respondents due to the method of face expressions recognition (Facereading). At Fig. 5 and 6 can be seen how the software matches faces with individual models, based on which it classifies seven primary micro-emotions (happy, sad, surprised, disgusted, neutral, angry, scared).

Despite the fact that the software can adequately recognise emotions on the grounds of the facial expressions only in a situation when the customer is facing the camera eye, which records the respondents' faces, it is possible to consider this methodical approach to be efficient, while it represents one of the least invasive forms of researching an emotional condition of a tested subject.

Average micro-emotions recognized on the basis of the facial expressions while looking at wines are depicted in Fig. 7, in which you can see that the customers looked 62.2% neutral when choosing wines at this department. Rather high numbers were found out with the happy emotion – 16.4% and as well with



Figure 5. Encoding of the facial expressions during shopping at the wine department – group A.

Source: Individual processing by the author based on his research in 2015.

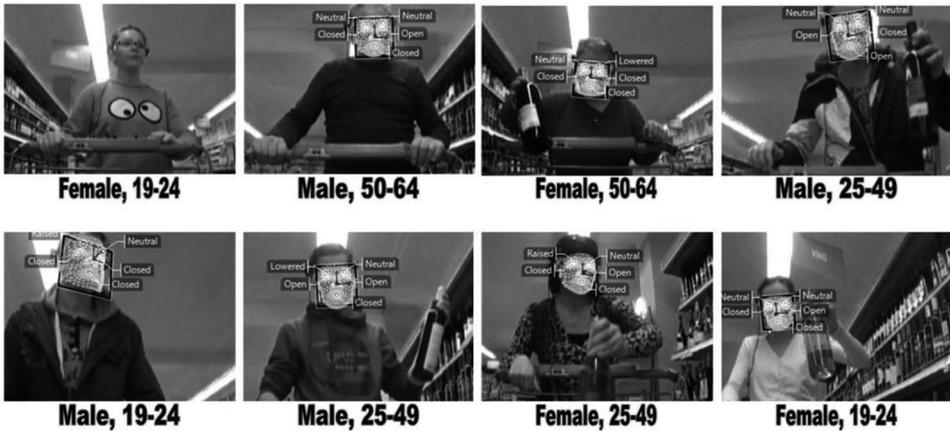


Figure 6. Encoding of the facial expressions during shopping at the wine department – group B.

Source: Individual processing by the author based on his research in 2015.

the disgusted one – 25.6%. With the disgusted emotion can be seen a quiet wide range of values what tells us that incidence of this emotion with the individual tested customers is various.

The software enables, apart from the micro-emotion detection, a detection of valence and excitement too. At the wine purchase department we concentrated on verification of hypotheses stated by us except for recognition of micro-emotions due to the aforementioned fact. With the first hypotheses we assumed that there is a dependency between the valence (positive, neutral and negative emotions) and sex. The individual findings are depicted in a graphic way in Fig. 8. The mentioned dependency was verified by the Chi-square independence test at the importance level of 0.05. A relation between the variants was not proved.

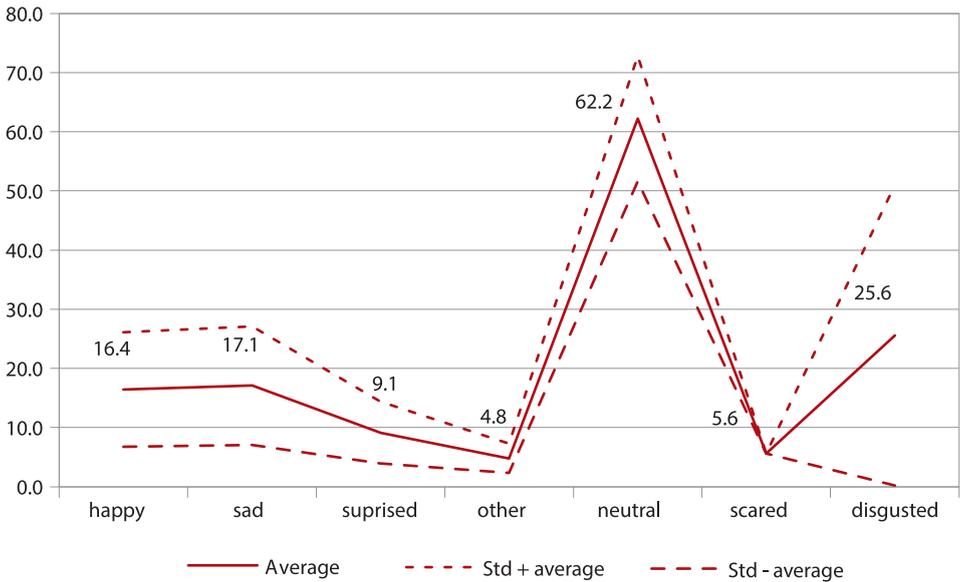


Figure 7. Recognised emotions on the basis of facial expressions at the wine purchase department (Face reading).  
 Source: Individual processing by the author based on his research in 2015.

We wanted to verify a relation between the valence and age. The hypothesis about the dependence of attributes, tested at the importance level of 0.05 using the Chi-square independence test was not confirmed. The individual findings are depicted in a graphic way in Fig. 9.

Based on the data about consumers’ valence during shopping at the wine department it can be concluded that most of the respondents had positive and

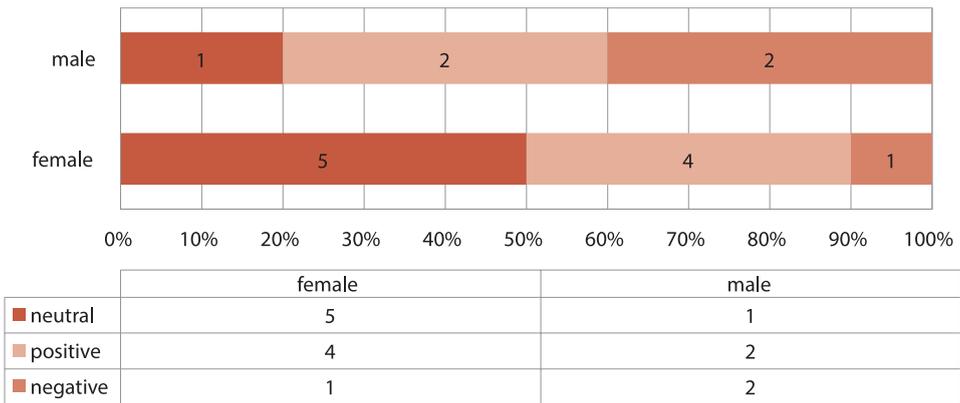


Figure 8. Dependence of valence on gender when choosing wines in purchase environment.  
 Source: Individual processing by the author based on his research in 2015.

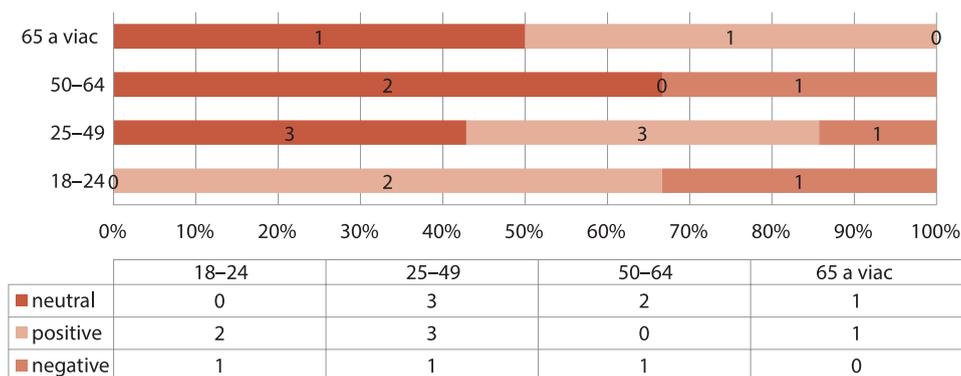


Figure 9. Dependence of valence on age when choosing wines in purchase environment. Source: Individual processing by the author based on his research in 2015.

neutral feelings, see Fig. 9. The stated fact could have been partially enhanced by the digital screen located at this purchase department.

## Conclusions

In the contribution we dealt with a research of the influence of the selected visual merchandising tool on consumer behaviour and perception via neuromarketing methods (Eye tracking and Facereading). As the in-store communication methods offer the last possibility to influence the purchase behaviour, we focused on testing the efficiency of the digital screen complemented with a light effect (LED strip) placed at the wine purchase department as a visual merchandising tool at a point of purchase. This tool was tested in real conditions of a COOP Jednota Slovensko supermarket. Resulting from the outputs of the eye camera (Eye tracker) we used statistical indicators (heat map and fixation points) in real conditions to prove that consumer views are concentrated not only on the screen area with light effect but as well on places where are red wines placed and to which was their attention targeted in the video. Via the fixation points we were able to find out that men were mostly primarily looking at the screen itself and women at first at various types of wine and then at the digital screen complemented with a LED strip. Utilizing the software (Facereader 6) to recognise micro-emotions from the face expressions we identified customer emotions during shopping at this purchase department. On the grounds of the average values we can summarise that the customers were feeling 62.2% neutral, 25.6% disgusted and 16.4% happy. The software was not able to recognise almost 4.8% of micro-emotions on average. We made an effort to verify a difference in the valence (positive, negative, neutral) of the consumers with the influence of age and gender via statistical tests. Not a single case was proved with this dependence.

## Acknowledgements

This study is produced as part of the research project VEGA 1/0874/14 “The use of neuromarketing in visual food merchandising” conducted at the Department of Marketing and Trade at the Faculty of Economics and Management of the Slovak University of Agriculture in Nitra, Slovakia and also supported by the Research Center AgroBioTech in accordance with the project Building Research Centre “AgroBioTech” ITMS 26220220180. We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

## References

1. Bailey S., Baker J. (2014), *Visual Merchandising for Fashion*, 1st ed., ACCBlack, London.
2. Bhalli S., Anuraag S. (2010), *Visual Merchandising*, 1st. ed., McGraw- Hill Education, New Delhi.
3. Borusiak B. (2009), *Merchandising*, 1st ed., Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
4. Fill Ch. (2009), *Marketing Communications: Interactivity, Communities and Content*, 1st ed., Pearson Education Limited, Harlow.
5. Harris R.J., Sanborn F.W. (2014), *A Cognitive Psychology of Mass Communications*, 1st ed., Routledge, Oxford.
6. Holmqvist K., Nyström M., Andersson R., Dewhurst R., Jarodzka H., Weijer J. (2011), *Eye Tracking: A comprehensive guide to methods and measures*, 1st ed., Oxford University Press, Oxford.
7. Horská E., Mehl H., Berčík J. (2014), *Review of classical and neuroscience insights on visual merchandising elements and store atmosphere*, ICABR 2014.
8. Horská E., Nagyová Ľ., Rovný P. et al. (2010), *Merchandising and Event Marketing: pre produkty poľno hospodárstva*, 1st ed., SUA in Nitra, Nitra.
9. Konštiak P., Kita J., Kita P., Grosmanová M., Halašová D. (2016), *Merchandising management in the context of active sale and sustainable development*, 1st ed., Foundation of the Cracow University of Economics, Cracow.
10. Levine T.R. (2014), *Encyclopedia of Deception*, 2nd ed., SAGE Publication, London.
11. Morgan T. (2011), *Visual Merchandising Window and In-store Displays for Retail*, 2nd ed., Laurence King Publishing, London.
12. Nagyová Ľ., Horská E., Kretter A., Kubicová Ľ., Košičiarová I., Récky R., Berčík J., Holienčinová M. (2014), *Marketing*, 1st ed., SUA in Nitra, Nitra.
13. Paralič J. (2003), *Objavovanie znalostí v databázach*, 1st ed., Elfa, Košice.
14. Pradhan S. (2010), *Retail merchandising*, 1st ed., Tata, MCGraw Hill, New Delhi.
15. Pelsmacker P., Geuens M., Bergh J. (2007), *Marketing Communications: A European Perspective*, 3th ed., Pearson Education, Harlow.
16. POPAI (2013), *Průvodce oborem marketing at-retail* (<http://www.popai.cz/1-299/Pruvodce-oborem-marketing-at-retail-2013.aspx>; accessed: 16.03.2015).
17. Rimarčík M. (2015), *Opisné charakteristiky* (<http://rimarcik.com/navigator/och.html>; accessed: 13.01.2015).

18. Shimp T., Andrews J.C. (2013), Advertising Promotion and Other Aspects of Integrated Marketing Communications, Cengage Learning, Mason, Ohio.
19. Solomon M.R., Marshall G.W., Stuart E.W. (2006), Marketing: Očima světových marketing manažerů, 1st ed., Computer Press, Brno.

# Chapter 5

## Offer Personalization as an Aspect of Retailers' Innovation

Barbara Borusiak, Bartłomiej Pierański

**Barbara Borusiak:** Associate Professor in the Department of Commerce and Marketing, Poznań University of Economics and Business

**Bartłomiej Pierański:** Assistant Professor in the Department of Commerce and Marketing, Poznań University of Economics and Business

**Abstract:** Personalization has become one of the most prominent development trends in marketing management. In the paper the essence, process as well as levels of personalization are presented. The authors also investigate the prerequisites for the personalization of retailers' offers. The most important one are: customer expectations, direct access to data relating to the buying behaviour of customers and advanced technological possibilities for collecting and processing the information necessary for creating customer profiles. In attempt to systematize the areas and instruments of personalization in retailing the authors refer to the set of marketing instruments used in retailing. Thus the personalization of product assortment, personalization of communication, personalization of price and personalization of place (method) are described.

**Keywords:** retailers' innovation, offer personalization

**JEL classification:** L81, M31

### Introduction

Although the personalization of offers is not in itself a new phenomenon, in these times of catering for the mass consumer, personalization has become one of the most prominent development trends in marketing management. Many experts in the field of retail trade currently regard personalization as the highest

priority and, at the same time, the greatest challenge for management (Grant, 2015). In principle, personalization involves creating unique solutions tailored to the unique needs of individual consumers. This means that the necessary precondition for the implementation of this concept is the ability to obtain information about the needs of individual customers. The aim of this paper is to characterise the forms of offer personalization which can be used by retailers. Retailers have a special position in the context of personalization: unlike many other companies, they have direct access to the purchase history of thousands of buyers, on the basis of which, using *big data* technology, it is possible to create profiles of customers in terms of their purchasing preferences. Such profiles enable customization at different levels: from the least sophisticated, involving an offer directly related to past purchases, to a very advanced, constructed on the basis of consumers psychographic and behavioural characteristics, additionally taking into account the temporal and spatial context of a purchasing situation. The paper will also present the results of research on the attitudes of customers towards personalization.

## 5.1. The origin and essence of personalization

Personalization is a phenomenon which is not only increasingly described in the literature but is also increasingly common in business practice. Undoubtedly, one of the major causes of the increased interest in and use of personalization is the development of information technology, which permits collecting, processing and analysing the data necessary to identify and study customers' needs (McCarthy, 2004). Nevertheless, in the opinion of some researchers personalization is not a new phenomenon which has emerged as a result of the development of information technology. On the contrary, they argue that customization was already used when the earliest commercial transactions were negotiated and concluded (Vesanen, 2007).

Despite the attention which is given to the phenomenon of personalization, it has not been clearly defined. This is due to the fact that the term covers a very wide spectrum of concepts related to, among other things, building relationships with buyers, collecting and analysing market information, as well as designing production processes. It is also pointed out that this term is understood differently by different sectors (Kemp, 2001). Nevertheless, a review of the different definitions makes it possible to identify the undisputed constituent feature of personalization, which is adjusting the company's offering to the individual needs of each client. This is mentioned by Hanson (2000), who states that personalization is a form of product differentiation which enables meeting the individual needs of customers. A similar view is expressed by Peppers (Peppers et al., 1999), according to whom the essence of personalization is matching the characteristics of a product to the individual needs of customers so that they can enjoy greater convenience (by using the product), lower costs, and other benefits. Finally,

personalization is seen as a company's ability to recognize the needs of its customers and treating them on an individual basis (Imhoff et al., 2001). Based on the above definitions, for the purposes of this article it is assumed that personalization is the ability of companies to recognize the individual needs of customers and create a unique offer that will satisfy those needs. Understanding personalization in this way means that it can be treated as a process consisting of a sequence of specific stages. Such an approach to personalization as a process was proposed by Vesanen and Raulas (2006), whose concept is presented in Figure 1.

Personalization is a process whose inherent element is the continuous obtaining of information about buyers. This information can be obtained either through analyses of the market behaviour of a company's clients, or from external sources such as reports. As mentioned earlier, information technologies make it possible to amass large amounts of diverse data, known as Big Data, and the relevant software helps to appropriately analyse this information (Borusiak et al., 2015). Based on the collected and analysed data, individual customer profiles are created, which enables companies to create an offering tailored to each customer's individual needs. In the personalization process, this stage is called customization. Such an offering should be understood broadly, not only in the sense of a product. It seems that the concept of the 4P's comprehensively visualises the essence of personalization areas. Thus, it involves not only matching the product (in the case of retail; product assortment) to the individual needs of the buyer, but also individual pricing, customised promotional activities, as well as offering products at the right time and place. The final stage of personalization is the sale, i.e. the delivery of the product to the consumer.

At this point it should be noted, however, that in the literature there is no agreement as regards defining the concept of personalization and related concepts such as customization, presumption, co-creation, etc. Opinions in this respect are divergent. According to some researchers, customization is a concept

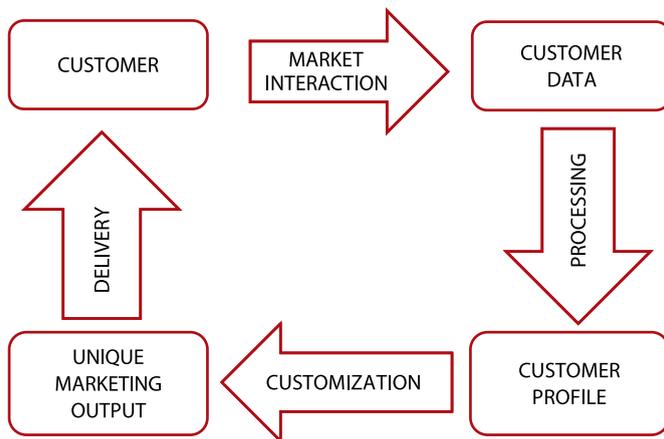


Figure 1. The process of personalization.  
Source: Own compilation based on Vesanen, Raulas (2006).

distinct from personalization, the distinction being based on the type of information used to create an individualised offer (Szymkowiak, 2014). According to others, customization is included in personalization, being a separate component of the process (Hanson, 2000; Imhoff, 2001). According to still other researchers, these two concepts are synonymous and can be used interchangeably (Peppers et al., 1999), or it is difficult to make any objective distinction between them.

An important issue related to personalization are its levels (or depth). They indicate in what way and to what extent an offer was customised to the individual needs of buyers. This customization depends on the amount and nature of collected data as well as the precision of the created customer profiles. A division in the levels of personalization and their characteristics was proposed by, among others, Gilmore and Pine (1997). Their concept is presented in Figure 2.

The level of personalization which requires the least involvement on the part of the company (in other words its shallowest manifestation) appears to be the so-called adaptive personalization. This involves offering standard products which can later be adjusted by the customers themselves to their own needs. In this case, the entire burden of personalization is shifted onto the buyers, which means that the company does not have to collect and analyse market data in order to create a unique product. A greater degree of company involvement is required for cosmetic personalization. Its essence lies in differentiating the way a standard product is presented, depending on the needs of the buyers (Gilmore, Pine, 1997). Typically, this type of personalization manifests itself in including the name of the customer in an advertisement presenting a standard product (Borusiak et al., 2014), or in customised packaging (Silveria, 2001). Transparent personalization involves matching the offer to the needs of the buyers without their conscious involvement. This type of personalization can be used in a situation when the customers' needs are relatively easy to identify (i.e. are transparent). Thus, without interacting with the buyers, the company is able to provide them with a unique offer. Indicating once again the rapid development of information technology and the increasing number of online transactions, it can be

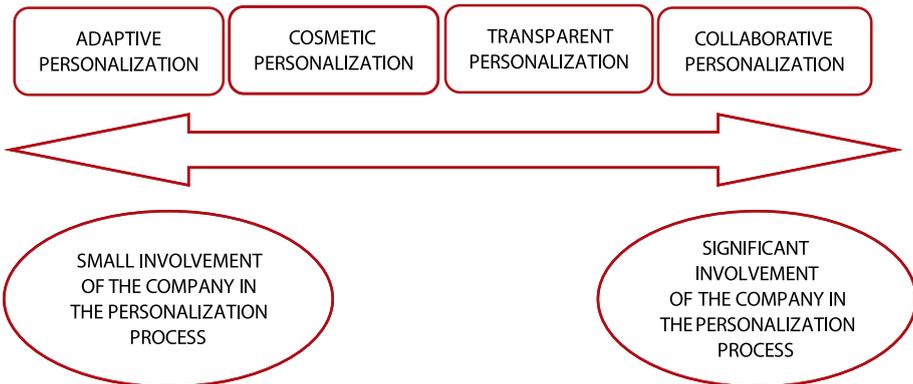


Figure 2. Levels of personalization.  
Source: Own compilation based on Gilmore and Pine.

assumed that the ability to effectively use this type of personalization will help companies gain a competitive advantage. The Internet environment makes it relatively easy to collect data on potential buyers (using tracking algorithms), making the entire process automatic. Data relating to the websites visited, the time spent on them, the transactions made, as well as participation on social networks, etc. is automatically stored and analysed, and on this basis customer profiles are created. These profiles allow companies to prepare an appropriate offer and communicate it using so-called remarketing, based on Real-Time Bidding (RTB), which follows the customer as they visit other websites (Borusiak et al., 2015). Another advantage of this type of personalization is that it does not require the customers to be either aware of their needs or able to articulate them. This is important because it is often indicated that customers are frequently unable to clearly define their preferences or communicate them to the company in a precise manner. The final type, collaborative personalization, is based on direct and close cooperation between the buyer and the seller. The purpose of this cooperation is to create a unique product from scratch (Gilmore, Pine, 1997).

## 5.2. Prerequisites for the personalization of retailers' offers

As mentioned above, the personalization of retailers' offers has a very long history. It is connected with the earliest stages of the sector's operation, when merchants served customers who they knew very well; thus, they had sufficient information to prepare dedicated offers. It was only in the 20<sup>th</sup> century, with the introduction of self-service stores, that retailing underwent massification. Now, however, there is a strong need for, and at the same time the possibility of, personalization which does not exclude catering for mass customers. Thus, the main prerequisites of personalization are the following:

- customer expectations,
- direct access to data relating to the buying behaviour of customers,
- advanced technological possibilities for collecting and processing the information necessary for creating customer profiles.

The attitude of customers towards personalization is generally a very complex phenomenon. Such a conclusion can be drawn from several studies. One of them was a survey conducted in 2014 by the global consulting firm Accenture in the US market<sup>5</sup>. The principal conclusion from this study is that customers want personalization, but they are not prepared to accept its most excessive (in their opinion) forms. The forms of personalization which are the most welcome by the consumers are presented in Table 1.

Consumers, however, are not willing to disclose too much information about themselves. Only 20% would agree to disclose to the retailer information about

<sup>5</sup> The survey was conducted using the CAPI method on a representative sample of 1,000 US consumers between the ages of 20 and 40.

Table 1. The most welcome forms of personalization by retailers (in-store and online) from a consumers' point of view.

Type of retailer	Form of personalization	Percentage of respondents receptive to the form
In-store	Automatic discounts at checkout for loyalty points/coupons	82.0
	Real time promotions	57.0
	Complementary item suggestions	54.0
Online	Website optimized by device	64.0
	Promotions for items the customer is strongly considering	59.0
	Compare prices or buy an item	59.0

Source: *Shoppers Conflicted on How Personal to Get*, 2015, Accenture, <https://newsroom.accenture.com/industries/retail/us-consumers-want-more-personalized-retail-experience-and-control-over-personal-information-accenture-survey-shows.htm>, accessed 5.09.2015.

their current location. Even fewer, 14%, are willing to share with retailers their browsing history. On the other hand, almost 90% would like to restrict retailers' access to personal information, would not wish to share this information with third parties, and would like to have control over the use of their personal data. (*Shopper*, 2015). The findings of this survey show that customers have fairly moderate expectations as regards the personalization of the retail experience, which is undoubtedly associated with a growing anxiety about the loss of privacy. However, all the indications are that, despite these concerns, personalization is the inevitable direction in which the trade sector, especially retail, is likely to develop.

### 5.3. The areas and instruments of personalization in retailing

The most extensive range of activities in terms of personalizing a retailer's offer is available to brick&click establishments, which have a large portfolio of formats: on the one hand, it is possible for them to have personal contact with the customer, thus implementing the traditional understanding of personalization; on the other hand, such a company has access to data relating to a variety of customer behaviours, including purchasing behaviour (both online and offline) as well as all other kinds of online activity.

In an attempt to systematize the activities involved in personalization, it seems helpful to take advantage of the traditional set of marketing instruments used in retailing. Thus, these activities can be divided into the following subsets:

- personalization of product assortment,
- personalization of communication,
- personalization of price,
- personalization of place/method.

It must be added, however, that distinguishing between these instruments can be difficult in practice because often (both in online and offline retailing) the instruments become compressed and the boundaries between them can be blurred. This may apply in particular to creating and presenting personalized offers in e-commerce, where the activities related to personalizing promotions and personalizing prices for specific customers are virtually identical. Nevertheless, the above-mentioned set of instruments will be used to review personalization activities in the retail trade.

The key element of a personalized offer, in accordance with the definition cited above, is matching the characteristics of a product to the individual needs of the buyer, which in the retail sector, unlike in the manufacturing sector, is achieved not by modifying the physical form of individual goods, but by providing the consumer with ready-made purchasing combinations. This means that the customer does not need to view (browse) all the products from the offered range, but is presented only with a section that corresponds to their current and/or potential needs. And, although it may seem that this practice restricts the freedom of the customer, in view of the currently frequently observed phenomenon of analysis paralysis, being a consequence of the multitude of options to choose from (Schwartz, 2013), such a practice provides some benefits, primarily connected with shortening the transaction time. The personalization of the product assortment can be achieved through the following specific activities:

1. generating personalized shopping lists, based either on the history of the customer's purchases (the simplest version) or on their psychographic profile (the most sophisticated version). An intermediate variant could be matching the shopping list to specific needs defined by the customer, for example assembling the items needed for a camping trip in the mountains, preparing a party or preparing dinner;
2. personalizing the customer's path around the store by means of navigation applications, used as a complementary solution to the one described above in bricks-and-mortar stores, where the possibility of "picking out" a personalized offer is smaller in comparison to e-commerce. As a result of creating such paths, the customer can get a view of the store layout with a marked route corresponding to their verbalised (in the form of a shopping list) or non-verbalised expectations. Following this path can significantly reduce the time spent on shopping in large stores;
3. dynamic development of the product assortment, which primarily consists in modifying the product range according to the intentions (not always verbalised) of the buyers. This may involve deepening and/or widening the assortment in specific categories in order to ensure greater complementarity of the product range offered.

The personalization of consumer communication is based on individualising its form and content. This can be implemented using the following tools:

1. personal selling,
2. personalized advertising,
3. personalized sales promotion.

Personal selling is an instrument used in the most traditional form of personalization, implemented through direct contact between the seller and the buyer. Such a condition is necessary but is not sufficient for personalization. What is crucial is a relatively stable personal relationship between the seller and the consumer, as a result of which the former is able to formulate a message corresponding to their knowledge about the customer that is acquired in the course of previous contacts. Unfortunately, despite the merits that customers, especially older ones, see in this form of personalization (Johnson-Hillery et al., 1997), it is impossible to implement when catering for mass customers. In such cases it is necessary to use personalized advertising and sales promotion, both of which can be automated.

As regards personalized advertising, the following types can be listed which enable the customization of the message:

- mail advertising (e-mail or postal mail),
- telephone advertising,
- Internet advertising (social media, news and other portals, e-commerce, shopping apps),
- outdoor advertising (digital signage),
- in-store advertising (digital signage).

An interesting and innovative solution which makes it possible to personalize the form and content of advertising is digital signage, used both inside traditional shops as well as outside them. Digital signage uses Anonymous Viewer Analytics (AVA), a technology for gathering information about the people in the vicinity. This includes information about the age and gender of a person, as well as that relating to how far away they are and how concentrated their attention is on the screen. On the basis of this information relevant advertising messages are displayed, often in the form of videos made in advanced 3D technology (shown on monitors on which they can be watched without special glasses), or even in the form of fully three-dimensional holograms. This means that new forms of communication with customers are advanced in terms of both content, due to the possibilities of personalizing the message, and form. A digital signage system also enables assessments regarding the reception of the presented content: it measures how long a person's attention is focused on the screen, which can potentially help to create more effective forms of advertising (*The Retailers*, 2014, p. 13).

Another communication tool, personalized sales promotion, is mainly used in e-commerce. It is based on creating personalized promotional offers, in which both the product and the price are matched to the characteristics of the client (Changchien et al., 2004). These characteristics comprise two groups of attributes: demographic and economic characteristics such as gender, age, education, income, etc.; and the characteristics of the transactions made by the customer, such as the type of purchased goods, the frequency of purchases, the value of transactions, and the time and place of the transactions. A customer can get promotional offers on various categories of product:

- a product which they viewed but did not buy (so-called retargeting),

- a product which they used to buy but have stopped buying it,
- a product which they did not previously view or buy but which fits their profile (for example because it is bought by people with similar characteristics, or it matches the customer's interests manifested in their browsing history),
- a product which is complementary to previously bought products,
- a product which can be a substitute for previously bought or viewed products,
- a product which is a newer version of a previously bought product and which can satisfy the customer's replacement demand.

An extremely important issue is the time and place at which the promotional offer is presented to the customer, since an appropriate use of the spatial and temporal context can significantly influence the effectiveness of the action. It is highly likely that, for example, a promotional offer on roof-window blinds will be most effective in the height of summer, especially if it reaches the prospective customer on a particularly sunny day, whereas the best time for an offer on outdoor furniture covers is late summer. Another example may be sending a customer a promotional offer on umbrellas or wellington boots by SMS at a time when they are near a specific point of sale and it is raining.

An issue closely related to sales promotion is the personalization of prices, which is a manifestation of price discrimination. According to the most basic definition, price discrimination occurs when identical goods manufactured/offered by the same manufacturer/supplier are sold to different customers at different prices (Mokrogulski, 2008, p. 51). Price discrimination as such has been around for quite a long time. For years it has been used in the service industry, for example the hospitality or air-transport sectors. A relatively new strategy, however, is a variety of price discrimination called dynamic pricing<sup>6</sup>. It is used especially in e-commerce, and consists in adjusting the price of a product to the willingness to pay expressed by the buyer (Lee et al., 2011, p. 532). This willingness can be defined directly or indirectly. In the former case, it is necessary to have some knowledge about the client and estimate the urgency of their needs; in the latter, dynamic pricing takes the form of an auction, where the buyers themselves specify the price acceptable to them. The auction mechanism is used on a massive scale in e-commerce, which has been made possible by such online auction and shopping websites as eBay and the Polish Allegro. In this way, prices can be an element of an offer that is very strongly adjusted to the customers' preferences.

Personalization regarding the place and method of sales can be achieved in the following ways:

1. providing customers with the possibility of independently creating the store environment. This is the case in virtual stores, where customers entering the 3D space can decide on the number of aisles, type of equipment, manner of product display, logos, colours of the walls and floors, etc. (Wu et al., 2015,

<sup>6</sup> An interesting example of this novel idea are Coca-Cola's tests with vending machines which varied the price of the products depending on the temperature outside (Lee et al., 2011, p. 531).

- p. 545). In this way they can adapt the shopping environment to their preferences;
2. offering various forms of transactions by integrating traditional and online commerce. Today's customers expect to be offered the possibility of various combinations of different electronic formats (e-commerce and m-commerce) as well as traditional formats within a single retail company. This means that if the buying process was divided into stages, at each of the stages the above mentioned formats could be used interchangeably. Such a solution would allow customers to tailor the way a transaction is made to their own preferences, which is the essence of personalization. Thus, a customer could look at (and perhaps try on) a product in a bricks-and-mortar store, order it from the online store (because, for example, the traditional shop does not have the product in a particular colour), have the goods delivered by courier, and be able to return the products to the offline store.

## Conclusions

The personalization of offers addressed to mass customers has all the hallmarks of organizational, product and marketing innovation. Its implementation is undoubtedly a manifestation of a retailer's innovativeness. In general, the purpose of a company's innovative behaviour is to achieve their desired competitive position through offering a better quality of products/services and/or a better cost position in relation to their competitors. Personalization makes it possible to achieve both these outcomes, thus it has the potential to significantly improve the competitive position of a retail enterprise. However, such innovation carries the risk of lack of acceptance, which is connected with a growing sensitivity to issues relating to consumer privacy protection.

## References

1. Borusiak B., Pierański B., Romanowski R., Strykowski S. (2014), *Personalization of advertisement as marketing innovation*, Management: Science and Education, 1, University Publishing House, University of Zilina, Zilina.
2. Borusiak B., Pierański B., Romanowski R., Strykowski S. (2015), *Automatyzacja personalizacji reklamy internetowej*, Marketing i Rynek, 3, PWE, Warszawa.
3. Changchien S.W., Lee Ch.-F., Hsu Y.-J. (2004), *On-line personalized sales promotion in electronic commerce*, Expert Systems with Applications, 27: 35–52.
4. Da Silveria G., Borenstein D., Fogliatto F.S. (2001), *Mass customization: Literature review and research directions*, International Journal of Production Economics, 72: 1–13.
5. Gilmore J.H., Pine B.J. (1997), *The Four Faces of Mass Customization*, Harvard Business Review, 75, 1.

6. Grant G. (2015), *Personalization: Retail Marketing's Priority for 2015* (<http://blog.demandware.com/intelligence/personalization-retail-marketings-priority-for-2015>; accessed: 7.09.2015).
7. Hanson W. (2000), *Principals of Internet Marketing*, South West, Cincinnati, OH.
8. Imhoff C., Loftis L., Geiger J. (2001), *Building the Customer-Centric Enterprise, Data Warehousing Techniques for Supporting Customer Relationship Management*, John Wiley&Sons, New York, NY.
9. Johnson-Hillery J., Kang J., Tuan W.-J. (1997), *The difference between elderly consumers' satisfaction levels and retail sales personnel's perceptions*, *International Journal of Retail & Distribution Management*, 25, 4: 126–137.
10. Kemp T. (2001), *Personalization isn't a product*, *Internet Week*, 864.
11. Lee S., Illia A., Lawson-Body A. (2011), *Perceived price fairness of dynamic pricing*, *Industrial Management & Data Systems*, 111, 4: 531–550.
12. McCarthy I.P. (2004), *Special issue editorial: the what, why and how of mass customization*, *Production Planning & Control*, 15, 4: 347–351.
13. Mokrogulski M. (2008), *Dyskryminacja cenowa poprzez sprzedaż pakietową*, *Gospodarka Narodowa*, 9: 51–71.
14. Peppers D., Rogers M., Dorf B. (1999), *The One to One Fieldbook: The Complete Toolkit for Implementing a 1 to 1 Marketing Program*, Double Day, New York, NY.
15. Schwartz B. (2013), *Paradoks wyboru*, PWN, Warszawa.
16. *Shoppers Conflicted on How Personal to Get* (2015), Accenture (<https://newsroom.accenture.com/industries/retail/us-consumers-want-more-personalized-retail-experience-and-control-over-personal-information-accenture-survey-shows.htm>; accessed: 5.09.2015).
17. Szymkowiak A. (2014), *E-kastomizacja produktów – wykorzystanie narzędzi online w e-commerce*, *Marketing i Rynek*, 8, PWE, Warszawa.
18. *The Retailers Guide to Creating Personalized Shopping Experiences* (2014), Intel (<http://www.intel.com/content/dam/www/public/us/en/documents/guides/retailers-creating-personalized-shopping-experiences-guide.pdf>; accessed: 2.09.2015).
19. Vesanen J. (2007), *What is personalization? A conceptual framework*, *European Journal of Marketing*, 41, 5/6: 409–418.
20. Vesanen J., Raulas M. (2006), *Building bridges of personalization – a process model for marketing*, *Journal of Interactive Marketing*, 20, 1: 1–16.
21. Wu J., Kim A., Koo J. (2015), *Co-design visual merchandising in 3D virtual stores: a facet theory approach*, *International Journal of Retail & Distribution Management*, 43, 6: 538–560.



# Chapter 6

## Virtualization of Retailers' Behaviour Towards Customers as a Manifestation of Innovativeness in Retail Trade

Barbara Kucharska

**Barbara Kucharska:** Assistant Professor in the Department of Market and Consumption, University of Economics in Katowice, Faculty of Economics, Katowice, Poland

**Abstract:** The possibility for the use of advanced information technology, the Internet and mobile devices in retail has a huge impact on changing the behaviour of retail chains, and also their behaviour towards customers. IT solutions and growing customer expectations concerning the availability of commercial offers contribute to the virtualization of retailers' behaviour. Virtualization can be found mainly in the activities of the largest retailers, regardless of the sectors, the markets they operate in and the type of retail format.

In the study, selected commercial enterprises were research subjects. The analyses included in the paper concern the years between 2012 and 2016. The results presented for the analyses conducted relate to Poland.

In the paper, the following goals of a cognitive and descriptive character are assumed: the cognitive goal of the proposed paper is the identification of the reasons, areas and range regarding the virtualization of retailer chains behaviour towards customers; the descriptive goal of the paper is to indicate solutions applied by selected chains within such virtualization.

In the paper an assumption has been made that the virtualization of consumer behaviour is the main reason for the necessity of the virtualization of retail chains' behaviour. The scale and scope of virtualization depend on the format of stores the retailers' stock (among others hypermarkets, supermarkets, discount stores). The following research methods were applied for the purpose of implementing the assumed goals: a critical analysis of the literature on the subject, the results of own research concerning the virtualization of selected retail chains behaviour,

and the case study method that showed the best practices associated with virtualization in retail.

**Key words:** virtualization, retailers' behaviour, virtualization of consumers' behaviour

**JEL classification:** L 81

## Introduction

Innovativeness, understood as a tendency, an ability to create, implement and adopt new solutions can involve various areas of commercial enterprises – business, organization and management model instruments used for impact on the market. The innovativeness of commercial enterprises may manifest itself in the virtualization of their behaviour towards customers, when the individual elements of the broader trade offer are transferred to cyberspace – where consumers are present with increasing willingness and frequency.

The aim of this article is to identify the causes and methods in the virtualization of the behaviour of commercial enterprises towards customers and to present selected examples of virtualization regarding elements of this behaviour.

The paper will present in sequence the issues related to the virtualization of consumer purchasing behaviour and its importance for enterprises, the possibilities for the virtualization of retailers' behaviour and examples of solutions implemented by selected retail chains in Poland.

### 6.1. Consumer behaviour as a premise for the virtualization of retailers' behaviour

The virtualization of retailers' behaviour is the result of a progressive virtualization in the life of consumers, especially the virtualization of their buying behaviour. This involves the transfer of individual stages of this behaviour into cyberspace (Kucharska, 2015a, b). Depending on the needs and possibilities, the customer at different stages of the buying process "switches" between stationary and virtual places of presentation and the sale of products<sup>7</sup>. The implementation of individual stages takes place at a time convenient for the consumer – using desktop computers, laptops and mobile devices (smartphones, tablets)

<sup>7</sup> Stationary points of sale (shops, but also newsagents, petrol stations), online shops, online auctions, telephone and mobile applications, catalogues and on-line bulletins, traditional catalogues and newsletters, price comparison websites, classifieds, group shopping and buying clubs.

and the Internet<sup>8</sup>. A manifestation of the virtualization of the purchasing behaviour of consumers is the growing importance of shopping using mobile devices, also allowing the planning of purchases, obtaining information about products and the availability of their points of sale, creating and modifying shopping lists, and ordering products.

Particularly important for the virtualization of consumer behaviour is their commitment to social media. These media not only allow for the acquisition of information, but also provide customers with the opportunity to share their opinions – especially when an offer exceeds their expectations or in a situation of perceived post-purchase dissonance. Using solutions such as social networks, blogs, micro blogs, forums and discussion groups, VoIP, audio and video casts, customers are both suppliers and consumers of content (Zalega, 2015).

The virtualization of consumer behaviour in the retail trade largely depends on the type of products they buy, and particularly on how much consumers are able to determine the quality of these products from the perspective of a buyer on the Internet<sup>9</sup> (Śmigielka, 2013). The opportunity to evaluate products remotely largely determines the behaviour of retailers aiming to facilitate the choices made by consumers.

The scale and scope for the virtualization of purchasing behaviour also depends on the characteristics of the consumers, their generational membership and the trends they follow. The personality of a consumer, the specific skills that allow them to enter and use cyberspace, as well as the “compatibility” of virtual solutions with their needs, values, experiences and lifestyle are significant factors (Saaksjarvi, 2009).

To a significant extent, the presence in cyberspace of generation Y (born between 1981 and 1994) and generation Z (born after 1995) will increase the virtualization of consumer behaviour – the more so that these generations extensively use the technologies to enable a seamless, immediate transfer of individual phases into virtual space (Mazurek-Łopacińska and Sobocińska, 2015). A fascination with new technologies, high activity on forums, as well as the desire to immediately meet the needs and expectations of matching a trade offer to their problems

---

<sup>8</sup> The virtualization of purchasing behaviour using mobile devices is favoured by such characteristics of these devices as portability, a personal “relationship” with the owner (the “attachment” of the owner to the device), networked and immediate information (text and pictorial), as well as the convergence of features and services (navigation, email). The report “mShopper. Mobile shopping among Poles” shows that mobile devices were used in 2014 by 44% of Poles and over 60% of Internet users. On average, they used 5 advanced functionalities of their smartphones and tablets. 75% of Internet users declared shopping on the Internet; while 24% did so portably, at least once in the last six months they made a purchase using a mobile device, i.e. a smartphone or tablet. In 2016, 60% of Poles had a smartphone, and 24% a tablet ([www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf](http://www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf)).

<sup>9</sup> Taking into account the criterion of the possibility of product evaluation by buyers on the Internet, the following can be distinguished: consumer products easy to assess (quasi-commodity goods) (e.g. books, CDs, movies); consumer goods difficult to assess remotely (“look and feel” goods) (e.g. perfumes, cosmetics, clothes); and consumer products of other kinds (look and feel with variable quality) (e.g. used cars, works of art).

(and especially an offer that will solve their problems) will promote the further virtualization of consumer behaviour.

In Poland, according to the report “E-commerce in Poland in 2015. Gemius for E-Commerce”, nearly 9.5 million households are equipped with Internet, 76.5% of consumers use the Internet, and at least 55% of consumers have made an online purchase at least once ([www.gemius.pl/files/reports/E-commerce-in-Poland-2015.pdf](http://www.gemius.pl/files/reports/E-commerce-in-Poland-2015.pdf)). Consumers use the solutions available in the virtual world efficiently. They value electronic sales channels for the opportunity to make purchases at any time, for their convenience and attractive prices ([www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf](http://www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf)).

In cyberspace, within purchasing behaviour, customers exhibit various types of activity, which include:

- seeking ideas, inspiration, information about products and their availability, points of sale, conditions of transactions, payments, deliveries, warranties and checking consumer and expert reviews of the products and the places of their sales,
- comparing retailers’ offer in its many dimensions,
- using applications for creating and managing their own shopping lists, loyalty programmes, group buying services and social networking sites,
- placing orders and making payments,
- informing others about their purchases and expressing their opinions about a product and the place of its purchase.

Transferring individual, and sometimes even all, stages of purchasing behaviour into cyberspace, forces retailers to be present in this sphere also.

## 6.2. Virtualization of the behaviour of traders towards customers

The behaviour of traders consists in their reactions to certain internal (stimuli) and external factors (environmental conditions). Through their reactions, trading companies respond to these factors or transform them. These behaviours are actions that allow companies to implement their goals (Kędzior and Karcz, 1998). Traditionally, behaviour consists of such structural components as the following: objectives, choice options, and the decision-making procedures or techniques used in making choices from the available options in the pursuit of objectives. In the case of the behaviour of economic operators, changes occur relatively slowly, and are modified in the long term in the process of learning and acquiring experience, but also influenced by changes in the environment. The behaviour of traders may be viewed in a subject-object (structural) and functional arrangement, regarding the type and the scope of actions. The behaviour towards customers fits into the functional aspects of traders’ behaviour; among them,

of particular importance, are those associated with the use of marketing instruments and shaping customer services in the retail industry.

Virtualization, understood as a process in which tasks and functions are based on a virtual environment (Kucia, 2014), in the case of the behaviour of traders

Table 1. Customer service in a commercial enterprise - potential elements in cyberspace.

Stages of customer service		
Pre-transaction	Transaction	Post-transaction
<ul style="list-style-type: none"> <li>- examination of customer needs, preferences and expectations,</li> <li>- information about products, their features and prices,</li> <li>- presenting the possibilities of using the products,</li> <li>- presenting a complementary and substitutive offer</li> <li>- providing opportunities to check product availability and place of purchase (in the case of stationary units, location and opening hours)</li> <li>- promoting the offer,</li> <li>- providing information on products previously purchased by customers,</li> <li>- ensuring access to information about the degree of customer commitment to loyalty programmes</li> <li>- providing customer and expert feedback,</li> <li>- creating the possibility of planning purchases and making a shopping list,</li> <li>- information about the terms of transaction, delivery terms and payments,</li> <li>- responding to inquiries,</li> <li>- counselling.</li> </ul>	<ul style="list-style-type: none"> <li>- providing access to an order form,</li> <li>- placing orders,</li> <li>- settlement of transactions,</li> <li>- providing a variety of payment options (bank transfer, fast money transfers, credit card payment, mobile application payment, SMS/MMS, dedicated mobile payment applications),</li> <li>- information about the availability of substitute and complementary products,</li> <li>- promotions using sales promotion tools,</li> <li>- advice via a web page and mobile applications and avatars.</li> </ul>	<ul style="list-style-type: none"> <li>- Internet services,</li> <li>- receiving and handling complaints,</li> <li>- gathering information on the opinions and proposals of customers regarding the offer,</li> <li>- providing loyalty programmes, regular customer clubs,</li> <li>- proposing other products in the framework of cross-selling,</li> <li>- sending a newsletter</li> <li>- commitment to the retailer through participation in computer games, contests, offer assessment, consumer consulting,</li> <li>- creating online communities centred around issues of importance to consumers and their interests.</li> </ul>

Source: Own study.

towards customers, means the transfer of individual elements of these behaviours into cyberspace. The virtualization of traders' behaviour can be related to each stage of customer services and a significant part of the service elements used in these stages (Table 1).

The virtualization of traders' behaviour has been made possible using modern information technology solutions and is undoubtedly a response to the progressive virtualization of consumers, especially the purchasing behaviour of customers in the retail trade.

### 6.3. Examples of virtual solutions implemented by retailers

Symptoms regarding the virtualization of retailers' behaviour can be found in the activities of all the major retail chains operating in Poland, regardless of the type of their establishments. The type of retail outlets differentiates its capabilities and the scope of transferring this behaviour to cyberspace. Important for the customer, the convenience of shopping, enforces the implementation of solutions which provide convenience.

One of the leaders in the virtualization of behaviour towards consumers is Tesco. The Tesco Zakupy platform has been functioning in Poland since 2012<sup>10</sup>, and the retailer offers a wide range of products (of which it selects the newest ones to be sent to customers) at the same prices as in stationary outlets, adequate packaged and delivered; participation in the loyalty programme; and a seamless customer service. It also promotes e-shopping, including the campaign "High Five" ["Przybij piątkę"].

Among the Tesco solutions "embedded" in the virtual consumer world, there is a mobile app allowing access via phone or tablet to promotional newsletters; a Tesco e-shopping application; a mobile Clubcard application; a virtual game "My Little Tesco" ["Moje Małe Tesco"]; and the "Healthy appetite" program ["Zdrowy apetyt"] with a nutrition plan application. As part of the loyalty programme Tesco Club Card, the retailer has prepared a mobile application that allows you to store a card in an electronic version, to access vouchers and coupons with the possibility of printing them, to check your points, to obtain information about the latest promotions, and to manage your details.

Taking into account the important trends in consumer behaviour referred to as "the world is a game", Tesco has created a mobile application with the virtual game My Little Tesco. Its participants can manage a Tesco store, competing with other players. The game allows you to include in the offer promotions actually found available in Tesco stores. In the virtual world, players can familiarize themselves with the products and the latest retailer's offer. The game features over 100 levels, 80 different characters, and with many new agreements

<sup>10</sup> In other countries in terms of development of multi-channel sales, Tesco has also introduced a service called "click & collect".

to conclude every week. My Little Tesco is a game for the community that allows for competition with friends ([www.microsoft.com/pl-pl/store/apps/moje-male-tesco-pl/9nblggh5f9gx](http://www.microsoft.com/pl-pl/store/apps/moje-male-tesco-pl/9nblggh5f9gx)).

Another way to build customer relationships by Tesco using virtual solutions is the nutrition program "Healthy appetite". As part of the program, Tesco publishes information about the principles of healthy eating, recipes, and provides a mobile application on the Internet. The application is used to prepare a nutrition plan tailored to a specific customer, to remind them of the need for drinking water and of meal times, and allows for instant access to the components of the nutrition plan. It also provides access to many recipes tailored to a specific customer.

Alma is another retailer whose actions include numerous activities indicating the virtualization of behaviour towards consumers, and at the same time going beyond online sales with home deliveries. Alma was the first to introduce not only the possibility of purchasing food products in Poland over the Internet, but also ordering them through an application on the Smart TV platform. Placing an order is simple – it only requires the delivery postcode, product selection, logging in, as well as selecting the delivery date and form of payment. With the Alma24 application, customers can filter products (e.g. by price level), and create and edit a shopping list. They also obtain information about Alma24 promotions. Delivery of the purchased products is possible on the date of the order.

Similarly to Tesco, in adapting to consumer trends concerning attention to health and related "wellness" lifestyles, Alma undertakes numerous actions in this area under the auspices of the Alma Pokochaj Życie Foundation. It promotes and supports healthy eating and changing eating habits, also within the Academy of Taste [Akademia Smaku] project. Consumers can take advantage of these proposals by visiting the retailer's website.

In response to consumers' expectations regarding convenient and time-saving shopping, Alma introduced, as part of a click and collect service, the option to collect the products purchased over the Internet; not only in selected Alma outlets, but also at gas stations. Coolomats allow customers to store selected products and collect them at a place and time convenient to them – usually on the way home.

The Alma website also provides information on current promotions, thematic catalogues, gift sets (which can not only be ordered via the Internet, but also independently developed) and gift cards. Alma gift card is a form of electronic voucher for the purchase of products available in local stores. Alma has also introduced a mobile application allowing the ordering of available products from an online delicatessen via the phone, thus reducing shopping time due to the ability of creating shopping lists and scanning product bar codes. Through the Alma website, you can become a member of Connoisseur Club [Klub Konesera] – a loyalty programme that permits access to promotions not only in Alma shops, but also promotional offers from the retailer's partners.

The virtualization of retailers' behaviour is also noticeable in the activities of discount stores, especially Biedronka and Lidl. Biedronka extensively uses its

website to post information on the availability of stores and their offers, as well as culinary suggestions. Additionally, it has introduced a mobile application that allows quick access to information about promotions and new products, the location of the nearest branch and creating a shopping list. The application allows you to customize notifications to the preferences of individual customers – selecting an offer that the customer may be interested in. Like other chains, Biedronka offers its clients the opportunity to acquire knowledge about nutrition and provides culinary suggestions. The company also develops online solutions involving customers in the activities of its outlets. An example is the “Testujemy” platform where customers participate in the recommendations of existing products, assessments of new packaging and testing new products. Biedronka does not conduct tests related to the implementation of an online store, but collects information and prepares the tools for implementation of such projects in the future.

The virtualization of retailers’ behaviour towards consumers takes place not only in the offers of hypermarkets, supermarkets and discount stores offering FMCG products. Numerous examples can be found in retailers operating in other industries. An example would be Leroy Merlin – besides stationary store and phone sales, it runs an online shop and makes a full catalogue of products available on-line. The retailer’s online store is adapted to smartphone operation – operating a mobile version of the page by touch is trouble-free, as scaled page navigation is provided, and there is an option to purchase and pay using mobile devices as well as find the nearest store using geolocation. Leroy Merlin also has a dedicated application for smartphones / tablets.

The selection of the many examples of virtualization of retailers’ behaviour towards consumers shows retailers taking numerous steps to transfer individual elements of the commercial offer into cyberspace. Based on observations, these activities include:

- providing the customer with quick access to comprehensive information on the retailer, product offerings, pricing, and promotional activities – including using a website which is utilised by retailers regardless of the type of their outlets. Rapid acquisition of information is also possible via a smartphone or tablet thanks to specially prepared mobile applications;
- making it easier to make purchases due to the options of preparing a shopping list, selecting the form of payment and the method of product delivery to the customer, or by identifying places where the client themselves can pick up their purchases;
- enhancing the shopping experience of customers by providing them with knowledge about activities and healthy nutrition, proposing culinary solutions, as well as involving them in the process of evaluating new and existing products;
- utilising personalized offers and information, adapting them to specific customer characteristics, needs and expectations; solving customer problems related not only to reaching the place of purchase,

but also planning their shopping, taking over from customers in terms of remembering dates;

- building relationships with customers by creating the possibility of their involvement in games, participating in competitions directly related to the activities of the retailer;
- creating communities whose members share interests that coincide with the retailer's offer.

Some of those identified examples of traders' activities in the field of virtualization are related only to the transfer of the offer presentation, and the Internet is used as an additional means of communication between retailers and customers. The presented examples also indicate the use by retailers of modern information technology to create solutions to adapt their offer to the expectations of individual customers (quantity and related information, method of purchase, delivery/receipt, payment), as well as to involve customers in creating the best solutions for the retailer and by building a relationship with them.

## Conclusions

In connection with the progressing and expanding virtualization of consumer behaviour, one might expect a further intensification of retailers' actions in terms of creating a virtual commercial offer. Since predictions on the substitutability of stationary trade by e-commerce have not come true, it will be necessary to develop solutions based on providing parallel and above all consistent elements of the commercial offer in every aspect – the range of availability, level of prices, promotions and customer services in both the real and virtual world.

The development of the multi-channel retail trade expected by customers, however, is difficult due to the severe restrictions in terms of introducing consistent multi-channel solutions in retail; related to technological solutions<sup>11</sup>, operational multi-processes (differences in pricing policy, the process of customer services, marketing communications), logistics, management and staff (lack of determination by managers), and finance (reconstruction of IT infrastructure and changes in logistics solutions). In such a situation, the virtualization of behaviour towards customers is one of the most important manifestations of innovativeness in retail businesses.

---

<sup>11</sup> Lack of integration between e-commerce platforms and retail systems, lack of integration in sources of information about customers and their transactions in stationary and electronic trading, lack of consistency in information provided to the customer at various points of contact (product availability, promotions, price level) and that available to the sales personnel.

## References

1. Kędzior Z., Karcz K. (1998), *Modele zachowań gospodarstw domowych i przedsiębiorstw (lata 2000–2010)*, Centrum Badań i Ekspertyz, Akademia Ekonomiczna im. K. Adamieckiego w Katowicach, Katowice.
2. Kucia M. (2014), *Wirtualizacja działalności handlowej przedsiębiorstw*, Marketing i Rynek, 8, Warsaw.
3. Kucharska B. (2015a), *Wirtualizacja zachowań nabywczych jako przejaw innowacyjności konsumentów w handlu detalicznym*, Marketing i Rynek, 10, Warsaw.
4. Kucharska B. (2015b), *Multichannel retailing – consumer’s and retailer’s perspective*, [in:] *Handel wewnętrzny w Polsce 2010–2015*, IBRKiK, Warsaw.
5. Łabuz K., *Alma uruchamia zakupy przez telewizor, 04/06/2014 Omnichannel* (<http://evigo.pl/7576-alma-uruchamia-zakupy-przez-telewizor/>; accessed: 24.08.2015).
6. Mazurek-Łopacińska K., Sobocińska M. (2015), *Wirtualizacja komunikacji marketingowej w kontekście zmian pokoleniowych i zmian stylów życia*, [in:] G. Rosa, A. Smalec, *Marketing przyszłości. Trendy. Strategie. Instrumenty*. Komunikacja marketingowa przedsiębiorstw z otoczeniem. Zeszyty Naukowe Uniwersytetu Szczecińskiego, 866, Problemy Zarządzania, Finansów i Marketingu, 39, Szczecin.
7. Saaksjarvi M. (2003), *Consumer adoption of technological innovations*, European Journal of Innovation Management, 2.
8. Śmigielńska G. (2013), *Wirtualizacja a budowanie przewagi konkurencyjnej w handlu*, [in:] L.W. Zacher, *Wirtualizacja. Problemy, wyzwania, skutki*, Poltext, Warsaw.
9. Zalega T. (2015), *Innowacje a zachowania konsumpcyjne*, [in:] A. Olejniczuk-Merta, *Konsumpcja i innowacje*, IBRKiK, Marketing i Rynek, Warsaw.
10. [www.dlahandlu.pl/handel-wielkopowierzchniowy/wiadomosci/alma-wpisuje-sie-w-trend-convenience-i-zmniejsza-powierzchnie-sklepow,49327.html](http://www.dlahandlu.pl/handel-wielkopowierzchniowy/wiadomosci/alma-wpisuje-sie-w-trend-convenience-i-zmniejsza-powierzchnie-sklepow,49327.html) (accessed: 19.03.2016).
11. [www.almamarket.pl](http://www.almamarket.pl) (accessed: 3.03.2016).
12. [www.biedronka.pl/pl](http://www.biedronka.pl/pl) (accessed: 15.03.2016).
13. [www.ecommercepolska.pl/files/8914/2529/1395/raport\\_mShopper\\_Polaczynazakupachmobilnych\\_luty2015\\_pn.pdf](http://www.ecommercepolska.pl/files/8914/2529/1395/raport_mShopper_Polaczynazakupachmobilnych_luty2015_pn.pdf) (accessed: 20.03.2015).
14. [www.gemius.pl/files/reports/E-commerce-w-Polsce-2015.pdf](http://www.gemius.pl/files/reports/E-commerce-w-Polsce-2015.pdf) (accessed: 20.03.2016).
15. [www.microsoft.com/pl-pl/store/apps/moje-male-tesco-pl/9nblggh5f9gx](http://www.microsoft.com/pl-pl/store/apps/moje-male-tesco-pl/9nblggh5f9gx) (accessed: 14.03.2016).
16. [www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf](http://www.pwc.pl/pl/pdf/klient-w-swiecie-cyfrowym-pwc.pdf) (accessed: 20.03.2016).
17. [www.tesco.pl](http://www.tesco.pl) (accessed: 18.03.2016).

# Chapter 7

## Social Media as a Tool for Creating Value for Customers in Electronic Commerce

Marcin Lewicki

**Marcin Lewicki:** Assistant Professor in the Department of Commerce and Marketing, Poznań University of Economics and Business

**Abstract:** The principal aim of this paper is to present social media as a tool for creating value for customers in e-commerce. The first part focuses on presenting the issue of creating customer value in online retailing. Due to the dynamic changes which occur in this area, this issue is rarely discussed in the literature. Next, the paper defines the concept of social media, discusses their importance in today's world, and presents a classification of the tools which can be used within them. It is emphasized that the role of social media is continuously increasing. It is assumed that the optimal approach to the classification of tools is to categorise them according to their functions, which carries a much lower risk of obsolescence. The last part of the article refers to presenting social media as a tool for creating value for customers. The author's research revealed that respondents rate them as a tool of moderate importance in creating this value; however, the need for further research in this area is emphasised.

**Keywords:** e-commerce, value for the customer, social media, online consumer behaviour

**JEL classification:** L81

### Introduction

Social media, defined as forms of electronic communication through which users create online communities to share information, ideas, personal messages and other content (Merriam-Webster Dictionary), are each year becoming an in-

creasingly important part of the modern world. This is evidenced not only by the constantly growing number of people using the various forms of social media (according to data for January 2016, this number has already exceeded 2.3 billion people (Kemp, 2016)), but also by the steady increase in the interest and involvement of many companies in this area (Patel, 2016).

Enterprises operating in the e-commerce format, in the sense that they were already present in the online environment, were naturally the first to adopt various social media tools for their activities. Bearing in mind that there is enormous competition between e-commerce enterprises, it seems reasonable to examine the significance of social media for creating value for customers. Customer value is undoubtedly one of the key elements in the context of building customer satisfaction and loyalty (Woodruff, 1997). Accordingly, a company's ability to create this value, especially in the long term, may determine the survival and success of a company in the market.

The principal objective of this article is to present social media as a tool for creating value for customers in e-commerce. Specific objectives include exploring the issue of creating value for customers in online commerce, presenting the basic forms of social media, as well as discussing the essence and significance of social media in the modern world.

In order to meet the above objectives, it was necessary to use data from both primary and secondary sources. As regards secondary sources, the basic method of collecting data was a literature review, principally information contained in numerous reports on social media. The data representing primary sources were obtained using the indirect survey method, i.e. an online survey (Kaczmarczyk, 2011).

## 7.1. Value for customers in electronic commerce

Electronic commerce, briefly defined as the buying or selling of products and services via the Internet, began to feature in the popular consciousness with the appearance on the market of the first e-commerce companies such as Amazon and eBay at the end of 1994 and the beginning of 1995. Although over 20 years have passed from the establishment of these companies, issues relating to conducting business in an online environment remain the subject of numerous publications. These focus mainly on two areas: the use of specific business models (Szpringer, 2012; Doligalski, 2014) and strategies (Ziemba, Olszak, 2007; Chaffey, 2016); and practical advice with regard to developing and operating online businesses (Hipsz, 2012; Smaga, Bonek, 2015).

The issue of value for customers, although first explored by researchers more than 40 years earlier than issues relating to e-commerce<sup>12</sup>, still attracts, along with e-commerce, continued interest. In the contemporary literature on

---

<sup>12</sup> This term was first introduced into the literature on management by P. Drucker in 1954 (Drucker, p. 71–72).

marketing, customer value is often a starting point for further discussion, with the main emphasis being usually placed on the process of creating this value (Mruk, Stępień, 2013). Undoubtedly, from the perspective of any business, finding an answer the question of how to create value for customers should be regarded as the *sine qua non* of market success. Each market offer can be described in terms of two elements, namely its value and its price. Importantly, an increase or decrease in price does not increase the value of the offer, but may affect the willingness of consumers to take advantage of it. A customer will be more inclined to choose an offer in which the ratio of the value (in a broader sense – the benefits) to the price (in a broader sense – the cost) will be more favourable (Fig. 1) (Anderson, Narus, 1998).



Figure 1. Value and price as elements of a market offer. Source: (Anderson, Narus, 1998).

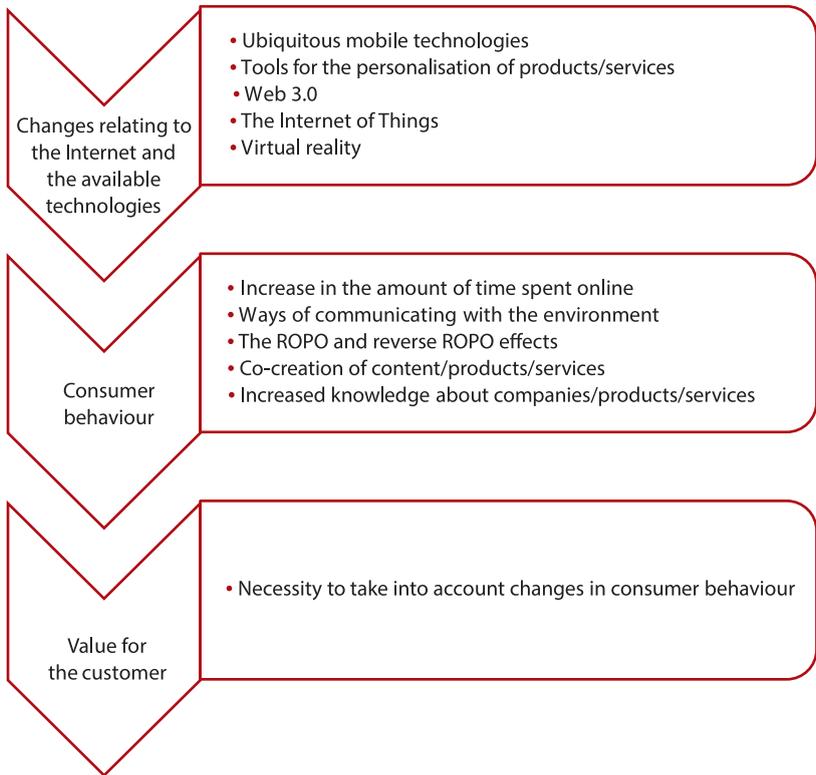


Figure 2. Value for the customer in view of changes relating to the Internet and the available technologies. Source: Own compilation.

Undoubtedly, one of the main causes of the continuing interest in the above-mentioned concepts is the dynamic changes associated with them. Changes relating to the Internet and the available technologies have led to changes in the behaviour of consumers, which in turn has led to changes in what consumers perceive as value providers (Fig. 2). In view of this, it seems surprising that the issue of creating value for customers in e-commerce (or even more broadly – on the Internet) is rarely discussed in the literature (Seybold, Marshak, 1998; Tapscott, 2010), and quite often restricted to the company perspective and such related concepts as customer value or customer life cycle (Johnson, Weinstein, 2005; Doligalski, 2013).

Looking at electronic commerce through the prism of online stores, which is the most common business model used on the Internet (according to a forecast by Sociomantic Labs, their number in Poland should exceed 23.5 thousand in 2016 (Barometer e-commerce, 2016)), it is possible to identify several basic tools for creating value for the customer<sup>13</sup>. One of these tools, bearing in mind their increasing importance as a communication channel, is social media.

## 7.2. The essence, significance and forms of social media

Social media can be defined as a group of web applications which are based on the ideological and technological assumptions of Web 2.0 and which enable the creation and sharing of user-generated content (Kaplan, Haenlein, 2010, p. 61). Under this definition, the essence of social media, the cornerstone of which is the concept of Web 2.0, comes down to the involvement of Internet users, who not only create content but also comment on it and disseminate it.

According to data from the beginning of 2016 (Kemp, 2016), almost 1/3 of the world population use social media (31%), which represents a 10% increase over the past 12 months. The report states that currently there are 3.42 billion Internet users, 2.31 billion social media users, and 1.97 billion mobile social media users in the world. As regards the channels used by Internet users, the most popular ones are those created by Mark Zuckerberg, i.e. Facebook (1.59 billion active users monthly), Whatsapp (900 million active users monthly) and Instagram (400 million active users monthly). In terms of the average time spent on social media every day, in first place are the Philippines (3.7 hrs), followed by Brazil (3.3 hrs) and Mexico (3.2 hrs). Polish users spend an average of 1.3 hrs each day on social media.

These figures undoubtedly show that social media are becoming an increasingly important part of people's lives. This does not mean, however, that they are limited only to people's presence and activity on Facebook, because in fact they include a number of other solutions. When attempting to classify the tools

<sup>13</sup> In earlier publications the author discussed three such tools, namely the architecture of an online store, the offering of an online store, and the information available on a store's website.

used on social media, it seems reasonable to follow an approach according to which the optimal division is according to the function performed. The division into specific tools does not make sense in the long term for an obvious reason: the enormous dynamics of change, which means that specific tools may quickly gain in importance, but their significance may just as rapidly decline (Królewski, Sala, 2014, p. 78). Thus, according to their functions, the following tools can be distinguished:

- tools for presenting views and opinions (e.g. blogs)
- tools for sharing content (e.g. YouTube, Instagram, Dropbox)
- tools for building and maintaining relationships (e.g. Google+)
- tools for communication and discussion (e.g. Internet forums)
- tools for posting current information and comments (e.g. Lives-tream, Twitter)
- tools for co-creation and cooperation (e.g. Wikipedia, World of War-craft)

In the context of the proposed classification it must be emphasized that the common denominator of social media tools is cooperation, which often involves consumers themselves co-creating products and services (Królewski, Sala, 2014, p. 78). It is also worth noting that the phrase “tools of social media,” especially in online sources, is commonly equated only with applications that are used for optimising activities in this area rather than actual tools (Daisyme, 2016).

### 7.3. Social media and e-shops

Social media are an essential tool for building relationships both between a store and its customers and between the customers of a given store. Social media offer companies an opportunity to obtain important information connected with consumers’ experiences as well as providing a platform where both parties can co-create value. In addition, they fulfil an important function as a channel for the promotion and dissemination of information about the product (offering) of an online shop. Relating social media to the classic concept of the marketing mix (the 4Ps), they can be considered to be a derivative of both promotion and product.

The analysis of social media as an instrument for creating value for customers was primarily based on an assessment of the following elements:

- the possibility of consulting a specialist before making a purchase,
- the possibility of co-creating the content within a store’s website,
- the presence of a store on customer opinion sites,
- a forum for contacts with customers on a store’s website,
- the presence of a store on social networks.
- It was assumed that creating value for customers can be executed in the following main ways:
- through involving customers in the process of creating it,

- through utilising the experiences of customers,
- through developing in customers a sense of belonging to a given community.

Taking into account the statistical data quoted above, it is clear that building a community around an e-commerce enterprise should play an increasingly important role in companies' activities. An inspection of the websites of specific e-stores, regardless of the sector, reveals that they definitely make a point of informing potential customers about their affiliation to a given medium. Usually this is done simply by placing so-called share buttons on the store's website, which transfer the visitor directly to the store's site on social media. E-shops commonly create a presence on social networks in particular. Making use of the simple rating systems available on social networks (e.g. clicking the "Like" button on Facebook), shops also show, next to the information about belonging to a specific network, data on the number of people who have a positive opinion about them. Without doubt, social media today are the perfect tool for the promotion of an e-shop among new customers. However, it is a mistake to restrict a presence on social media exclusively to promotional purposes (though, unfortunately, this is still quite often the case). In the context of creating value for the customer, it should be emphasised that social media can provide information that is very useful from the perspective of e-shops (e.g. relating the preferences of customers or their experiences with the company/product/service, etc.). Customers who belong to a store's community within a specific network usually have a strong tendency to share their experiences and comments with the other members. Furthermore, the direct nature of communication with customers means that this information can be obtained relatively quickly.

An interesting example of the use of selected social media tools in the context of creating value for customers is [rockmetalshop.pl](http://rockmetalshop.pl) ([rockmetalshop.pl](http://rockmetalshop.pl)), which through the use of those tools offers its customers some additional possibilities:

- on the shop's forum customers discuss topics related not only to music but also to, for example, art and culture (in addition, the users can place advertisements for buying/selling/exchanging products),
- the customer's opinions about the products purchased in the shop are prominently displayed; additionally, the shop has created a photo gallery containing pictures of customers with the products purchased in the shop,
- consumers can verify the shop on the basis of opinions posted on an independent customer opinion site – [opineo.pl](http://opineo.pl).

There can be no doubt that social media as a tool for creating value for customers perform an important function in terms of building relationships between companies and their customers, which, in view of the frequently emphasized in the literature necessity of involving customers in the process of co-creating both value and the product itself (this is mentioned by, among others, D. Tapscott, K. Rogoziński, K. Łopacińska-Mazurek, P. Kotler and M.R. Solomon), provides an additional rationale for online shops to undertake activities in this area.

## 7.4. The importance of social media as a tool for creating value for customers in e-commerce

An attempt to determine the importance of social media as an instrument for creating value for customers was based on the author's own research (a quantitative study) conducted by means of an online questionnaire. The general characteristics of the study are presented in Table 1.

The questions included in the questionnaire did not refer directly to the issue of value for customers and were constructed on the following assumption: if the analysed element is important for the customer when making a purchase in a given e-shop, it should also provide value for the customer. The adoption of this assumption was dictated primarily by the results of qualitative research and the results of a pilot study that preceded the quantitative study proper. When asked directly about creating value for the customer, the respondents had serious problems with understanding the questions.

The overall assessment of social media<sup>14</sup> as a tool for creating value for customers was the result of the individual ratings indicated by the respondents in relation to the basic elements identified within this tool.

As regards assessing the various components of social media in terms of the average values of the respondents' ratings (Fig. 3) it should be noted that, in accordance with the adopted scale and assumptions<sup>15</sup>, one of the five elements

Table 1. General characteristics of the author's study on creating value for customers in e-commerce.

Time scope	From 01.02.2012 to 30.06.2012
Object	Customers of online stores in Poland
Subject	Creating value for customers in e-commerce
Sample size	336 people (202 women, 134 men)
Type of sampling	Random
Number of questions	23 questions (most of them based on a five-point Likert scale)
An example question	Evaluate the impact of the individual elements connected with social media on making a purchase in the shop

Source: Own compilation.

<sup>14</sup> The analysis and evaluation of an e-store's information as a tool for creating value for the customer was conducted in terms of percentage distributions of responses depending on various criteria (selected as a result of statistical analyses), and average values of the respondents' ratings (from 1 "completely unimportant" to 5 "very important").

<sup>15</sup> The evaluation of the importance of an e-store's information for creating value for the customer was conducted in terms of the average value of the respondent's ratings according to the following scale:

average value  $\varepsilon < 1; 1.5$  = > element of no importance

average value  $\varepsilon < 2; 2.5$  = > element of little importance

average value  $\varepsilon < 2.5; 3.5$  = > element of moderate importance

average value  $\varepsilon < 3.5; 4.5$  = > element of great importance

average value  $\varepsilon < 4.5; 5$  = > element of very great importance

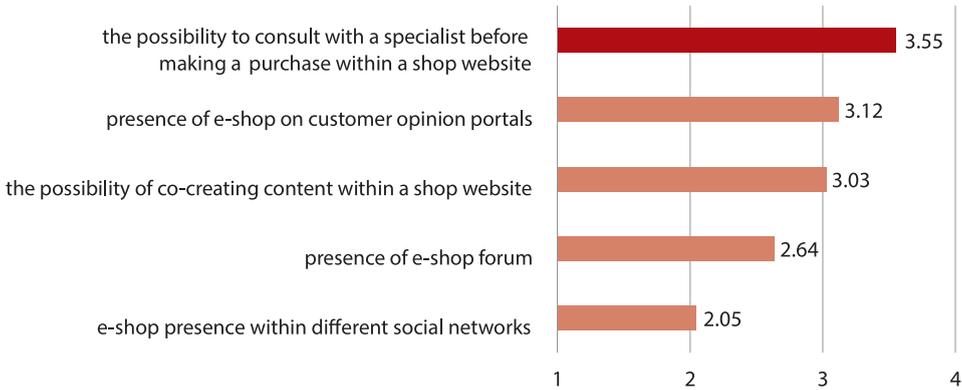


Figure 3. Assessment of the elements of social media in terms of the average values of the respondents' ratings.  
Source: Own compilation.

could be rated as important, three as moderately important, and one as unimportant in terms of creating value for the customer.

An analysis of the respondents' ratings with regard to the studied factors revealed correlations between the following elements:

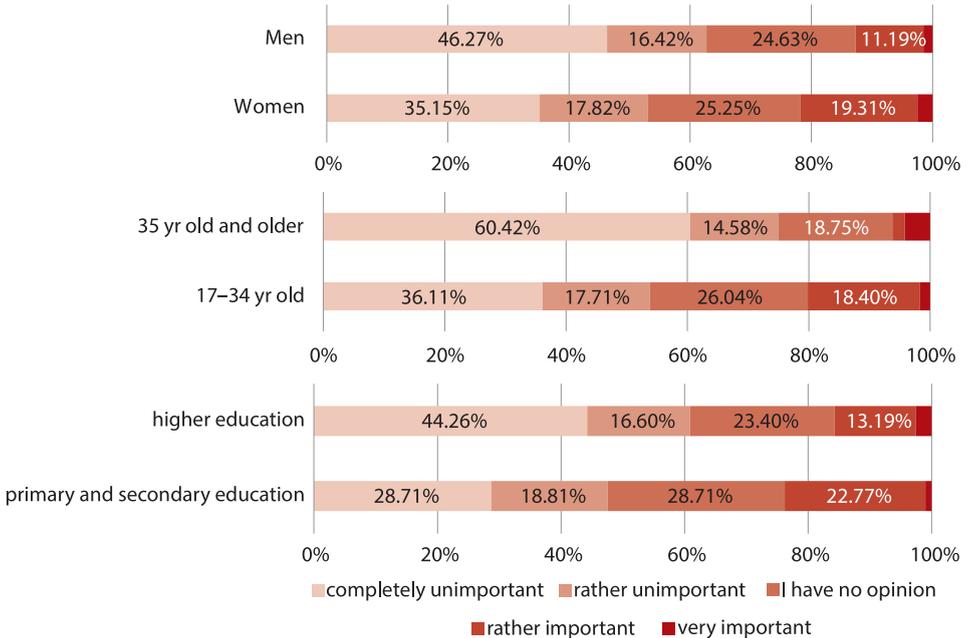


Figure 4. Assessment of an e-shop's presence within different social networks according to gender, age and level of education.  
Source: Own compilation.

- An e-shop’s presence within different social networks correlated with gender, age and the level of education (Figure 4); this element was assessed as relatively more important by women, younger people, and people with a lower level of education;
- Presence of an e-shop forum correlated with gender, age, the level of education, and the book and multimedia sector (Figure 5); this element was assessed as relatively more important by women, younger people and people with a higher level of education; and as less important by consumers buying books and multimedia;
- The possibility of co-creating content within a shop’s website correlated with age and the level of education (Figure 6); this element was assessed as relatively more important by younger people and those with a lower level of education.

As regards the findings of the quantitative studies, a somewhat surprising one was the respondents’ relatively low assessment of the importance of social media as a tool for creating value for customers. It should be noted, however, that one of the main reasons for this could be the fact that the study used random

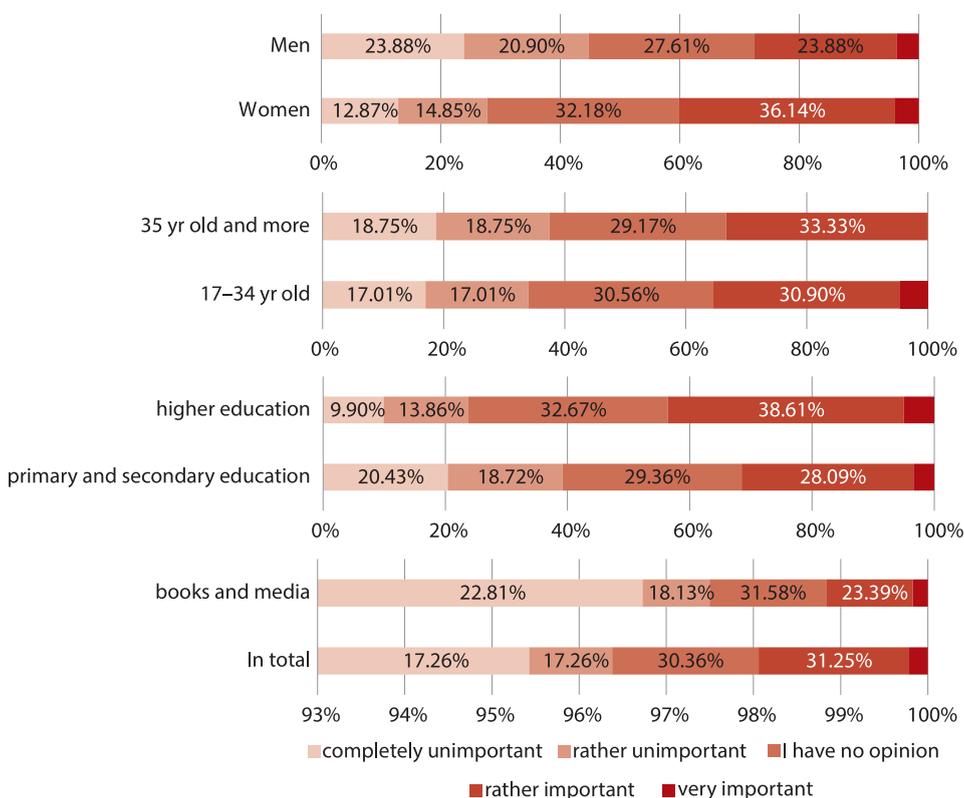


Figure 5. Assessment of the presence of an e-shop forum according to gender, age, level of education as well as book and multimedia sector.

Source: Own compilation.

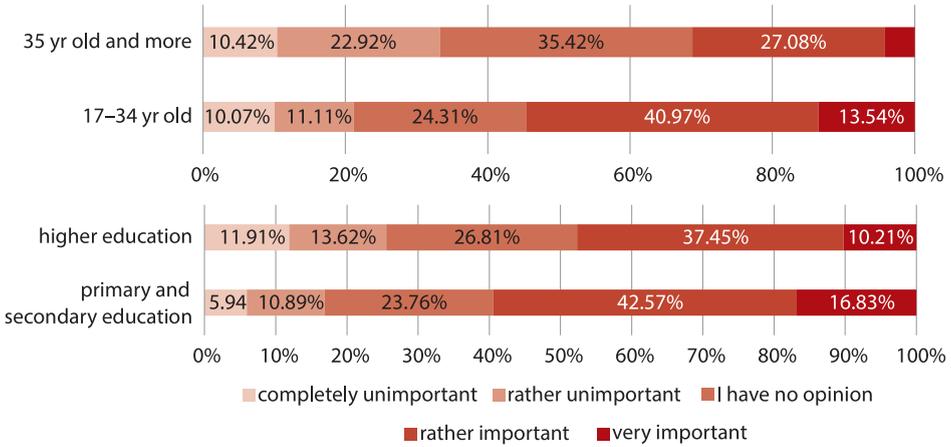


Figure 6. Assessment of the possibility of co-creating content within a shop's website according to age and level of education.

Source: Own compilation.

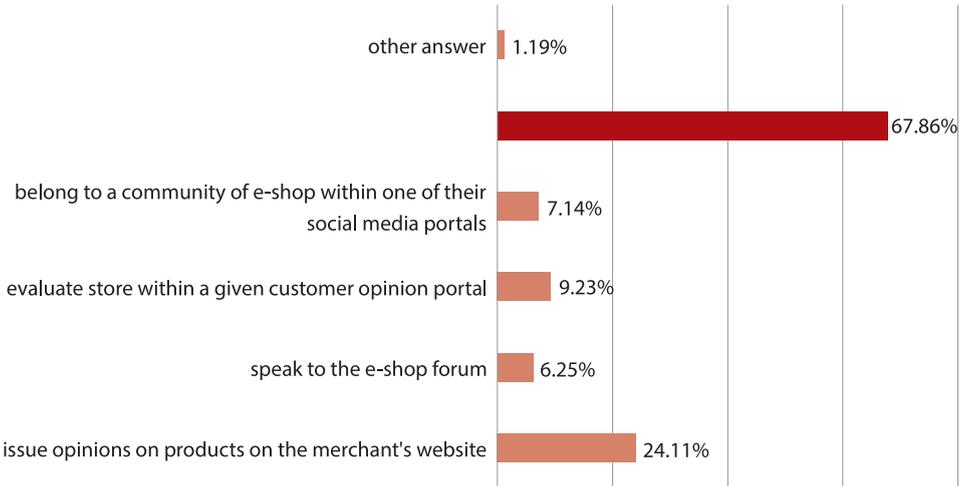


Figure 7. The degree of respondents' involvement in building an online shop community. Source: Own compilation.

sampling. As shown in Figure 7, the population for the study consisted mainly of people who described their attitude to social media as passive (67.86% of the respondents)<sup>16</sup>. It can be assumed with a high degree of probability that the assessment would be radically different if the percentage indicated referred to people with a greater degree of involvement in social media.

<sup>16</sup> Therefore the author suggests that, in the future, further studies should be conducted using the method of purposive sampling and selecting people who describe their attitude to social media as "actively participate".

## Conclusions

To sum up, social media as a tool for creating value for customers can be an important part of the strategies of modern companies operating in the field of electronic commerce. All available reports relating to both e-commerce and social media clearly indicate a steady increase in their importance among Internet users. In the context of creating value for the customer, the role of social media as a tool of direct communication with customers should be particularly stressed. This communication allows companies not only to promote themselves and build their position in the market, but is also an invaluable source of information on the changes which they should implement in order to meet the preferences of consumers.

On the basis of the author's research and statistical analyses, it was discovered that some elements of social media relating to e-shops; namely an e-shop's presence within different social networks, the presence of an e-shop forum, and the possibility of co-creating content within a shop's website; were usually rated higher by younger people as well as women. Although the overall assessment of the use of social media by online shops as a tool for creating value for customers was not very high, it seems reasonable, especially due to the nature of this research, to conduct further in-depth studies in this area.

Finally, taking into consideration the predicted trends in social media (DeMers, 2015), particularly the progressive integration of additional functionality within social networking sites (such as the ability to make purchases directly from a given site), one can expect a continuing increase in the time that Internet users spend on social media. Therefore, by analogy, one can expect a similar increase in their importance in the context of e-commerce, where the current activities of individual companies clearly show that there is a sustained interest in social media.

## References

1. Anderson J.C., Narus J.A. (1998), *Business Marketing: Understand What Customers Value* (<https://hbr.org/1998/11/business-marketing-understand-what-customers-value>; accessed: 18.04.2016).
2. *Barometr e-commerce* (2016) (<http://inwestycje.pl/ecommerce/Barometr-e-commerce-2016;275145;0.html>; accessed: 24.04.2016).
3. Chaffey D. (2016), *Digital Business i E-Commerce Management*, Wydawnictwo Naukowe PWN, Warszawa.
4. Daisyme P. (2016), *Top 20 Social-Media Tools to Add to Your Arsenal in 2016* (<https://www.entrepreneur.com/article/254712>; accessed: 25.04.2016).
5. DeMers J. (2015), *The Top 7 Social Media Marketing Trends That Will Dominate 2016* (<http://www.forbes.com/sites/jaysondemers/2015/09/28/the-top-7-social-media-marketing-trends-that-will-dominate-2016>; accessed: 25.04.2016).
6. Drucker P. (2005), *Praktyka zarządzania*, Wydawnictwo MT Biznes, Warszawa.

7. Doligalski T. (2013), *Internet w zarządzaniu wartością klienta*, Oficyna Wydawnicza SGH, Warszawa.
8. Doligalski T. (2014), *Modele biznesu w Internecie*, Wydawnictwo Naukowe PWN, Warszawa.
9. Hipsz T. (2012), *Firma w Internecie. Poradnik subiektywny*, Wydawnictwo Helion, Gliwice.
10. Johnson W.C., Weinstein A. (2005), *Superior Customer Value in the New Economy: Concepts and Cases*, Second Ed., CRC Press, Boca Raton.
11. Kaczmarczyk S. (2011), *Badania marketingowe. Podstawy metodyczne*, Polskie Wydawnictwo Ekonomiczne, Warszawa, Chapters 6–10.
12. Kaplan A.M., Haenlein M. (2010), Users of the world, unite! The challenges and opportunities of Social Media, *Business Horizons*, 53(1).
13. Kemp S. (2016), *Digital in 2016* (<http://wearesocial.com/uk/special-reports/digital-in-2016>; accessed: 10.04.2016).
14. Królewski J., Sala P. (eds) (2014), *E-marketing*, Wydawnictwo Naukowe PWN, Warszawa.
15. Merriam Webster Dictionary (<http://www.merriam-webster.com/dictionary/social%20media>; accessed: 10.04.2016).
16. Mruk H., Stępień B. (2013), *Tworzenie wartości dla klienta z perspektywy konsumentów i przedsiębiorstw*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
17. Patel S. (2016), *Social-Media Marketing Is Not Dead: 10 Companies That Are Still Rocking It* (<https://www.entrepreneur.com/article/254644>; accessed: 10.04.2016).
18. Seybold P., Marshak R. (1998), *Customers.com: How to Create a Profitable Business Strategy for the Internet and Beyond*, ([https://www.customers.com/media/uploads/pdfs/customers.com\\_classic.pdf](https://www.customers.com/media/uploads/pdfs/customers.com_classic.pdf)).
19. Smaga M., Bonek T. (2015), *Jak zarabiać w internecie*, Oficyna a Wolters Kluwer business, Warszawa.
20. Szpringer W. (2012), *Innowacyjne modele e-biznesu*, Wydawnictwo Difin, Warszawa.
21. Tapscott D. (2010), *Cyfrowa dorosłość*, Wydawnictwa Akademickie i Profesjonalne, Warszawa.
22. Woodruff R.B. (1997), Customer Value: The next source for competitive advantage, *Journal of the Academy of Marketing Science*, 25, 2, Academy of Marketing Science.
23. Ziemba E., Olszak C.M. (2007), *Strategie i modele gospodarki elektronicznej*, Wydawnictwo Naukowe PWN, Warszawa.

# Chapter 8

## Monitoring of Web Content as a SaaS Service that Effectively Corresponds to the Current Needs of the Market

Anna Roth

**Anna Roth:** PhD student in the Department of Commerce and Marketing, Poznań University of Economics and Business

**Abstract:** This article is devoted to an Internet content monitoring service, which belongs to solutions called Software as a Service. The big data created via social media are constantly being monitored and analysed. The aim is to provide businesses with selected information on ongoing discussions concerning product and company topics. Moreover, the analysis includes the effectiveness of marketing activities, which translates into measurable results for companies. Based on a review of the literature, the legitimacy and benefits for the use of online content monitoring have been presented.

**Keywords:** monitoring online content, saas, social media monitoring, software as a service

**JEL classification:** M31

### Introduction

The aim of this article is to demonstrate the legitimacy and benefits for the use of online content monitoring. Discussing the specifics of the solution should start with a method of providing a service which has a significant impact for the recipients. In the case of monitoring online content, the software offered is provided on the basis of Software as a Service. This results in a number of benefits for the solution provider as well as the recipient of the software.

A current subject of research and analysis is the issue of monitoring Internet content as a response to the growing demand from enterprises for content analysis. The discussion follows an analysis of domestic and foreign literature, which highlights the opportunities and risks resulting from rapid technological progress. Generating a large amount of Internet content creates an environment suitable for the further development of online content monitoring services. The paper also presents examples of the use of the service in question and the prospects for its future development.

## 8.1. The specificity of SaaS services

The growing importance of technology and universal access to the Internet means that today more and more technology solutions are provided based on the principle of Software as a Service (SaaS). Users do not make the purchase and installation of a given tool. A sufficient activity to use the service is a subscription and having an Internet connection to run the software in a web browser (Strativa, 2013). A detailed list of characteristics of this solution is presented in Table 1. The SaaS service, also known under the term “software on demand” is an application held, delivered and managed remotely by one or several providers. The service provider delivers an application based on the source code, which can be used in the one-to-many model (Santy and Sikkel, 2014). All customers who have purchased access to the software may use it at any time on a subscription or fee for single use.

The decision to start using SaaS is determined by many factors. As part of the life cycle of software acquired on the principle of outsourcing, authors usually mention from 4 to 7 for the phases which a SaaS service goes through. Santy determined that all the necessary elements could be included in 5 phases: business strategy, provider selection, transformation, relationship management and evaluation, renewal or termination. From the point of view of the provider, the key points of contact include the choice of provider and ensuring long-term relationships. An appropriate positioning of the service, an experienced sales team and the recognisability of the software has an impact on becoming a potential provider. Increasingly, in addition to the standard inquiries from customers, the owners of the software must independently solicit new subscribers. Lead and sales funnel management impact sales effectiveness. Constant contact, professional customer service and assistance in understanding the software’s capabilities translate into building relationships and taking care of them in the long term. In addition, the positive effects achieved thanks to an SaaS service and the high values of marketing activity indicators affect the decision to extend the subscriber contract (Santy and Sikkel, 2014).

An important aspect of SaaS services is enabling access to software only through an Internet connection and, to a large extent, transferring to the online channel the processes of sales and after-sales services. Software providers try

Table 1. Characteristics of Software as a Service.

Item	SaaS
Environment	Internet
IT support	Included as part of the service
Scalability for multiple recipients	Common (one-to-many model)
Ownership of applications	Provider
Ownership of infrastructure	Provider
Management location	Outside
Payment type	Subscription based on use
Operating cost	Low
Degree of customization	Low

Source: Santy and Sikkel (2014).

to offer their services via the Internet. In this way they establish contact with the target group and provide information about the product, often allowing access to test versions that finalize transactions. At the time of the transformation of a potential consumer into a real one, the purely transactional contact turns into a long-term relationship. Many suppliers provide special teams responsible for taking care of customer satisfaction (Strativa, 2013). SaaS services usually rely on one-month subscriptions, so the software user may resign from the continuation of cooperation at any time. The task of the company is to properly train a client in software functionality, to facilitate current use, to solve issues and adapt services to the changing market.

Transfer of the sales process from traditional channels to the Internet entails a reduction in costs. In addition, it permits offering services to a much wider market than just the one closest geographically. In turn, the consumer receives a number of benefits when deciding to purchase the software in the form of SaaS. In this case, unlike the traditional sales model there is no initial cost of purchase for the entire software, the amount of which is often a big barrier to more advanced solutions (Ontrak Software, 2013). During use, an additional advantage is the free of charge and automated updating and implementation of new software versions, as well as its operation, maintenance and upkeep. Other advantages in favour of SaaS services include very high availability, access via the Internet and payment by use (Santy and Sikkel, 2014).

## 8.2. The essence and scope of monitoring online content

Access to the Internet has resulted in the emergence of large amounts of data. So much content is created that it is difficult to process all the information. Their effective use requires detailed analysis, singling out the set of interesting data and their interpretation. For companies operating in the B2C market, the point of content analysis concerns the rapid and valuable identification of a target

group. Internet content allows for getting to know customers in a previously impossible way. Moreover, companies can participate in the creation of content by means of two-way communication (brand-consumer dialogue). The next step is to use the data acquired in the framework of the marketing strategy of a company. To achieve measurable benefits, information should be capitalized on through optimal business goals (Alberghini et al., 2014).

A significant part of the content is generated through social media. Internet users interact with each other, create content and share it. Communication takes place not just among friends, but it goes beyond the private zone. Internet users are willing to share their insights with strangers, businesses and organizations. The concept of social media covers a wide range of communication channels, including forums, blogs, social networking sites (Facebook, Twitter, etc.), photo sharing sites (Pinterest, Instagram etc.), video sharing sites (YouTube etc.), and music sharing sites (SoundCloud etc.). Advanced interactions develop, implying an increasingly deep involvement of the participants. This creates new forms of collaboration, such as crowdsourcing and crowdfunding. As a result of the increased generation of content, not only thoughts and opinions are exchanged; it is also an innovative way for the liberation of creativity, innovation and the development of new products by consumers. Social media have also become a channel of communication with the external environment of the company. Through them, the creation of brand awareness occurs, along with the increasing satisfaction and loyalty of consumers and suppliers. Most selected effectiveness indicators show that social media are supposed to ultimately lead to an increase in sales (Alberghini et al., 2014).

A significant proportion of online content comes from social media. More and more new channels of communication are emerging, and in the prevailing information noise it is increasing difficult for businesses to single out important messages, in response to which a brand should engage in dialogue with the community. These have transformed into a solid, cheap and unstructured data collection method on a large scale. The growing demand for this type of content analysis gave rise to many tools for web content monitoring (Schoen et al., 2013). These are technological solutions in the form of SaaS services, with the price depending on the level of advancement of a package in terms of functionality and paid in subscription form. They are particularly important in the face of potential threats to brand reputation. Enterprises need tools to help them quickly identify content, monitor it on an ongoing basis, and depending on its development

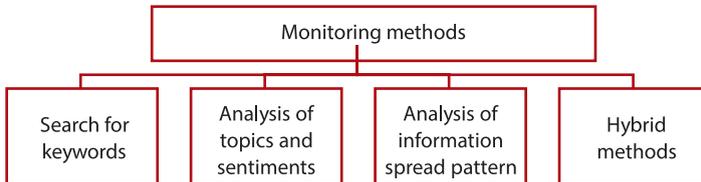


Figure 1. Methods for monitoring Internet content.

Source: Zhang and Vos (2014).

provide an appropriate response. The answer to the growing need to measure the activity of Internet users and track emerging content are tools for monitoring web content. The main functionalities they offer include listening to and interpreting online discussions based on a keyword, product or brand in real time, and the ability to start a dialogue adapted to the situation. The main methods of monitoring are presented in Figure 1 (Zhang and Vos, 2014).

Web content monitoring services are based on collecting, processing and analysing discussions, posts and other content on the web. The solution is customized for each recipient. The company or person alone decide what type of content they want to monitor. There are two main areas of customization: the choice of communication channels analysed (e.g. Facebook, Twitter); and determining the expressions to be analysed. These include, for example:

- names of products, product categories, brands or companies,
- names (e.g. well-known people),
- ad titles and their descriptions,
- characteristic strings of characters allowing the identification of content; among others, sentences, fragments of code (Roszkowski, 2013).

Content monitoring also allows for observing the range obtained by a given message. The 1–9–90 Nielsen’s principle describes this dependency by assuming that a very active Internet user relates to 9 only occasionally active people and 90 inactive people. This shows the size of the audience, information which can be crucial for a company and helpful when predicting the potential spread of content (Rostek, 2012).

### 8.3. The use of monitoring

Depending on the specifics of the industry and the enterprise, web content monitoring tools can be used in different ways. Furthermore, the individual software available on the market differs in scope and data collection methodology. The primary purpose of the activity in social media and content monitoring is the creation of a positive image for the brand and its protection (Zhang and Vos, 2014). However, we can distinguish several major functions that are most often used. According to Figure 2, the first one is observation. By monitoring social media, companies obtain a selected set of information. Employees managing the tool can freely adjust the range of observation to their needs. This is usually a series of keywords associated with the brand, products and services, as well as with competing companies for constant monitoring of the situation in the industry. The information collected comes directly from consumers, therefore at the analysis stage it is very valuable, and communicates to the company an idea of the target group about the offer and brand. On the other hand, in order to use the data to take concrete action, companies interact with customers, influence and draw conclusions from measuring their involvement.



Figure 2. Features of online content monitoring service.  
Source: Own study.

Users post a lot of information regarding both their private life and their opinions or views. From a business perspective, these may be descriptions of their experience with the product or with a service, as well as problems, complaints or statements which put the brand in a negative light. The tasks of web content monitoring services include analysis. Through algorithms developed by the creators of the software, content appearing on the Internet is filtered and information relevant to the query (keywords) are presented in the tool as a result of observation after undergoing analysis. Depending on the technological advancement of the software, analysis can take place on many levels.

One of the key functionalities of Internet content monitoring services is to analyse the sentiment of an expression. This involves the processing of text data, mostly from social media in order to determine the nature of a given post and to designate a user’s opinion as positive, neutral or negative. Carrying out this type of analysis in real time allows specifying important discussions and contributes to a rapid response from the brand. In the long-term, the collected data translate into a prognosis of relationships or trends. The process of assigning sentiment consists of statistical and linguistic analysis. Social media generate a large amount of content, which results in difficulties in obtaining a clear and unambiguous answer as to the sentiment of a given utterance. There are also other factors that disturb the effectiveness of the analysis; including abbreviations, slang, jokes and sarcasm appearing in the statements. It is very difficult to subject this type of content to a process of automatic analysis of sentiment. In response, Internet monitoring tools not only use an analysis of individual words, but also of phrases, emoticons or dictionaries specific to social networking sites (Lamont, 2013).

A key element of content analysis is also to forecast the spread of a given discussion and the possibility of its future development. Enterprises analyse involvement because of the need to measure the effectiveness of online marketing strategies (Figure 3). Brand presence in social media can be analysed in three

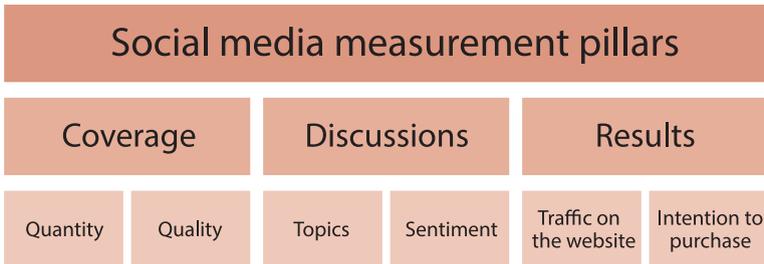


Figure 3. Analysis of social media.  
Source: Murdough (2009).

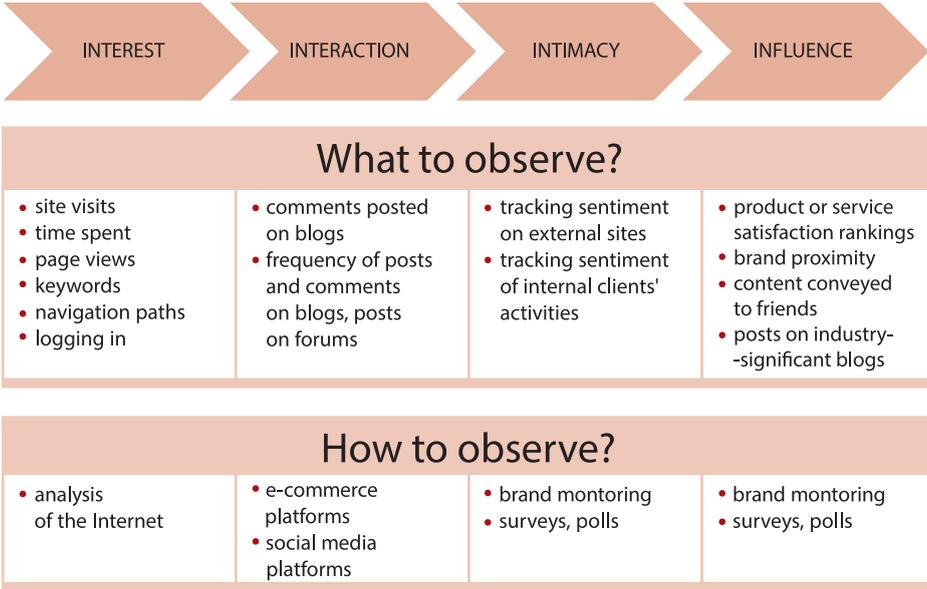


Figure 4. Four-I model and brand monitoring. Source: Haven (2007).

areas: coverage, discussion and results. On this basis the number of references, the authors and the quality of the content are monitored. The monitoring also takes into account the sentiment of expression and the ultimate effects of involvement in communication channels (Murdough, 2009).

Through observation and analysis of data, enterprises identify the most sensitive topics that appear on the Internet. This gives them a set of discussions in which the brand should participate. In their analyses, enterprises take into account both quantitative and qualitative indicators. The large amount of data available online implies the need to monitor content by filtering only that associated with the brand. Efficiency of actions can be measured also by the Four-I model shown in Figure 4: interest, interaction, intimacy and influence. Aggregated factors measure the effectiveness of actions taken. Web content monitoring services integrate data from different sources that allows for the most optimal and efficient measurement for the involvement of Internet users. The higher the level of involvement, the more useful the technological solutions to facilitate the process of data collection become (Haven, 2007).

### 8.4. Prospects for the development of web content monitoring service

The methods described for the use of web content monitoring reveal a number of advantages for this type of software. However, due to the booming market

in social media, there are emerging challenges that face software vendors and companies that use their services. The biggest challenge is the need for continuous improvement in the algorithms to measure the expression of sentiment. In connection with internationalization, companies are increasingly becoming global. This implies a requirement to analyse even greater amounts of data with a high diversity. The algorithms must be adapted into many language versions. Moreover, languages consist more and more of borrowings from foreign languages, mainly English. To effectively analyse sentiment, the software must not only properly understand the added content, but also to recognize its character. There is still a problem with playful or sarcastic statements, which need to be further analysed by human operatives to determine the correctness or incorrectness of a particular sentiment.

High cost is an obstacle to the spread of Internet monitoring services. Advanced technological solutions are associated with high prices. In particular, smaller companies do not budget for high spending on activities whose outcome is not directly linked to sales results and where a return on investment is difficult to determine. However, the topics are touched upon with increasing frequency in the trade press and are promoted by more and more suppliers as delivering results. The main objective is to raise awareness among small and medium-sized enterprises that this type of service can bring real gains at little cost. The use of SaaS solutions confers additional benefits in the form of a lack of high initial investment costs. Enterprises can purchase a monthly subscription, while receiving the full support of the team of advisors from the service provider, and decide later on any continuation or discontinuation in the use of the service. An incentive to start monitoring content is that there are also trial versions offered by most vendors. It should be noted that many start-ups are involved in the Internet content monitoring industry. This results in greater competition in the market, new technological solutions, and often lowers prices compared to the big players who have operated in this market for many years.

## Conclusions

In this scientific article, the author raises the issue of web content monitoring services belonging to the Software as a Service type of solutions. The article presents the current causes of the high demand for content monitoring and analysis. Internet users create large amounts of data, which companies wishing to actively respond to market needs should continually analyse. As a result, they acquire a competitive advantage in the industry, create an offer corresponding to the requirements of consumers, and increase their satisfaction with the service. Web content monitoring services automate the processing of information and offer the possibility of a rapid response to emerging events.

Summing up the discussion, it should be emphasized that the content monitoring services offering by the SaaS formula also provides access to technology

for smaller companies. This provides an opportunity to initiate effective competition with larger companies on social media. This gives significant support to marketing activities, the effectiveness of which can be measured faster than with standard solutions. Marketing strategies also increasingly take into account content monitoring as well as dialogue with the consumer as a fundamental pillar for building a community around a brand. This translates into the greater use of web content monitoring services. The trend is so strong that its further development in the future can be safely assumed.

## References

1. Alberghini E., Cricelli L., Grimaldi M. (2014), *A methodology to manage and monitor social media inside a company: a case study*, Journal of Knowledge Management, 18, 2, Bingley.
2. Haven B. (2007), *Marketing's New Key Metric: Engagement*, Forrester Research, Forrester Research, Cambridge  
([https://www.adobe.com/enterprise/pdfs/marketing\\_new\\_key\\_metric\\_engagement.pdf](https://www.adobe.com/enterprise/pdfs/marketing_new_key_metric_engagement.pdf); accessed: 5.03.2016).
3. Lamont J. (2013), *Customer sentiment analysis: A shift to customer service*, KM World, 22, 2, Camden.
4. Murdough Ch. (2009), *Social Media Measurement: it's not impossible*, Journal of Interactive Advertising, 10, 1, Abingdon.
5. Ontrak Software (2013), *SaaS: The Utility Approach to Enterprise Software*, Metal Center News, Supplement IT Solutions, 8.
6. Rostek R. (2012), *Przegadana reputacja firmy*, Marketing w Praktyce, 10, Warsaw.
7. Roszkowski J. (2013), *Monitoring mediów społecznościowych*, [in:] J. Królewski, P. Sala (eds), *E-marketing. Współczesne trendy. Pakiet startowy*, Wydawnictwo Naukowe PWN, Warsaw.
8. Santy S., Sikkell K. (2014), *Sourcing Lifecycle for Software as a Service (SAAS)*, EPJ Web of Conferences, 68, Les Ulis Cedex.
9. Schoen H., Gayo-Avello D., Panagiotis M., Eni M., Strohmaier M., Gloor P. (2013), *The power of prediction with social media*, Internet Research, 23, 5, Bingley.
10. Strativa (2013), *With SaaS, Software Not Only Service Needed*, Computer Economics Report, 35, 10, Irvine.
11. Zhang B., Vos M. (2014), *Social media monitoring: aims, methods, and challenges for international companies*, Corporate Communications: An International Journal, 19, 4, Bingley.



# Chapter 9

## Socio-Economic Determinants of Online Consumer Spending

Małgorzata Grzywińska-Rąpca, Mariola Grzybowska-Brzezińska

**Małgorzata Grzywińska-Rąpca:** Assistant Professor on the Faculty of Economics, University of Warmia and Mazury in Olsztyn

**Mariola Grzybowska-Brzezińska:** Associate Professor on the Faculty of Economics, University of Warmia and Mazury in Olsztyn

**Abstract:** Over the last two decades the worldwide web has become an integral part of everyday life. Being a new technology in the modern world, it is regarded by many people as its symbol. It is a source of education, work and entertainment, as well as being one of the fastest means of communication and the basis for the functioning of each element in the economy. Nowadays, almost everyone has access to the Internet. Initially, the Internet was used only by the academic community. However, owing to industrial and economic development, as well as technical and technological advancement, the Internet has become widespread on a global scale. Today, online shopping is an inseparable element in the lives of young people in the population. New developments are changing this area of the economy at a rapid pace, thus it is worth exploring the socio-economic determinants as to the level of young consumers' online spending. The aim of this study was to ascertain whether demographic and economic factors have an impact on the level of online consumer spending. An analysis of data by means of statistical tools made it possible to identify the most important factors affecting the level of online shopping among young consumers.

**Keywords:** e-consumer, Internet, online shopping

**JEL classification:** C12, C13, D12, E20

## Introduction

Along with the development of various commercial applications on the Internet, a range of tools and services which support conducting business activities online have also been developed (Gregor, Stawiszyński, 2002 p. 112). Consumers are increasingly aware of the benefits of electronic commerce as well as the security concerns associated with it. Today, purchasing goods and services online is an increasingly common phenomenon. With the advent of the Internet and the possibility of making online transactions, many people have begun to do shopping this way. The buying decisions of Internet shoppers, just like those of shoppers in the real world, are influenced by specific psychological factors and individual characteristics (Mazurek-Łopacińska, 2003, p.39). Consumers can be guided by a range of different motives when making their purchasing decisions, as on the one hand they are autonomous individuals, and on the other, they are members of a social and territorial community (Grzywińska-Rapca, Grzybowska-Brzezińska, 2015, p 353). Online advertising, the layout of websites, as well as all other activities related to the promotion of e-businesses should be designed with potential customers in mind. Consumers attach great importance to the first impression created by a company which they are interested in and its products. They also tend to perceive various things the way they would like to see them. The process of perceptual defence makes it possible to separate content that is useful from that which is useless. On the Internet, there is an enormous amount of different types of content as well as intense competition between companies. This gives Internet users a certain sense of security and allows them to separate and eliminate what they consider unnecessary. On the basis of certain beliefs, therefore, consumers choose those companies which they associate with the greatest professionalism, and reject those that do not fully appeal to them, for example because the website is unclear.

### 9.1. Methodical assumptions

The patterns of spending, including online spending, and their diversification is one of the basic categories examined by economics. Through spending, consumers obtain goods and services that meet their needs (Bywalec, 2010, p. 11). Analyses of spending patterns help to identify regularities occurring in the process of consumption in relation to both whole societies and individual e-consumers (Dąbrowska, Janoś-Kresło, 2009, p. 143). The final decisions of consumers with regard to spending on online purchases depend on a number of factors.

The aim of this article is to assess and analyse consumer behaviour on the Internet. To this end, on the basis of research, the authors identify a set of determinants of consumer behaviour which may be an important source of information for companies striving to adapt their activities to the needs of prospective customers.

To achieve this aim, the article presents the results of a questionnaire survey designed to show the behaviour of e-consumers. The survey was conducted by the authors in March 2016 on a group of young consumers<sup>17</sup>. Out of a total of 196 returned forms, 172 correctly completed ones were used for analysis.

## 9.2. Factors determining the behaviour of the respondents

The survey was carried out among internet users who were registered on Internet forums and social networks. The respondents participating in the survey were aged between 19 and 32 years. The majority of the respondents were women (73.8%), with men accounting for only 26.2% (Table 1).

As regards the level of education the highest proportion of respondents were people with higher education (90.1%), followed by those with secondary education who accounted for 7.6% of the survey participants.

The main place where respondents did shopping were online stores (65.1%) (Table 2).

Table 1. Respondents who have ordered or bought goods for their private use online in the last three months.

	Number	Percentage
Gender		
Female	127	73.8
Male	45	26.2
Total	172	100.0
Education		
Primary	2	1.2
Secondary	13	7.6
Tertiary	155	90.1
Vocational	2	1.2
Total	172	100.0

Source: Own compilation based on survey results.

Table 2. Types of Internet sites used for shopping.

		Number	Percentage of valid responses	Cumulative percentage
Valid	Auction sites	60	34.9	34.9
	Online stores	112	65.1	100.0
Total		172	100.0	

Source: Own compilation based on survey results.

<sup>17</sup> The questionnaire was created using Google Forms.

Auction sites proved less popular among the respondents. This may be due to the fact that the users of such sites have to register, which for online stores is often optional.

The most important argument for purchases was an attractive price, which is usually lower than in traditional bricks-and-mortar stores. This was indicated by 75% of all the survey participants. Another important reason was the availability of goods. The Internet gives wider possibilities and does not limit e-consumers in any way as regards choosing an online store, so it is much easier to find merchandise that is often not available in the nearby area. This aspect was indicated by 72.1% of the respondents. Another factor, equally important as the availability of goods, was a much larger range of products than in traditional stores. The least important in the opinion of respondents was the possibility of having the goods delivered to their homes: 58% of respondents indicated this as an important factor when shopping at online stores.

The vast majority of respondents bought products and services via the Internet at least several times a year. Only two of the respondents declared that they did not use modern technologies for the purpose of acquiring goods and services (Table 3).

When analysing the frequency of online purchases, it can be observed that the largest number of respondents shopped on the Internet several times a year (38.4%). A frequency of several times a month was indicated by just under 20% of the people surveyed.

Factors which play an important role as regards opting for online shopping are the opinions of friends or the opinions of Internet users about the site from which a customer intends to purchase goods, as well as lower prices compared to those offered by traditional stores: 58.7% of respondents took those factors into account (Figure 1).

In the case of online shopping, recommendations are important because the better the opinions about a site, the more willing the consumer will be to use it and the more confident they will feel. Other elements such as warranties, payment methods, fast delivery of goods and detailed descriptions of products were relevant to between 36% and 42% of respondents. It is worth noting that buying decisions are undoubtedly influenced by the place where purchases are

Table 3. Frequency of shopping on the Internet.

	Number	Percentage	Percentage of valid responses	Cumulative percentage
At every opportunity	27	15.7	15.7	16.3
Several times a month	34	19.8	19.8	36.0
Several times a year	66	38.4	38.4	74.4
I do not shop on the Internet	2	1.2	1.2	75.6
Only when I have a special need	42	24.4	24.4	100.0
Total	172	100.0	100.0	

Source: Own compilation based on survey results.

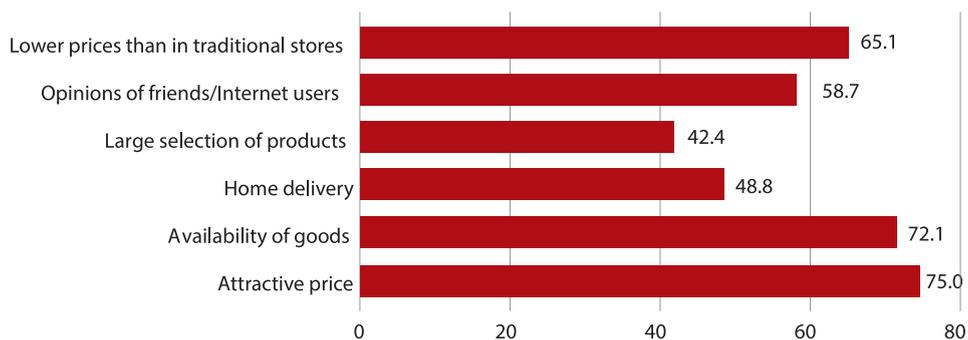


Figure 1. Factors which influence choosing the Internet for shopping.  
Source: Own compilation based on survey results.

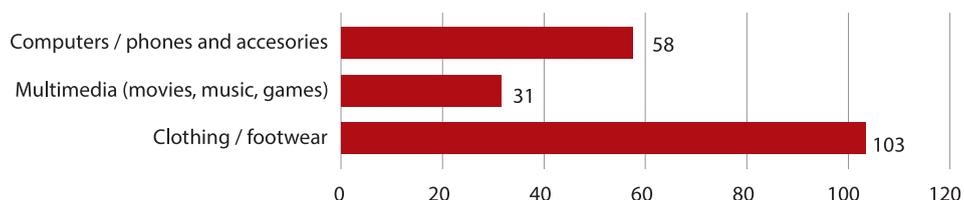


Figure 2. The most popular groups of products bought online.  
Source: Own compilation based on survey results.

made because every online store offers different and specific opportunities and facilities for its customers.

In order to analyse the frequency the respondents' purchases with regard to specific product groups, three groups of products were defined: clothing and footwear, multimedia, and computer equipment (Figure 2).

By far the most frequently purchased products were clothing and footwear – almost 60% of respondents indicated this group. The other product groups were indicated by 33.7% (computers/phones and accessories) and 18% (multimedia) of respondents.

The cost of the respondents' last online purchase in the majority of cases did not exceed 1,000 zlotys (Figure 3).

Expenditure of up to 250 zlotys was indicated by 88.4% of the survey participants. On the other hand, only 0.6% of respondents declared that the value of their last purchase exceeded 1,000 zlotys.

With regard to the frequency of online shopping, the highest spending was recorded in the case of those respondents who declared that they shopped online several times a month. The average amount spent on online purchases in this group was 389.50 zlotys (Figure 4).

The smallest amount which the respondents spent on shopping via the Internet was 249.48 zlotys. This is understandable because this level of online spending was declared by those e-customers who chose this form only in the case of special needs.

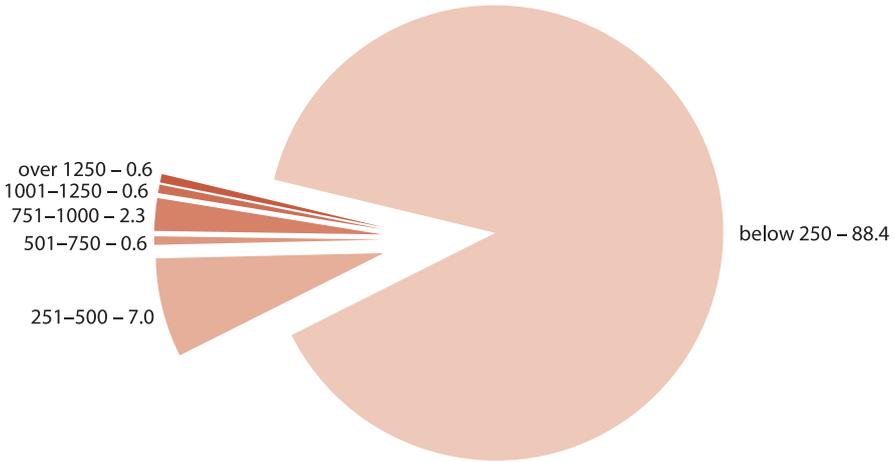


Figure 3. The cost of single online purchases.  
Source: Own compilation based on survey results.

The results of the survey were further analysed with a view to finding out whether the gender, education and household income of the respondents had an impact on the frequency of purchasing goods and services on the Internet. The values of the calculated chi-square and Cramer’s V statistics are shown in Table 4.

The analysis confirmed the existence of significant correlations between the studied variables (the theoretical values turned out to be smaller than

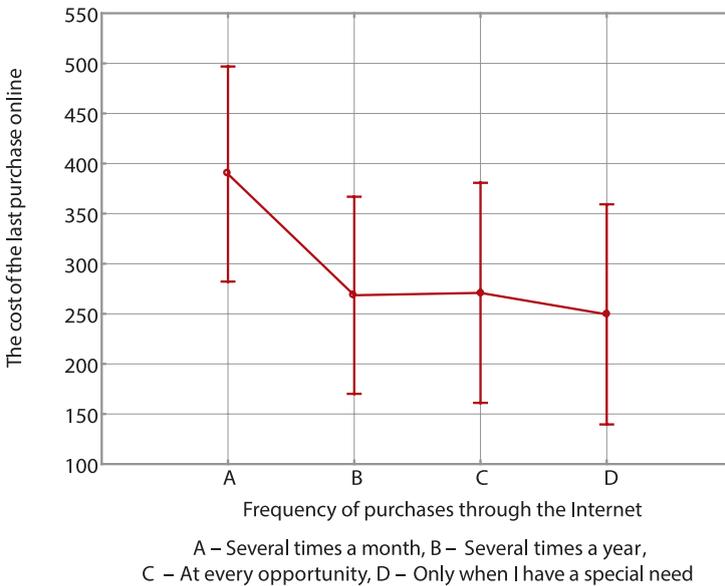


Figure 4. Average spending of the respondents in relation to the frequency of online shopping.  
Source: Own compilation based on survey results.

Table 4. Values of chi-square and Cramer’s V statistics.

Variables	Statistics	
	Chi-square	Cramer’s V
Education	193.56	0.514
Gender	182.84	0.748
Income	241.71	0.530

Source: Own compilation based on research.

Table 5. Values of chi-square and Cramer’s V statistics.

Variables	Statistics	
	Chi-square	Cramer’s V
Education	267.9	0.721
Gender	63.12	0.606

Source: Own compilation based on research.

the calculated values). In order to determine the strength of the correlations, Cramer’s V coefficient was used. The values of this coefficient indicate that the most statistically significant relationship exists between the gender and the frequency of online purchases made by the respondents (0.748). The remaining values (0.514 and 0.530) indicate the existence of moderate correlations between the analysed variables.

The analysis also included the impact of socio-demographic characteristics on the level of the respondents’ spending. In order to ascertain whether two independent variables, gender and education, have an impact on the level of online spending a hypothesis was formulated that education and gender do not affect the level of spending. The calculated statistics are presented in Table 5.

The chi-square statistics shown in the table refute the formulated hypothesis and are a basis for adopting an alternative hypothesis which assumes the existence of a correlation between the analysed variables. The values of Cramer’s V indicate a stronger impact of education (0.721) than gender (0.606) on the level of the respondents’ spending on goods and services.

## Conclusions

The Internet and the growing availability of modern information technology is changing consumer behaviour in many areas, which also include shopping. This is reflected in consumers’ attitudes but also in the level of spending on purchases via the Internet. Virtual buyers are actively involved in two main forms of e-commerce: Internet auctions and online stores. Online customers differ significantly from traditional customers in that the customers of online stores are primarily young people.

The surveyed e-consumers are aware of both the advantages and drawbacks of online shopping. They perceive this form of shopping as more beneficial compared to traditional forms because of the lower prices in online shops, better product availability, as well as the possibility of comparing products from different manufacturers. Important criteria for the selection of products in Internet shops are attractive prices and the opinions of friends and other Internet users. The average level of spending of online consumers, depending on the frequency of purchases, ranged between 249.48 and 389.50 zlotys. The conducted analyses confirmed the existence of significant correlations between the gender and education of online shoppers as well as the frequency and the level of spending on online purchases.

## References

1. Bywalec C. (2010), *Konsumpcja a rozwój gospodarczy i społeczny*, Wydawnictwo C.H. Beck, Warszawa.
2. Dąbrowska A., Janoś-Kresło M., Wódkowski A. (2009), *E-usługi a społeczeństwo informacyjne*, Wydawnictwo Difin, Warszawa.
3. Gregor B., Stawiszyński M. (2002), *E-commerce*, Branta, Bydgoszcz.
4. Grzywińska-Rąpca M., Grzybowska-Brzezińska M. (2015), *Preferencje zakupowe studentów wykorzystujących nowoczesne technologie informacyjno-telekomunikacyjne*, *Roczniki Kolegium Analiz Ekonomicznych SGHW*, 36: 451–460.
5. Mazurek-Łopacińska K. (2003), *Zachowania nabywców i ich konsekwencje marketingowe*, Polskie Wydawnictwo Ekonomiczne, Warszawa, p. 280.

# Chapter 10

## Prosumption as an Impetus for Changing Consumer Behaviour

Wiesław Ciechomski

**Wiesław Ciechomski:** Associate Professor in the Department of Commerce and Marketing, Poznań University of Economics and Business

**Abstract:** This article is devoted to prosumption, which in recent years has become an increasingly important trend in the behaviour of consumers. The purpose of this article is to show the importance of pro-consumption attitudes in the market activities of companies. A new dimension of consumption in the twenty-first century is presented, in which customers create their own vision of a product and in a more or less conscious way participate in the process of its manufacture. The article attempts to characterise a new trend in the behaviour of consumers as well as discussing examples of prosumer behaviour. It should be stressed that modern-day companies are increasingly incorporating into their business models the growing interest of consumers in personalization as well as the involvement of the end users in the process of designing and manufacturing products. The article is based on a review of the literature and Internet sources.

**Keywords:** prosumption, mass customization

**JEL classification:** M31

### Introduction

Prosumption is a very interesting and topical research subject. Despite the fact that more than four decades have passed since Alvin Toffler first described the upcoming processes of prosumption, this concept has only relatively recently become the focus of economists' and sociologists' discussions (Toffler, 2001, p. 12 onwards). According to Toffler, the socio-economic evolution of the hu-

man race can be divided into three distinctive stages, which the author refers to as successive “technological waves” in the progress of civilization. The first wave, the agrarian, ended with the advent of the industrial revolution. The second wave, the industrial, associated with inventions such as the printing press, the steam engine and electricity, led to the standardization and homogenization of societies. Finally, the third wave, the information wave, is directly connected with the emergence of new technologies permitting unlimited communication between individuals through the development of services and a departure from mass production. One of its effects is the individualization of consumption and the emergence of presumptive attitudes among consumers.

Prosumption consists in personalizing a company’s offer on a large scale, which is possible owing to the dynamic development of production technology and a comprehensive knowledge of the needs and preferences of consumers. Its aim is to optimally satisfy customers’ needs by including them in the design of goods. Individualization of offers is particularly applicable in the clothing, footwear, jewellery and automotive sectors. The factor which to the greatest extent determines presumptive behaviour is the individualized lifestyle of today’s consumers of goods and services. This will be discussed in more detail later in the article.

## 10.1. Individualization as a lifestyle

Each consumer can create their own image through acquiring and consuming various products and brands. For this reason, companies ought to regard personalization as a significant trend which determines the lifestyles of contemporary consumers. There are three driving forces for individualization that influence consumers’ lifestyles.

A significant proportion of consumers want to imitate the patterns of behaviour by reference groups while remaining individual and unique. This uniqueness can be provided by product brands through conveying the uniqueness of the product and the individuality of the target consumer. This fact was already observed in the marketing literature of the 1990s (Hulten et al., 2011, p. 43). As a result of digital technology and the development of new media, some brands are also becoming strong in the global market. This makes it possible to expand the brand family (umbrella brands), which means diversifying the offering and introducing new products, provided that the marketing strategies are sufficiently innovative and creative. A manufacturer or seller who implements this strategy is likely to be successful if the consumers’ associations and experiences connected with the products offered so far are strong and distinctive enough that they create an individual and specific image among consumers.

The process of building an image involves such elements as culture, language, aesthetics and symbols, as well as everyday events and experiences (Kozłowska, 2005, p. 6). These elements should make producers aware of the importance

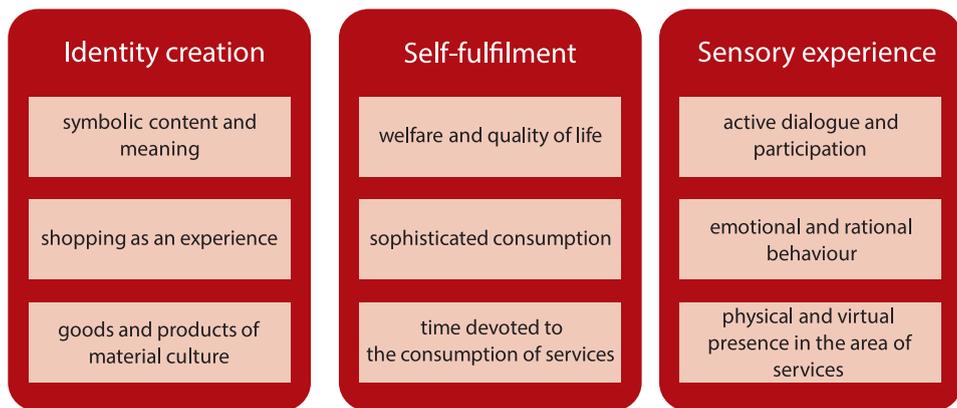


Figure 1. Individualization as a lifestyle.

Source: Own compilation based on (Hulten., Broweus, van Dijk, 2011, p. 37).

of emotions and senses in making buying decisions. Also, the amount of time that consumers devote to the purchase and consumption of goods and services is changing. In recent years this amount of time has decidedly increased. The growing wealth of societies in highly developed countries means that more and more people devote a considerable part of their days, especially at weekends, to shopping, recreation and leisure. This shows that the pursuit of self-fulfilment is a very important element of the lifestyle of educated and affluent consumers nowadays.

In societies consisting of individualists one can observe the growing autonomy of consumers, who are active, creative and involved in the search for products and services which correspond to their growing needs and aspirations. Faced with such attitudes of consumers, companies should strive to stand out from their competitors through using new communication channels as well as incorporating emotional, sensory and aesthetic stimuli in their promotional activities. Awareness of the determinants of consumers' behaviour on the market is essential for formulating a strategy for the company's communication with buyers (Rudnicki, 2012, p. 177). The effectiveness of such communication largely depends on the media used and the characteristics of the customers to whom this communication is addressed. In the latter case, it is possible to identify three groups of consumers, known as generations X, Y, and Z.

Generation X consists of people born in the years 1965–1980, who are generally thought to be self-confident and independent. They appreciate a balance between work and private life, and often either have their own businesses or aspire to run their own company. They communicate by e-mails and mobile phones. An interesting characterization of this segment and an attempt at identifying this group's profile can be found in the study *Konsument na rynku – postawy i decyzje zakupowe* [The consumer on the market – attitudes and purchasing decisions] (Wolanin-Jarosz, 2010, p. 53 onwards). Generation Y are people born after 1980, brought up on information coming from Google and Facebook. The

principal characteristics of this group are tolerance, diversity, trust and appreciating the value of community work; and the main channels of communication are social networking sites. Finally, generation Z is a mobile generation, preferring e-newspapers and e-books to their traditional counterparts. These are people who use modern Internet and telecommunications technologies as well as many mobile applications. They are passionate about new models of smartphones, i-pads and other electronic devices. It is this generation that is the target segment of marketing activities based on cooperation with customers as part of the concept of prosumption.

## 10.2. The essence and examples of prosumption

Prosumption is a combination of two terms, production and consumption, and this combination involves the interpenetration of the processes connected with consumption and production, creating a single final element (Szul, 2013, p. 347 onwards). Although this concept has been known since the late 1970s, it is only in the last few years, as a result of the dynamic development of information and communication technologies, that the average consumer has been able to participate in the prosumption of many goods and services. A prosumer is an active consumer who collects and possesses some information about the brands that interest them. Such consumers expect more personalized products, accompanied by intriguing and engaging messages. Prosumers often feel overwhelmed by the information provided through conventional channels so more creative forms of communication are required to reach such people. Moreover, being active, prosumers often disseminate their own knowledge and ideas about goods and services, thus affecting the buying choices of other consumers (Perenc and Rosa, 2011, p. 153).

Prosumption can take the form of two strategic solutions. In the first one, both the consumer and the manufacturer actively participate in the creation of a product or service; in the second one, companies develop a basic product which the consumer can personalize according to their preferences. Thus, prosumers can be divided into those who only evaluate and assess certain products or services, and those who become involved in improving the offering, products or communications.

One feature of the contemporary market, which is characterized by a permanent predominance of supply over demand, is that people are surrounded by a variety of different products and services that often seem very similar. However, a natural characteristic of a wealthy and educated consumer is the desire to emphasize their individualism, personality and lifestyle. Today, young people treat the world as a place of creation, not consumption (Tapscott, 2010, p. 351). The generations of the Internet age and globalised markets are turning away from static non-modifiable products, offered according to the principle of a standard products for an average consumer, and are opting for those that can be designed,

modified and boasted about in virtual spaces, for example on social media. Today, globalization is considered to be one of the main distinguishing features of 20<sup>th</sup> and 21<sup>st</sup> century societies (Gardocka-Jałowiec, 2015, p. 162). It promotes the spread of consumption patterns, creating a supranational structure of consumption and global consumer segments, which are defined on the basis of values, behaviour, and attitudes towards products and brands (Włodarczyk, 2013, p. 53).

Modern prosumers are people who are in a sense designers, stylists or copywriters; that is they are external resources for companies, used on an outsourcing basis. Their role is to voluntarily and actively participate in the design and manufacture of ever better products, thus increasing the innovative potential of a company, which leads to the building of new sources of competitive advantage. A great number of companies use such practices, for example:

- John Fluevog Shoes, a producer and designer of exclusive footwear, manufactures shoes made according to the best designs submitted by their customers;
- the car company BMW put on its website a digital design tool for submitting innovative construction ideas;
- the toy manufacturer Lego involved its customers and DIY enthusiasts in co-creating products and implementing joint innovative solutions.

One of the precursors of prosumption was Jones Soda Co., which came up with the idea of allowing customers to create their own labels for the company's beverages and which in 1999 launched a range of products called *myJones*. Personalizing the label involved designing it and inventing a name for the drink. The company encouraged its consumers to design labels that would include images of themselves or relate to their hobbies. Products personalized in this way could be ordered through the company's website, which greatly facilitated communication with customers. A similar project was implemented by Pepsi. The company launched an online game which included a video and animated 3D characters. The users could decide on all the features, from the logo, through the colour, to the taste of the product. In order to ensure a lot of publicity, the winner of the competition was selected in an online vote. Nutella, in turn, introduced special jars of their chocolate cream, on which, instead of the normal name of the product, customers could put the name of the person to whom they wanted to give it as a gift. Other companies which have a significant potential with regard to prosumption are property developers, who can involve customers in the process of designing their houses and apartments. All they need to do is create a special computer programme that would make it possible for customers to design each room down to the smallest detail.

Prosumption is growing in popularity with regard to products from the FMCG category. Examples of companies that have embarked on offer individualization include the company Maspex, which decided to vary the design of its two flagship products: Kubuś fruit juices, addressed to the youngest consumers; and Tymbark drinks, a very popular brand for a number of years. Consumers can co-create

their personalized versions using an online creator available on the company website.

An excellent example of implementing the principles that underlie the success of prosumption is the strategy of the Swedish furniture maker IKEA, which has 328 stores in 28 countries, including 10 furniture discount stores in Poland. The company encourages its customers to assemble the furniture themselves so that the average customer can prove that they are thrifty, because furniture which requires connecting many elements is by definition less expensive than the traditional, fully-assembled products. Thus, the customer receives a neatly packaged set of components together with assembly instructions. The instructions are pictorial rather than verbal, and are so simple and communicative that the average customer is able to, without any additional tools not included in the set, put together their furniture. In addition, IKEA utilises the potential of the customers in the design process by encouraging them to design their interiors using a 3D visualisation computer application that allows them to choose the best furniture and arrangement for a room. This “do it yourself” approach is prevalent not only in IKEA’s business model, but also in the models of many other companies and industries. On the Internet a large number of applications can be found which encourage Internet users to engage in various hobbies; for example in such areas as gardening, interior decoration, cooking and dressmaking. As regards dressmaking, this strategy was employed by the fashion company Place for Dress, which developed the production of made-to-order dresses. The unique feature of the business model adopted by this company is the fact that the entire process of planning and designing dresses and other items of clothing is performed by their partners-customers, who design their dream outfits themselves by choosing the sizes, colours, materials, accessories, etc. This means that the customer does not, for example, have to worry that at a party she will see a woman wearing an identical dress. As a result, Place for Dress attracts customers who value uniqueness and the ability to create a one-off product. Interestingly, such customers are willing to accept above-average prices for the clothes designed by themselves. Men, on the other hand, can design a car or a motorbike, for example, with a look that nobody else will have. This desire to stand out is used by the car manufacturer Ferrari in advertising with the ambiguous slogan “Two Ferraris in the same street is a certain catastrophe” This is an excellent example of a play on words, which have been used in a humorous way.

Another example of a brand which provides buyers with a personalized product is Nike. Customers can design their own sports shoes, which will be made of the material and in the colour chosen by them. The added value of this offer is not only the fact that the customer receives a product which is fully tailored to their preferences, but also that it will most probably be the only such model on the market. The NIKEiD application, which permits customising a range of Nike shoes, encourages customers with such catchy advertising slogans as “Express your personality” and “Stand out on the pitch.” The end product is worth the wait of up to 3 weeks, even despite the high prices of such shoes (Ciechomski, 2016). The personalization of tennis shoes was made available by Nike as early as 1999.

The customer was able to decide on the colours and materials they wanted for the various parts of the shoe such as the sole, laces and stitching, or on the colour of the manufacturer's logo and the initials of the owner. As the popularity of this service grew, in 2009 the company launched an application which permitted even faster customization of shoes. The application enables customers to, among other things, arrange the time for a meeting with a design specialist and use the visualizations developed by the NIKEiD Studio.

### 10.3. Determinants of prosumption

Today's customers are very demanding: they want to be unique; they want to reap the physical and emotional benefits of consuming, possessing and using products which are perfectly suited to their needs. There is no doubt that such a profile of the modern consumer has to a large extent been influenced by the development of the Internet and mobile communications, as well as globalization and a number of other determinants connected with the macro environment. Moreover, these are consumers who above all value uniqueness. They want to have unique houses, exclusive cars, unique watches and designer clothes (Ciechomski, 2016). They are also innovative, educated and have rapid access to multiple sources of information (Wanat, 2010, p. 146).

An important feature of the modern consumer is access to vast sources of information. The Internet has revolutionized the forms of marketing communication with consumers (Ciechomski, 2013, p. 85). Traditional tools such as press or TV advertising are in decline. The minds of the majority of consumers, especially the younger ones, have been captured by social media, which make use of modern mobile devices and constant access to the Internet regardless of where the consumer is. In these circumstances, companies transfer their social communication to the virtual world.

A typical prosumer is characterized by an above-average awareness of their rights. Besides, being a young person and a representative of the Internet generation, they love modern mass communication technologies together with all their functions and applications. These technologies enable the creation of a product or service without leaving home. With the advent of Web 2.0 and the emergence of blogs and other lesser-known tools such as affordable video processing software and simpler interface tools, the chances of prosumerism are rising (Tapscott, 2010, p. 351).

A prosumer is an active market participant and a commentator, often also an initiator of discussions. Exchanges of beliefs, views and opinions can be anonymous, semi-anonymous or restrictive. In the latter case, the forum users must be logged in. Examples of sites on which there is an active exchange of opinions and product evaluations by people interested in buying certain goods include the following: [www.ceneo.pl](http://www.ceneo.pl), [www.opineo.pl](http://www.opineo.pl), and [www.skapiiec.pl](http://www.skapiiec.pl). Prosumers are keen

to use online solutions in order to quickly obtain or verify their own opinion about a given product.

Prosumers prefer a creative and innovative approach to various matters. They do not want to be passive observers; that is why they want solutions which make it possible to generate personalized offers. Representatives of generation Y perceive today's world as a place of fun and mass consumption in a reality of over-abundance of standardized products. In view of this, they want to express their individuality and uniqueness, which often entails setting new market trends, thus fulfilling the roles of innovators and the avant-garde of society. They are sophisticated consumers who desire uniqueness and elitism, which are the opposites of massification and mediocrity. Their reluctance regarding standardised products is accompanied by an aversion to traditional mainstream media. This is caused by, among other things, long commercial breaks, aggressive advertising, and a shortage of attractive content on many almost identical stations. Such a situation gave rise to the emergence of the concept of inbound marketing, which relies on the consent of the recipient of a message and is used by websites, blogs, forums, content marketing, search engine optimization, and social media.

The popularization of prosumer attitudes is strongly connected with an increase in the amount of consumers' leisure time and the ability to perform professional duties at home, for example in the form of teleworking. Consumers who have more time are keen to share their opinions online, as well as being much more likely to use the services of online stores. Moreover, a large amount of leisure time encourages consumers to develop new interests and hobbies, the inspiration for which can be found in modern electronic media such as blogs, fanpages, YouTube, as well as television and specialist websites.

Prosumption, which consists in involving end users in the process of designing products, is a rapidly growing trend. More and more companies are deciding to engage their customers in the production processes. The most important is the process of product creation, which consumers perceive as the key element because in this way they can have the greatest and most visible share in the process of producing goods. Such practices undoubtedly help companies to succeed, as well as strengthening brand loyalty among consumers. This is particularly important in view of the fact that in today's market reality the trend of declining brand loyalty among consumers is increasingly noticeable (Easte et al., 2014, p. 128). At the same time, prosumption poses certain risks. If a consumer feels that they have put considerable effort and a lot of time into creating an original idea for their favourite brand, but this idea is rejected and the new innovative product is not commercialised, they may become disenchanted with the company and its offering.

Prosumption seems to be the perfect solution because both sides derive benefits from it. Customers receive personalized products, and manufacturers get an opportunity to increase sales. However, the decision to implement a business model based on prosumption is difficult for the management of companies which own renowned brands because a company that gives its customers a free hand and allows them to copy their products risks a cannibalization of its business

model and loss of control over its sources of competitive advantage. On the other hand, a company which fights against the users of its products harms its reputation and cuts itself off from a potentially valuable source of innovation (Tapscott, Williams, 2008, p.199).

Prosumption can be viewed from the perspective of both its supporters and opponents. A range of interesting opinions on this subject can be found in a work edited by Piotr Siuda (Siuda P. (ed.), Żaglewski, 2014, p. 7 onwards). An unquestionable advantage of prosumption lies in its comprehensive identification of consumers' needs, whose sources are consumers themselves, not research and development departments. The main cost incurred as a result of introducing prosumption practices is the cost of developing and implementing technological solutions which enable consumers and end users to create their own versions of products. This cost, however, does not constitute an insurmountable barrier for companies in a good financial condition. Therefore, it can be said that prosumption is increasingly replacing traditional consumption, and modern manufacturers are more and more willingly taking advantage of the involvement of prosumers.

## Conclusions

In summary, prosumption begins when a customer becomes emotionally involved in the process of manufacturing a product. One can venture a claim that an individual approach to the consumer is possible in every sector, and whenever a seller faces a customer who has their own personal preferences, a good relationship between the two sides is the key to market success. A characteristic feature of prosumption is a voluntary modification of a product so that its final version better fulfils the expectations of the user. In other words, prosumption means manufacturing a product or service for one's own use. Consumers willingly participate in the planning, production, evaluation and modification processes. The ultimate success of these operations lies in the appropriate emotional involvement of the end user in the manufacturing and purchasing process.

The examples described in this article refer to companies which construct and implement their own strategies for customer communication, which are based on personalization and which address the prosumer attitudes of buyers. If it was not for every consumer's innate need for individuality, these companies would not have much chance of success. The popularity of prosumption encourages other entrepreneurs to implement the benchmark standards. The managers of numerous long-established companies are becoming increasingly convinced of the merit of such practices because they involve consumers in the creation, in a literal and figurative sense, of unique products or services.

## References

1. Ciechomski W. (2013), *Możliwości wykorzystania Internetu w promocji jednostek terytorialnych*, [in:] W. Ciechomski, R. Romanowski (eds), *Marketing terytorialny oparty na wiedzy*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
2. Ciechomski W. (2016), *Masowa kastomizacja jako forma komunikacji rynkowej z konsumentami*, Wydawnictwo UE Wrocław (forthcomming), Wrocław.
3. East R., Wright M., Vanhuele M. (2014), *Zachowania konsumentów*, Oficyna a Wolters Kluwer business, Warszawa.
4. Figiel S. (2010), *Marketing w realiach współczesnego rynku. Implikacje otoczenia rynkowego*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
5. Gardocka-Jałowiec A. (2015), *Zmiany w konsumpcji a kreowanie innowacji*, Wydawnictwo Uniwersytetu w Białymstoku, Białystok.
6. Hulten B., Broweus N., van Dijk M. (2011), *Marketing sensoryczny*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
7. Kozłowska A. (2005), *Reklama. Od osobowości marki do osobowości konsumenta. Instrumenty kształtowania wizerunku marki*, Wyższa Szkoła Promocji, Warszawa ([http://www.wsp.pl/file/737\\_512466172.pdf](http://www.wsp.pl/file/737_512466172.pdf); accessed: 13.04.2016).
8. Perenc J., Rosa G. (red.) (2011), *Zachowania nabywców*, Uniwersytet Szczeciński, Szczecin.
9. Rudnicki L. (2012), *Zachowania konsumentów na rynku*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
10. Siuda P. (ed.), Żaglewski T. (2014), *Prosumpcja pomiędzy podejściem apokaliptycznym a emancypującym*, Wydawnictwo Naukowe Katedra, Gdańsk.
11. Szul E. (2013), *Prosumpcja jako aktywność współczesnych konsumentów – uwarunkowania i przejawy*, [in:] M. Woźniak (ed.), *Nierówności społeczne a wzrost gospodarczy*, Zeszyty Naukowe UniwersytetuRzeszowskiego, 31, Rzeszów.
12. Tapscott D. (2010), *Cyfrowa dorosłość*, Wydawnictwa Akademickie i Profesjonalne, Warszawa.
13. Tapscott D., Williams A. (2008), *Wikinomia. O globalnej współpracy, która zmienia wszystko*, Wydawnictwo Akademickie i Profesjonalne, Warszawa.
14. Toffler A. (2001), *Trzecia fala*, Państwowy Instytut Wydawniczy, Warszawa.
15. Wanat T. (2010), *Atrybuty produktu a konstruowanie preferencji przez nabywców*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań, p. 146 onwards.
16. Włodarczyk K. (2013), *Rynkowe zachowania konsumentów w dobie globalizacji konsumpcji*, Wydawnictwo Adam Marszałek, Toruń.
17. Wolanin-Jarosz E. (ed.) (2010), *Konsument na rynku – postawy i decyzje zakupowe*, Wydawnictwo PWSzT-E w Jarosławiu, Jarosław.

# Chapter 11

## Online Financial Services as an Opportunity for Foreign Currency Borrowers

Piotr Maicki

**Piotr Maicki:** PhD student at the Institute of Value Management, Warsaw School of Economics

**Abstract:** This article describes the socio-economic problem of foreign currency borrowers relating to the instability of exchange rates and the institutional arrangements in Poland. On the basis of theoretical currency specifics and credit markets, the empirical aspects of these areas in the socio-economic problem context are discussed. The economic unattractiveness of traditional methods of exchange in banks and exchange offices along with legislative changes have resulted in the development of a niche for online currency exchange platforms. The low barriers to the creation of websites on the Internet and the low operating cost of their functioning makes them easily accessible and cheap, but also entail additional risks. The large area of activities on the world-wide web allows for the virtually unlimited extension of their business model. Research has been conducted on the specificity and cost-effectiveness for the use by customers of online exchange platforms in comparison with that offered by banks and traditional money changers. The research confirmed the adopted hypothesis that online exchange platforms offer more favourable exchange rates compared to those offered by banks and traditional exchange offices, and thus play an important socio-economic role in the current situation in the credit and currency markets.

**Keywords:** currency, loans, banks, internet

**JEL classification:** G21, G23, O31, O35, F65

## Introduction

In the period June – September 2011 there was a depreciation of the zloty, accompanied by an increased volatility in the exchange rate of the zloty against the euro. This was mainly influenced by global factors. The sudden depreciation of the zloty was caused by a significant increase in aversion to risk within global financial markets. This was due to the worsening situation of public finances in some of the eurozone countries, as well as worse than expected macroeconomic data regarding global economic growth. This prompted some investors to take their profits from speculative investments and transfer funds to the currency markets of the countries recognized as “safe havens” (NBP, 2011, p. 22–23).

2010 saw a 5–6 percent year on year rate of increase in loans for the non-financial sector; but in 2011 this accelerated to about 7–8 percent. The components of stable growth in the general credit aggregate for the period until June 2011 included a variable pace of changes in the data for the categories of loans comprising it.

The fastest and most steadily growing category of loans was housing loans. In 2011, the number and amounts of monthly loan growth remained at a similar level as a year earlier.

In 2009, there was a significant decrease in the quantity and value of loans due to a significant tightening of credit policy by banks in the fourth quarter of 2008 (NBP, 2009, p. 29). In subsequent quarters the principles for granting loans in this category were tightened, especially at the turn of 2011/2012, but on a significantly smaller scale. In 2011, the amended Recommendation S regarding good practice in managing credit exposures financing real estate and secured by a mortgage came into force. This was accompanied by a noticeable reduction in credit spreads. Since the outbreak of the global financial crisis only the currency structure for granting housing loans has changed in favour of the euro against the Swiss franc, with an ever-dominant number of zloty-denominated loans. The share of foreign currency loans in the second half of 2012 decreased due to the decline in the number of banks offering such loans.

On the other hand, consumer loans were the only category of loans with negative dynamics. This situation was related to supply-side factors, in particular the tightening of bank lending policies in 2008–2010 caused by a significant deterioration in 2009 of the quality of already granted loans, as well as sanctioned by the provisions in Recommendation T 2010, concerning good management practices in retail loan exposure risks. Since that time, there have been no significant changes associated with bank credit policy in relation to consumer loans.

## 11.1. Changes in legal regulations concerning foreign currency loan repayments

The Financial Supervision Authority, acting pursuant to:

- Art. 137.5 of the Banking Act relating to the issue by the FSA of recommendations on “best practice for the prudent and stable management of banks” and
- Art. 11.1 of the Act on financial market supervision relating to the properties of the FSA in terms of passing resolutions, including the issue of administrative decisions and the provisions set out in separate provisions, released Recommendation S (II) in 2008 “on good practice in secured credit mortgage exposures” (FSA, 2008).

In accordance with Recommendation S (II), restrictions in the freedom of banks in this area are also associated with costs and inconveniences on the side of the banks’ customers. Changes to the currency of loan repayment is entails the signing of an additional annex to the contract, for which a fee is charged from 100 to 500 PLN depending on the bank.

In practice, repayment of a currency instalment forces the client to have a currency account in the bank. If the customer only has a technical account to pay loan instalments to the lender bank, they will need to open a currency account. This applies in particular to banks not providing cash services.

With regard to these additional costs and difficulties related to the changes in loan repayment, it is reasonable to balance the advantages and disadvantages of the solution, among other things, depending on the moment of signing the annex, or the difference in the amount of bank and exchange office spreads. The general advantages and disadvantages of changing the manner of loan repayments are presented in the table below.

On 29 July 2011, the Polish Parliament passed a law amending the Banking Law as well as other laws, commonly referred to as the “anti-spread” act. The new law came into force on 26 August 2011 taking into account the 14-day

Table 1. Advantages and disadvantages of repaying loan instalments directly in a foreign currency.

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>– Lower rate spread</li> <li>– Lower monthly loan instalment</li> <li>– Liberation from foreign exchange rates freely determined by banks</li> </ul>	<ul style="list-style-type: none"> <li>– The need to make a monthly purchase of francs and deposit the instalment amount in the bank</li> <li>– Additional costs (annex, currency account maintenance fee, etc.).</li> <li>– Possibility of obstructions on the part of the bank</li> <li>– The decision is taken only once and is valid until the end of the contract</li> </ul>

Source: Own study based on [http://kredytopedia.pl/wiki/Rekomendacja\\_S\\_\(II\)](http://kredytopedia.pl/wiki/Rekomendacja_S_(II)), accessed on March 15, 2016.

vacatio legis (Internet system of legal acts by Polish Parliament) (Act of 29 July 2011 amending the Banking Law Act – and some other acts). The main aim of the changes was to enable the repayment of a currency loan with independently purchased foreign currency. This solution is the most beneficial for borrowers, as the exchange rate in banks is higher than on the open market. Repayments can be made directly to the bank by electronic transfer or postal order (Rzeczpospolita – Prawo, 2012).

Despite the high hopes associated with the changes, bankers are sceptical about the new law. According to experts, it will not change the situation of Swiss franc loan holders as the new law may even lead to increases in the spreads of exchange offices, which in turn can be dangerous due to the lack of state control in the form of the Financial Supervision Authority of the exchange offices (Rzeczpospolita – Prawo, 2012) (Polish Press Agency, 2011). The main problem of borrowers will be, in principle, the high exchange rate of the Swiss franc, and not high bank spreads (Rzeczpospolita – Prawo, 2012).

Moreover, holders of Swiss franc loans do not require special protection from the state and financial institutions, because according to statistics, these loans have a high rate of repayment, in spite of long-term instability of the Swiss franc. For comparison purposes, the repayment rate is higher than that of zloty-denominated loans. The cause of the above facts is that borrowing in francs is mainly done by economically better off persons, with a high income and having better credit worthiness (Rzeczpospolita – Prawo, 2012).

As already mentioned, the banking community has doubts about the constitutionality of the introduced amendment. It can thus undermine the credibility of our country due to hampering, to a large extent, of the assessment of banking activities in Poland in the absence of tangible benefits for the borrowers (Rzeczpospolita – Prawo, 2012) (Polish Press Agency, 2011). On the other hand, according to G. Maliszewski, chief economist of Bank Millennium, Poland is not threatened by decline in reputation in the eyes of foreign investors, because, among other things, Hungary has taken much more radical initiatives in this area without any significant impact on the perception of the Hungarian banking system by foreign investors (Polish Press Agency, 2011).

It should be noted that even before the introduction of the “anti-spread” act the Financial Supervision Authority issued Recommendation S (II), which ordered the banks to charge loan instalments directly in foreign currencies. However, such a right was only exercised by a small percentage of borrowers, mainly due to the costs of the annex to the agreement, maintaining a foreign currency account and the transfers, as well as ignorance of the new law. In contrast to the recommendation of the Financial Supervision Authority, the anti-spread amendment is much more media-propagated, and the additional costs are to disappear. However, its effectiveness, thus lowering the costs of credit instalments by spread (Polish Press Agency, 2011), will depend on the willingness and ability of borrowers to benefit from its provisions. The main activity of borrowers will now be a search for the cheapest currency in the market and its delivery to the bank. According to calculations by M. Krasoń of Open Finance, savings,

thanks to the features of the new law, can range from 30 to 70 PLN per month (“up to 20 PLN per 100,000 PLN loan”) (Polish Press Agency, 2011) depending on, among others, the value of the loan and the rate of the acquired currency (Polish Press Agency, 2011).

However, the potential savings for the borrowers is associated with losses for the banks. Firstly, if the profitability of the bank for loans in foreign currency decreases by depriving them of the possibility of earnings from the spreads, these institutions will certainly begin searching for ways to recover the already mentioned lost income. They can be found in the area of loans in the growth of margins and loan fees or encumbering customers with other additional costs, e.g. in the form of insurance (Polish Press Agency, 2011). Compensation for banks may occur in other banking products in the form of increasing commissions or deposit margins (Polish Press Agency, 2011).

Secondly, the banks granting loans in foreign currencies are required to prepare financial backing for their own needs. This includes entering into long-term agreements with foreign institutions in order to gain access to the currencies. The discussed amendment in the law creates uncertainty, and at the same time a disturbance in relations with the financial partners of banks, since these agreements were calculated differently in the conditions before the introduction of the amendment (Polish Press Agency, 2011).

Thirdly, the large demand in exchange offices for Swiss francs, though not as popular as the euro or the dollar, may result in a rise in exchange office spreads or a lack of the currency in exchange offices (Polish Press Agency, 2011). At the time of passing the amendment by parliament, exchange office spreads for the Swiss franc were significantly higher than for other currency pairs. Therefore, for the average borrower, the net effect may be negligible.

Experts point out, however, a chance to exchange currencies at rates more attractive than in stationary facilities. In this regard, Internet platforms for the purchase or exchange of foreign currencies enjoy growing popularity. The speed and ease of exchange and the attractive prices induce more people to take advantage of the offer by such websites.

## 11.2. Internet currency exchange platforms

In the face of adverse changes in exchange rates, and the high commissions of banks, the demand has emerged for cheap and safe ways to obtain currencies. The supply response of the market is the creation of dozens of exchange platforms on the Internet. The new solutions are also competition for stationary currency exchange offices. These institutions have lost their dominant competitive position in relation to banks upon exceeding the point of profitability of their business, because they are not able to reduce their commissions due to the high costs of running a stationary point of exchange. However, in the face of rising exchange rates on bank loans, borrowers expected an even bigger elimination

of exchange rate increases by exchange office owners. The high demand for foreign currency from borrowers and businesses trading with foreign countries accelerated the development of Internet currency trading platforms. Their creators and owners noticed the formation of a prospective market niche. However, they did not stop at simply copying the business model of stationary exchange office within the virtual world. They began to look for new solutions for exchange that were attractive to the customer.

Despite the innovativeness of these solutions, there is no shortage of sceptical opinions, calling attention to the hazard of fraudsters using the situation in the loan and currency market, since the Internet exchange platforms are not subject to supervision and the barriers to entry into the business is extremely low. The manner of operation of such services raises legitimate doubts about their safety. A user, after registration on the site, entrusts the platform with their money by making money transfers to the website. However, any currency bought is transferred to the user's account only after a certain time – from several minutes to 24 working hours. Therefore, the user's trust that during the financial operation their funds are safe is fundamental.

The relatively short period of their market presence is certainly not conducive to building confidence in the market. Despite this, Polish currency exchange services use other varied arguments. The main proof used by most services, aimed at certifying that a website is safe to use, is their registration in the register of foreign exchange market operations kept by the NBP president. Realistically, this is not a guarantee of security, as the registration is only a formality arising from the foreign exchange law rather than a protection for users. In addition, for example, the owners of the *Internetowykantor.pl* platform include information that they operate as two individuals in the form of a general partnership. This means that the partners are responsible for the obligations of the company with all their assets. In turn, the owners of the site *Cinkciarz.pl* stress that they have purchased insurance with a value of 2 million PLN from one of the largest insurance companies. However, the values of the security presented cannot be objectively assessed, as the list of exclusions of liability by the insurance company has not been provided. The *DomWaluty.pl* platform emphasizes that the safety of doing the operation, as regards its merits, is ensured by the dealer team of the brokerage house which is a co-owner of the site. That, however, is not significant for the safety of funds paid for by the users. The questionable value of the arguments for creating a positive image of the site is confirmed by Ł. Dajnowicz, a spokesman for the Financial Supervision Authority, stating that the fact of FSA supervision over an entity, the shareholder of a company, does not determine the Authority's supervision over the activities of the company itself (Ceregra, 2011).

Despite many doubts about the fairness and safety of such sites, the platform *Walutomat.pl* has attracted 25,000 members. And, for example, 4 million PLN is the record daily turnover of *Internetowykantor.pl*. Prospects for the development of this niche in the Polish financial market are positive, as the group of potential users is at least 730,000 people – those repaying mortgages in Swiss francs (Ceregra, 2011).

Online exchange platforms have already created some modifications to the way exchange is done: on the one hand, giving good profits to the website owners; on the other hand, providing a better chance of saving money in currency conversions. It is therefore necessary to distinguish three types of services: the exchange office model, the auction model, the collective (group) model.

The exchange office model is the simplest and most widespread pattern of Internet business for an exchange platform. Its assumptions are based on the model of a real stationary exchange office. In its virtualized form, such a site also acts as an intermediary: on the one hand, buying the currency at a lower price; on the other hand, selling it at a higher price. The profit of a site is based on the difference between the selling and the buying price. All operations are done through electronic transfers. The entire operation of the service is automated. Confirmation as to the authenticity of a user is based on the data of the owner of the account from which the transfer has been forwarded to the site. A virtualized currency exchange office is more convenient for users as they can quickly exchange the currency in a secure way. In turn, the form of service ensures the minimization of cost for owners in comparison with a stationary facility.

On the Polish market of online exchange platform, there is only one running its business according to the auction model – Walutomat.pl. The basic feature that distinguishes it from the exchange office model is the role of the service in the process of exchange. In the exchange office model, the site is an intermediary, and thus acts as an entity – legally it buys and sells currency. In turn, in the auction model, it is only an exchange platform, providing users with infrastructure and software functionality to make the smooth exchange at a rate satisfactory for both parties to the transaction. An analogy to the auction model could be sought in the operational models of such services as Allegro.pl or eBay.com. The site – an auction platform for exchange – takes a commission on any exchanged amounts, which forms its revenue. The entire operation of the service is automated, and cash operations are only done electronically.

In Poland there is one service belonging to the collective (group) model – Ratomat.pl. This platform, in contrast to the two previous models, is dedicated exclusively to people repaying loans in a foreign currency. It uses the effect obtained on group buying sites, for example Groupon.pl or Citeam.pl. In Ratomat.pl users place a demand for exchange of a certain amount of money (credit instalment) in another currency. With the wholesale exchange of a large sum, customers will have a more favourable exchange rate. The website earns a specific commission on exchange. The role of the site is not limited to the subject of the transaction, but neither does it act passively in the exchange, because it buys the currency on behalf of a group of users. The site therefore plays an active role as an exchange platform. Also in this model the entire operation of the site is automated, and cash operations are only done electronically.

In order to compare market currency exchange offers market research was carried out, the aim of which was to gather information regarding the buying and selling rates of authorized entities in order to determine the profitability of each of the forms of exchange. This means that the study and the conclusions

Table 2. Comparison of characteristic features regarding the functioning of exchange platforms in the Polish market.

Feature	Model		
	exchange office	auction	collective (group)
Role of service	party to transactions	passive exchange platform	active exchange platform
Users	everyone in accordance with rules	everyone in accordance with rules	only the borrowers
Pattern	stationary exchange office	auction sites	group buying sites

Source: Own study.

therefrom are assessed from the customer's perspective. The hypothesis studied is to find out whether Internet exchange platforms offer better market exchange conditions (less % spread) for the customer than banks or traditional exchange offices in Poland. This study was intended only to obtain an illustrative image of the foreign exchange market in Poland in the adopted category terms. The resulting number of observations provides the possibility to draw objective conclusions in this matter. However, intra-category classifications are not taken into account due to the subject matter of the paper, as well as the non-representative number of observations, and the adopted statistics reflect as accurately as possible the inter-category relationships.

This study was conducted on a sample of 79 subjects. The data collected during the study were used to draw conclusions about the profitability of making foreign exchange transactions in five individual groups of entities: banks (26 leading commercial banks in the market in Poland) including the National Bank of Poland; stationary exchange offices (30 randomly selected exchange offices from different locations in Poland); Internet exchange offices (20 randomly selected); social media currency exchange services (1 existing on the Polish market); and group exchange services (1 existing on the Polish market).

Among the four currencies under consideration, the order of the groups of entities is identical. The best market offer was put forward by the group of social exchange services, which includes Walutomat.pl. The group of online exchange offices took second position. However, the offer should be carefully selected, because this group provides very diverse offers, especially if they relate to the Swiss franc. Third place was taken by stationary exchange offices. This group was also characterized by the greatest observed diversity in all four currencies. The least favourable for customers was the offer from banks. This group also demonstrated the smallest average differences in the average % spread compared to the two previous groups.

## Conclusions

Thus, on the basis of the results of the study, the established hypothesis that Internet exchange platforms offer better market exchange conditions (lower % spread) for the customer than banks and traditional exchange offices in Poland can be unequivocally confirmed. This finding is also the crowning argument reinforcing the global thesis of this Master's thesis that Internet exchange platforms play an important socio-economic role in stabilizing and redressing the situation of the foreign currency borrowers with regard to exchange rate instability and legislative changes in Poland.

## References

1. *Anti-spread act signed*, Rzeczpospolita – Prawo (2016) (<http://www.rp.pl/artykul/699407.html>; accessed: 12.03.2016).
2. Ceregra P. (2016), *Franki z kantoru w Internecie: tanio, ale na własne ryzyko*, *Ekonomia24.pl* (<http://www.ekonomia24.pl/artykul/722569.html>; accessed: 14.03.2016).
3. Interia.pl-Business (2016), *Very important news for Polish borrowers*, Polish Press Agency (<http://biznes.interia.pl/finanse-osobiste/news/bardzo-wazna-wiadomosc-dla-polskich-kredytobiorcow,1674525,4141>; accessed: 15.03.2016).
4. *Recommendation S (II)* (2008), Financial Supervision Authority, Warsaw.
5. *Report on Financial Stability* (2012), National Bank of Poland, July 2012.
6. *Report on Financial System Stability* (2011), National Bank of Poland, December 2011.
7. *The Act of 29 July 2011 amending the Act – Banking Law and some other acts* (2011), Journal of Laws, 165, item 984.



# Chapter 12

## In-Class Focus Groups with Local Representatives as a Tool for Strategic Thinking

Kirill Rozhkov, Natalya Skriabina

**Kirill Rozhkov:** Professor in the Department of Company Marketing of the Higher School of Economics in Moscow

**Natalya Skriabina:** Independent consultant

**Abstract:** Local strategies and brands must be created on the basis of the hopes and aspirations for the future of the place felt by stakeholders and their active participation (Allan, 2015). However, as a rule, “practitioners and local authorities are not able to define their own needs” (Kavaratzis, 2015). Strategies and brands require a rigour of thought and process (Allan, 2015) that is more typical for experts than for ordinary people. Therefore, “practitioners need from experts to provide them with clear concepts and a strategic view” (Kavaratzis, 2015). The question that remains to be answered, then, is: How should experts accomplish this without replacing the local representatives’ strategic vision with their own? This paper aims to develop a methodological approach to stating a vision of a place that allows experts to help local stakeholders transform their hopes and aspirations for the future into a rigorous form suitable for building place strategies and brands. The methodology combined learning and decision-making, was based on focus groups formed by local representatives who passed corporate training sessions and included three stages. First, focus group participants formulated strategic visions of their place intuitively (without any tools or assistance). Second, they built strategic matrices under the guidance of experts, but using their own categories, terms, language constructions, etc. Finally, they formulated new strategic visions for the place, applying the matrices that they constructed. Strategic visions formulated in the third stage, in comparison with those obtained in the first one, were more rigorous and detailed, on one hand, and reflected the intrinsic nature of the place, on the other. First, theory and analytical tools for stating place vision were co-created by expert and practitioners. This entailed systematizing the everyday consciousness and experience of the participants and transforming

them into scientific consciousness and experience, rather than replacing them with the professional experience of the expert. Second, the use of the co-created tools in building the vision of a place enabled the practitioners to think strategically and creatively and thus gave them the main role in the strategic process, while the expert assumed the role of facilitator. The methodological approach that has been developed is a much-needed supplement to existing techniques used in place management. It allows local stakeholders to implement place identities into organic strategy and brand.

**Keywords:** local planning, strategic vision, focus group

**JEL classification:** M39, R58

## Introduction

Local strategies and brands must be created on the basis of the hopes and aspirations for the future of the place felt by stakeholders and their active participation (Interview: Place Branding..., 2015). However, as a rule, ‘practitioners and local authorities are not able to define their own needs’ (Kavaratzis, 2015). The fact is that at the stage of strategy development, what is most needed is abstract thinking. Strategies and brands require a rigour of thought and process (Interview: Place Branding..., 2015), that is more typical for experts than for ordinary people. Therefore, “practitioners need from experts to provide them with clear concepts and a strategic view“ (Kavaratzis, 2015).

A paradox occurs when viable local strategies and brands are being developed. On one hand, when local representatives are replaced with experts when the vision is being formulated, the basic principle of participation is broken, because local representatives are the ones who should support and implement the strategy. But at the same time, the removal of experts from the process is not advisable because local representatives do not possess the crucial expert skills. The question that remains to be answered, then, is: *How should experts accomplish this without replacing the local representatives’ strategic vision with their own?* This paper aims to develop a methodological approach to stating a vision of a place that allows experts to help local stakeholders transform their hopes and aspirations for the future into a rigorous and reflecting place identity form and thus suitable for building place strategies and brands.

### 12.1. Methodological considerations

The methodology for place strategy and brand development for places should be based on the involvement of local stakeholders (LS) in the statement of the strategic vision and on the proper distribution of roles between these stakeholders and external experts. The experience of LS is an invaluable source of a place’s

distinctive properties, or its identity. The experience of the experts is valuable for another reason: they know how to think logically and on an abstract level. Thus, their role is to facilitate the strategic thinking of local stakeholders, ensuring the rigour of searching for and describing place identities. Therefore, experts face certain challenges in teaching local stakeholders to utilise their experience in the format of strategic thinking. This implies that the methodology should combine both decision-making and learning processes.

The first task of experts is to transform the emotional (or subconscious) sense of place into a rational form; i.e., to describe impressions of place using exact words, collocations, and sentences. The challenge is that all these verbal impressions should be spoken and written by LS, while experts must assist them in translating their everyday vocabulary into a more professional register.

Further, using these words, LS should comprehensively describe the existing benefits and weaknesses of their place – in other words, its starting position. The desired position of the place should be described in a similar way. A new challenge for experts is that everyday consciousness often applies an approach to people's attitudes and relations that is more evaluative ("bad" versus "good") than objective ("values" versus "alternative values" or "benefits" versus "losses"). Therefore, the second training task is to help LS to move from the evaluative to the objective approach when describing place identities.

Finally, differing points of view of LS on the present and future of their place inevitably emerge when its benefits and weaknesses are revealed and when its alternative community values are compared. Different users can consider quite different place product attributes as advantageous. Depending on the point of view of a specific segment, the ideas of a place's competitive advantage can differ widely. This variety of opinions can be considered as the most significant challenge because the competitive motivation of stakeholders often prevails over their motivation to cooperate with one another. To help LS understand other points of view as different from their own but still having the same right to exist, and not as "alien," is the most difficult training task. Without this understanding, place identity is not capable of being transformed into an executable strategy because its main executors are united stakeholders. And if they do not agree at the planning stage, the implementing stage will be fraught with conflicts.

Logic dictates that a focus group comprising LS is the most relevant method of performing the qualitative data collection that is needed to identify distinctive place characteristics and identities. However, the transfer (at least partially) of the strategic thinking function from experts to LS requires combining the process of collecting data with the processes of analysing it, comprehending it, and then making use of it for decision-making. Thus, we introduce the notion of an in-class focus group, which we define as a method of collecting and analysing qualitative data in which the participants successively take the following roles: 1) co-developers and interpreters of tools for analysis and planning; 2) respondents; 3) analysts and decision-makers. The subject of the focus group discussion is not limited by only data gathering (in the case of LS – data on characteristics of place they reside), but also includes the ways and methods of data analysis

and applying in management. Accordingly, the moderator of in-class focus group also changes his or her roles on different stage of strategic process: 1) the author (co-developer) of tool for analysis and planning; 2) moderator 3) moderator and facilitator at the same time

Tools for strategic analysis and planning (strategic matrices) should be a particular subject of in-class focus group discussions. And only a basic matrix should be given to participants by experts in the form of lectures, while the majority of the matrices should be developed by the participants themselves associatively, but on the base of the basic matrix and under the experts' guidance. According to Tompson and Strikland (1998), correctly defining a business usually requires taking into account consumer needs (what should be produced), consumer groups (for whom goods are produced), and technological and functional performance (how consumer needs should be met). This interpretation coincides with the definition of product concepts in the marketing dictionary (AMA, 2015), which has been applied to place marketing (Rozhkov, Skryabina, 2015a). The typology of place product concepts developed by the authors was the specific task of discussion in in-class focus groups.

Another difference between traditional and in-class focus groups is the principle of participant choice. The usual requirement that the participants not be acquainted with one other is not respected here, as they are learners and decision-makers who must not only know each other, but also actively interact with each other while learning and making decisions.

An important similarity between in-class focus groups and traditional focus groups is the requirement of representativeness. However, unlike in classic marketing research, the participants of an in-class focus group represent the market as a whole, -i.e., all residential groups that are somehow interested in the development of the place – as opposed to a separate segment or social group.

## 12.2. Empirical study

The main question of the empirical study is whether in-class focus groups are a viable tool for strategic thinking. We propose that this type of focus group makes it possible to transform stakeholders' hopes and aspirations for the future into a more rigorous form suitable for building place strategies and brands with minimal loss of specificity that shapes the place identity.

The empirical study was based on focus groups formed by representatives of several Russian municipalities who passed corporate training sessions. Within each class and training group, three or four focus groups (consisting of three people each) were formed. The total number of focus group participants was 45. The empirical study included three stages.

## Stage 1. Intuitive formulation of a place vision

*Operational format:* small groups. Each of small groups was seated at a separate table and assigned the following task: Imagine place you live in in the future. With what do you associate it? How is the place attractive? Discuss your associations with each other, coordinate your positions, and write a short story (five sentences as a limit) about it. The groups performed the task simultaneously over the course of 45 minutes and then gave the results to the expert. *Output:* strategic visions of the place obtained by LS intuitively without any tools or assistance.

## Stage 2. Co-development of strategic analytical tools

- 2.1. Familiarization with principles of the development of analytical tools. *Operational format:* lectures. Expert gives a lecture on the principles of building of the typology of place demand patterns (Rozhkov and Skriabina, 2015, p.108) and then answers the participants questions. *Output:* initial information about the principles of the development of analytical tools.
- 2.2. Generation of associations. *Operational format:* small focus groups. Each focus group generates associations with each place demand pattern and prepares and gives eight (by the number of basic patterns) short reports to all the participants (Rozhkov and Skriabina, 2015, p.110). An expert guides the group's work, asking leading questions and giving tips when the discussion faces difficulties. The Results section of Rozhkov and Skriabina (2015) can be used as a guide for the experts. *Output:* several (based on the number of groups) sets of associative visual images (pictures) and verbal descriptions of eight nominal places shaped using the participants' vocabulary (their own categories, terms, linguistic constructions, etc.).
- 2.3. Co-development of classifiers of place products and place use patterns. *Operational format:* small focus groups and controlled discussion. Each focus group over successively associates one place production attribute with each of the nominal places described in the previous step and prepares a report. All the participants compare and criticize the focus group's results in order to formulate the classifiers of place product and place use patterns (Rozhkov and Skriabina, 2015a, p.215). An expert provides guidance over the group's work and then moderates the discussion, helping participants to translate their verbal associations into more common managerial vocabulary and formulate the classifiers. He or she needs to ensure that the developed classifiers are full and that the classes do no overlap with each other, similarly to the given typology of place demand patterns. Thus, when logical mistakes occur, the expert should more actively intervene in the discussion, asking leading questions. The Results of the Study 1 section of Rozhkov and Skriabina (2015a) can be used as a guide for the experts. *Output:* classifiers of place product uses and technologies described in the agreed-upon terms (initially given by the participants, discussed and approved by the expert)

### Stage 3. Development of a strategic vision of the place

- 3.1. Analysis and description of the place's current position and beneficiaries (de-facto target groups). *Operational format: small focus groups and round table discussion.* The class is divided into new focus groups. Each participant chooses a focus group closest the field of his or her professional interests from the following list: sources of income; housing; public utilities; passenger transport and communications; geographical location; trade and supply; social services; culture and leisure. Thereby, each focus group provides data on one of place attributes and can analyse it professionally. Then over 40–45 minutes each group estimates the initial state of the chosen product technology attribute in the place under consideration by matching the content of the corresponding fragment of the classifier place product technologies with the empirical data about this attribute and prepares a report. All the participants over the course of 2–2.5 hours (with breaks) compare and criticize the focus group's results in order to complete the empirical matrices of product and use of the place being studied and its beneficiaries. An expert provides guidance over the group's work and then moderates the discussion, helping participants use the classifiers correctly while interpreting the data. The Data Analysis and Results of the Study 2 section of Rozhkov and Skriabina (2015a) can be used as a guide for the experts. In addition, the expert should place an emphasis on motivating participants to use behavioural and not demographic criteria when describing beneficiaries. *Output:* empirical matrices of product and use of the place being studied, defining its current position, the current vision of the place in terms of the product concept, and beneficiaries of the place.
- 3.2. Desired position of the place, target groups, and description of areas for future development. *Operational format: small focus groups and roundtable discussion.* The class is divided into new focus groups on the base of priorities of development of the place being studied. Each focus group chooses whichever of the eight studied place product concepts that its participants deem the most desirable to achieve. Then over 40–45 minutes each group describes the target group of marketing and areas for future development of the place being studied (elements of the marketing mix), stating the steps needed to progress from the initial to the desired position of the place, and then prepares a report. All the participants over the course of 2–2.5 hours (with breaks) compare and criticize the focus group results in order to choose the final version of the strategic vision of the place in the future. An expert provides guidance over the group's work, helping participants use the classifiers correctly when describing target groups and developing the marketing mix. The expert should place special emphasis on motivating participants to use behavioural and not demographic criteria when describing target groups. Then he or she moderates the discussion; here, it is crucially important to encourage cooperation between groups when discussing elements of different developed visions.

Some of the focus groups formed at this stage may not possess the specific professional background needed to develop the marketing mix elements. At the same time, members of another group can have such skills. Therefore, the experts should motivate the different groups to share their experiences during the final discussion. *Output*: empirical matrices of product and use of the place being studied that define its desired (or target) position, vision (or vision versions) of the place in the future in terms of the product concept, behavioural characteristics of target groups.

The results show that strategic visions formulated in the third stage, in comparison with those obtained in the first one, were more rigorous and detailed, on one hand, and developed by local stakeholders and thus reflected the intrinsic nature of the place, on the other.

## Conclusions

M. Kavaratzis, summarizing the wishes of place marketing and branding practitioners on how to make theory more closely approximate practice, notes three decisions, one of which is to promote theory through workshops (Kavaratzis, 2015). The very format of the workshop implies training using the participants' own cases, and thus connects the processes of learning and decision-making. Previously, participatory research has been described as an appropriate way of studying the life-world and the meaningful actions of people with their own help (Bergold and Thomas, 2012); moreover, this type of research makes it possible "to build capacity among the research participants" (Krishnaswamy, 2004).

This paper develops these approaches, suggesting a methodology that would allow local stakeholders to develop a strategic vision of a place on their own under the guidance of an external expert, rather than outsourcing this crucial function. Theory and analytical tools for stating place vision were co-created by expert and practitioners. This entailed systematizing the everyday consciousness and experience of the participants and transforming them into scientific consciousness and experience, rather than replacing them with the professional experience of the expert.

The expert's responsibility in the strategic process is to provide the practitioners with strategic thinking skills and basic analytical tools and then assist them in the further development and application of these tools. The rigour of the strategic thinking is supported by strategic matrices built on the base of the full typologies and not case studies (Rozhkov and Skryabina, 2015; Rozhkov and Skryabina, 2015a).

A framework of in-class focus groups is the optimal way to resolve the contradictory issue of the distribution of roles between practitioners and experts during the process of strategic planning. Expansion of the participants' scope of thinking, which allows them to see and rationally describe the variety of places from management and marketing points of view, as well as to assess the current and

desired strategic position of their own place on the market can also be considered as valuable outputs of the present research.

The methodological approach that has been developed is a much-needed supplement to existing techniques used in place management. It allows local stakeholders to implement place identities into organic strategy and brand.

## References

1. AMA, American Marketing Association (2015), *Dictionary of marketing terms* ([www.marketingpower.com/\\_layouts/Dictionary.aspx](http://www.marketingpower.com/_layouts/Dictionary.aspx); accessed: 7.04.2015).
2. Bergold J., Thomas S. (2012), *Participatory research methods: A methodological approach in motion*. *Historical Social Research/Historische Sozialforschung*, p. 191–222 (<http://www.qualitative-research.net/index.php/fqs/article/view/1801/3334#ref/>; accessed: 6.03.2016).
3. Interview: *Place Branding Expert Malcolm Allan* (2015) (<http://placebrandobserver.com/place-branding-expert-malcolm-allan-interview/>; accessed: 6.03.2016).
4. Kavaratzis M. (2015), *Place branding scholars and practitioners: “strangers in the night”?* *Journal of Place Management and Development*, 8, 3: 266–270.
5. Krishnaswamy A. (2004), *Participatory Research: Strategies and Tools*, Practitioner: Newsletter of the National Network of Forest Practitioners, 22: 17–22.
6. Rozhkov K.L., Skriabina N.I. (2015), *Places, users, and place uses: a theoretical approach to place market analysis*, *Journal of Place Management and Development*, 8, 2: 103–122.
7. Rozhkov K.L., Skryabina N. (2015a), *How to capture the idea of a place? The case of five Moscow districts*, *Journal of Place Management and Development*, 8, 3: 206–232.
8. Thompson A.A., Strickland A.J. (1998), *Crafting and implementing strategy: text and readings*, Richard and Irwin.

# Chapter 13

## The Use of 3D Design in Marketing – Research and Educational Aspects

Peter Šimončíč, Roderik Virágh, Filip Tkáč

**Peter Šimončíč:** PhD student in the Department of Marketing and Trade, SUA in Nitra

**Roderik Virágh:** Assistant Professor in the Department of Informatics, SUA in Nitra

**Filip Tkáč:** PhD student in the Department of Informatics, SUA in Nitra

**Abstract:** With all the technologies constantly evolving, the basic concepts of marketing have to be adopted accordingly. We no longer live in a world, where production or product is important. We live in a world, where customer and his experience is the most valuable thing. It is well known that people are experiencing world mainly by using visual senses. Due to this premise continuous improvement of technology of visual presentation is necessary. There are many ways how to accomplish this task and one of them is concept of using 3D technology. These techniques are used by many industries as archaeology, engineering, and healthcare. New marketing concept of moving from 2D design into 3D can extend presentation possibilities significantly. Imagine you want to create a need for a product, which is not even produced, for example a new concept car or maybe a new house. Instead of getting through some pictures, plans, specifications etc. one can simply use a smart phone to not only see your product in real world, but to interact with it as well. On the other hand online stores are becoming more and more popular and 3D models are one of the ways how to present real goods to customers better than others. This technique can also save money in real stores – for instance customers don't need to try clothes, but they can see how it would fit them thanks to 3D design interconnected with augmented reality. All of this is possible and can be done using 3D designs which we would like to introduce in our article. Nowadays, some solutions for making 3D design are commercially available. The main disadvantage is their high price. The purpose of this paper was to define a way to create a usable 3D model for an affordable price and find obstacles of our solution, which can be used also by ordinary people. It is important to note, that our method is experimental and future exploration is necessary.

We used relatively low-cost Microsoft Kinect sensor as device for 3D scanning connected with personal computer thanks to specialized Software development kit. Please take this paper as a brief overview of possibilities using 3D scanners and 3D models in marketing campaigns and a founding stone for future research.

**Keywords:** 3D technology, scanning, models, marketing, products

**JEL classification:** M31, M37, M39, O31, O33

## Introduction

The 3D world became a part of our life considering the use in each business sector and 3D printers are essential among those technologies. As we now 3D printers need some pattern in computer format to make and show the simplification of reality, so they change the virtual world to real substantial models. On the other hand, we need a process to create those patterns. Nowadays, two significant ways of showing reality in a 3D virtual model are available – to draw a pattern in CAD software and transformation substantive objects. The second technique is important for us, as it has rapid development and brings new possibilities. The most common way to do this is 3D scanning, which is the main idea of this article.

According to Ebrahim (2011) the first 3D scanning technology, which used lights, cameras and projectors to perform its task, was created in the 1960s and due to limitations of the equipment it often took a lot of time and effort to scan objects accurately.

The evolution of technologies brought new possibility – contact probe. This invention enabled a precise model to be created. But it was too slow. Later experts started developing an optical technology. Using light was much faster than a physical probe. This also allowed scanning of soft objects which would be threatened by prodding in 1996 3D Scanners took the key technologies of a manually-operated arm and a stripe 3D scanner – and combined them in ModelMaker. This incredibly fast and flexible system is the world's first Reality Capture System. It produces complex models. And it textures those models with colour. (Hoffmann, 1988).

### 13.1. 3D scanner – technical aspects

A 3D scanner is a device that analyses a real-world object or environment to collect data on its shape and possibly its appearance (e.g. colour). The collected data can then be used to construct digital, 3D models useful for a wide variety of applications. These devices are used extensively by the entertainment industry in production of movies and video games. Other common applications of this technology include industrial design, orthotics and prosthetics, reverse engineer-

ing and prototyping, quality control/inspection and documentation of cultural artefacts. Many different technologies can be used to build these 3D scanning devices, each coming with its own limitations, advantages and costs. It should be remembered that many limitations on the kind of object that can be digitized are still present: e.g. optical technologies encounter many difficulties with shiny, mirroring or transparent objects. (Yu et al., 2011).

3D scanners work like a camera, but instead of collecting colour information about a surface, it collects distance information. Basically, each scan produces a picture where each pixel contains the distance to the surface; this picture is called a depth (or range) image. Usually to analyse properly a complex 3D object, multiple scans (i.e. range images) from different directions are necessary. These range images are then merged together to produce a cloud of points representing the surface. This operation is called registration or alignment and consists of bringing the range images, coming from different directions, within the same 3D coordinate system. (Dugelay et. al., 2007).

The evolution has brought many types of 3D scanners due to their techniques. According to Curless (2000) we can divide them into two main categories – contact and non-contact scanners.

As non-contact scanners are more relevant for our article, we would like to point out to the description of some these techniques according to popular portal about 3D Aniwaa.com 3 Laser triangulation 3D scanning technology, projects a laser beam on a surface and measures the deformation of the laser ray. Structured light 3D scanning technology measures the deformation of a light pattern on a surface to 3D scan the shape of the surface. Photogrammetry, also called 3D scan from photographs, reconstructs in 3D a subject from 2D captures with computer vision and computational geometry algorithms. Contact based 3D scanning technology relies on the sampling of several points on a surface, measured by the deformation of a probe. Laser pulse 3D scanning technology is based on the time of flight of a laser beam. The laser beam is projected on a surface and collected by a sensor. The time of travel of the laser between its emission and reception gives the surface's geometrical information.

The process of 3D surface-shape measurement using hand-held laser-camera range-sensors consists of acquiring 3D surface data points from different range-sensor head viewpoints while moving the range-sensor head. The collected data points from different viewpoints are then combined into a single global reference coordinate system in a registration process, based on the transformations between viewpoints. Typically, the transformations between range-sensor head viewpoints are known from: sensors within a mechanical positioning device that controls the motion of the range-sensor head; separate secondary tracking systems that employ mechanical arms. (Wagner et al., 2010).

A hand-held 3D scanner that does not require secondary tracking systems or surface markers has been developed using: simultaneous projection of multiple lines of light (instead of the one or two lines in most existing systems); acquisition of overlapping 3D range-images, where each range image contains multiple profiles acquired at a single viewpoint; and registration of these 3D range images

into a single reference frame to reconstruct the measured 3D surface (Kofman and Borribanbunpotkat, 2013).

Using 3D scanners can save cultural heritage, bring new ways of introducing goods for customers via e-shops or help game developers to faster create a video game.

Tsunamis, earthquakes, floods, wars, and hatred can have detrimental effect on art, artefacts, architecture, and culture. When these treasures are gone, they are gone forever. Preservation of art, history, and culture is important for many different individuals and organizations working with 3D laser scanning using noncontact scanner. For example, the Smithsonian is beginning to scan their collection. They provide the 3D models online and believe that offering their collection in this format makes it more accessible. Students anywhere can see it. Touching an artefact with our hands causes deterioration and damage, but in the computer individuals can rotate and examine the 3D collection without ever causing any damage and, with access to digital files, anyone who has a 3D printer can print the models (Mongeon, 2015).

3D scanners can also be used to catalogue and display anything, in full 3D. For example, if you owned a shoe store, you could scan all of the shoes in your store, and put them up on your website so that people could see them from all angles. If you are a sculptor or artist you can store your creations digitally, and showcase them to remote buyers around the world. Gaming is another great way to use 3D scanner – many games allow you to import 3D models into the game, allowing you to create your house, or yourself (if you have a handheld scanner) in the game. 3D scanning also saves game developers time by allowing them to scan in scenery, rather than building everything from scratch themselves. (Sitver, 2014).

3D scanners are becoming more popular due to the wide range of price availability according to the primary usage and accuracy. In text table, we would like to compare price and accuracy of few 3D scanners. Prices are taken from Amazon.com shop and accuracy from official product specifications (Table 1).

Technology of 3D scanning is becoming part of more and more business areas. It found usability in heritage recording for making models of historical artefacts (Remondino, 2011), quality control, GIS models, entertainment (Ebrahim,

Table 1. Prices of 3D scanner at Amazon.com.

Scanner	Accuracy (mm)	Price (USD – 07.03.2016)
Cubify Sense	1	378.49
Matter and Form	0.43	509
Artec Eva	0.1	14500
Artec Spider	0.05	20000
XYZprinting Handheld 3D Scanner	1.5	189.99
Microsoft XBOX 360 Kinect Sensor	0.051	109.95

Source: Amazon.com.

2011), reverse modelling (Jiang et al., 2016) and in healthcare especially orthodontics (Taneva et al., 2015).

## 13.2. The use of 3D designs in marketing – methodology

Since marketing field is all about customer and his/hers experience, it can greatly benefit from the use of 3D designs (not to be mistaken for 3D marketing, which means Discover, Design, Deliver (Edelman et al., 2014)). If we build on a premise that most people are experiencing world mainly by using visual senses, we see a tendency that companies are always trying to improve their visual presentation. Today, we can see many professionals focusing on delivering appealing visual content and often feel there is no room for improvement. The next logical step is to move from 2D designs into a 3D. The shift away from traditional illustration and photography has been a gradual one, but as more companies become clued-in to the power of 3D illustration, modelling, and visualization, they're finding it gives a huge boost to the impact of their product marketing efforts (Malkosh, 2014). When companies present their presentation in an appealing 3D models rather than 2D visuals, it gives them better understanding of the product, better idea of scale of the product while it gets more interesting and exciting for them. Many regular companies, not only pitching pioneers, are realizing this trend and are beginning to incorporate the idea of 3D modelling in their marketing preferences. Together with other technologies like virtual and augmented reality, this approach can drastically reduce costs by cutting of the need to present real products and replace them with 3D models.

The benefits 3D models usage not only in marketing but in other fields as well are undoubtedly many, therefore we decided to create a small overview of what it takes to create a 3D model for ordinary people (not a professional designer). For the purpose of this paper we tried to create a usable 3D model for affordable price and would like to present you with the obstacles it represented for us. Please keep in mind, that this field is still more experimental than widely used, therefore some solutions are still missing, are not officially supported or are in testing release. We used Microsoft xBox 360 Kinect Sensor for our research, as it gives us most bang for the buck. The xBox Kinect was not intended originally for a 3D scan (nor an eventual 3D print), however using a 3rd party software and a quick how to guide the Kinect can be 'hijacked' into a 3D scanner. In fact the Kinect has a large subculture of 'hijackings' that are worth exploring! One notable company that widely uses the Kinect for their 3D scans is the SNCF (The French National Railway Company) (Cabanis, 2015). As mentioned above, we needed a specialized SDK<sup>18</sup> (Software development kit) from official Microsoft website, to get it running on PC. Here we would like to stress out that it really needed to be installed before plugging in the Kinect sensor. Once done, we had to find a software

<sup>18</sup> See: <https://dev.windows.com/en-us/kinect>

which is able to capture data stream from our sensor and process it into 3D model. We found four programs which we know are able to work with Kinect sensor namely Skanect<sup>19</sup>, Reconstruct Me<sup>20</sup>, Kscan3D<sup>21</sup> and 3D Builder<sup>22</sup>. We weren't able to test 3D Builder, because it's only for Windows 10. Reconstruct Me didn't work for us on multiple computers, because of hardware requirements, on other PC it didn't recognize our Kinect sensor. We manage to run Kscan3D however didn't like the method how 3D models are created (making multiple photos into a 3D model instead of capturing continuous stream) and it also didn't work for our test object. Kscan3D creates a model from a series of photos made by Kinect sensor, which then the software tries to align accordingly, what we found out to be a challenge as seen on Figure 1.

For the reasons described above we used Skanect software, which we found out to be most user friendly, with good installation description and it worked out of the box. Skanect offers a free and pro version for 119€. The difference between these two is mainly in possibility to export full resolution models, while free

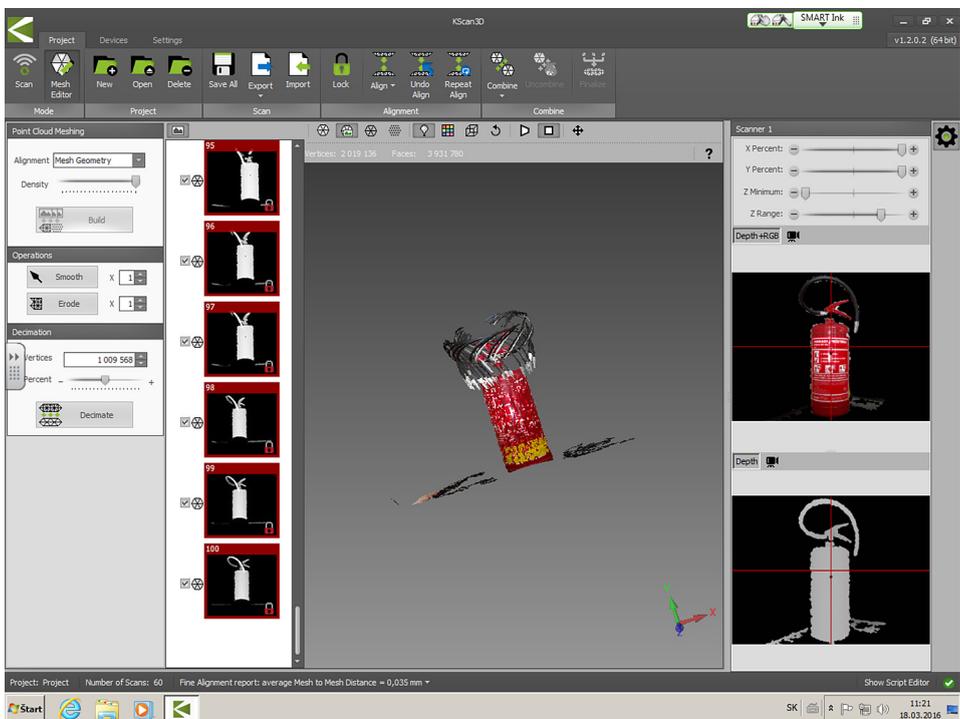


Figure 1. User interface of Kscan3D with a wrongly aligned model.  
Source: Own research.

<sup>19</sup> See: <http://skanect.occipital.com/>

<sup>20</sup> See: <http://reconstructme.net/>

<sup>21</sup> See: <http://www.kscan3d.com/>

<sup>22</sup> See: <https://www.microsoft.com/en-us/store/apps/3d-builder/9wzdnrcfj3t6>

version allow export with only 5000 polygons and therefore good only for very simple models (our object contained over 200 000 polygons).

The process of scanning is very simple. After installation of Kinect sensor and all need support drivers, just turn on Skanect software, start new project and hit record button. Because of small resolution of Kinect camera (640 × 480 pixels) we advise to stay close to your object. It is possible to move the scanner around the object, however because Kinect sensor is wired, the manipulation was bit unpractical. Luckily Skanect also works together with a rotating pad (some software need background in order to determine position of scanner), where you can place your object and slowly rotate it. On Figure 2 below we can see what path the scanner made relatively to our object. In this case scanner was stationary and the object turned around. The little white box in front of our test person is Kinect

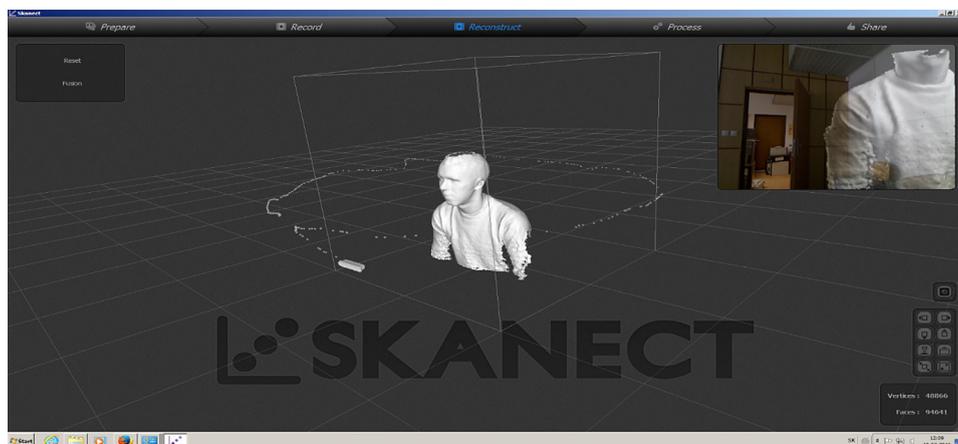


Figure 2. Movement of scanner using Skanect software.  
Source: Own research.

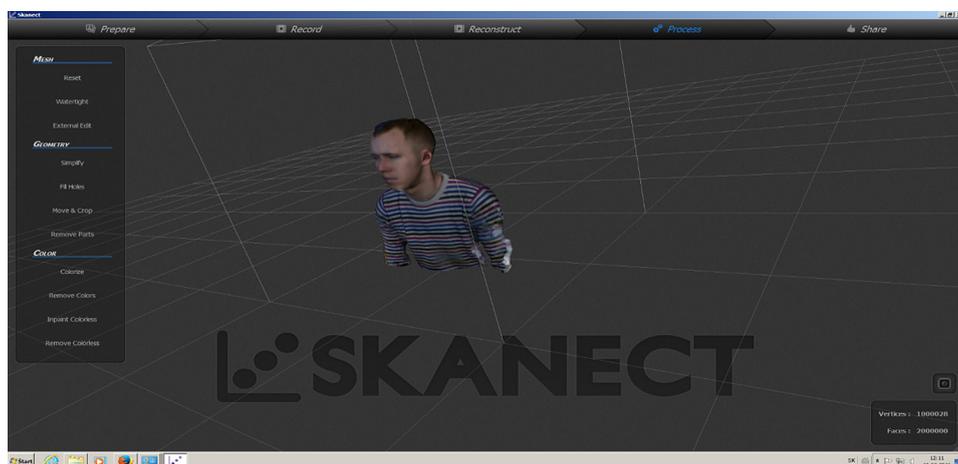


Figure 3. Finished model ready to export.  
Source: Own research.

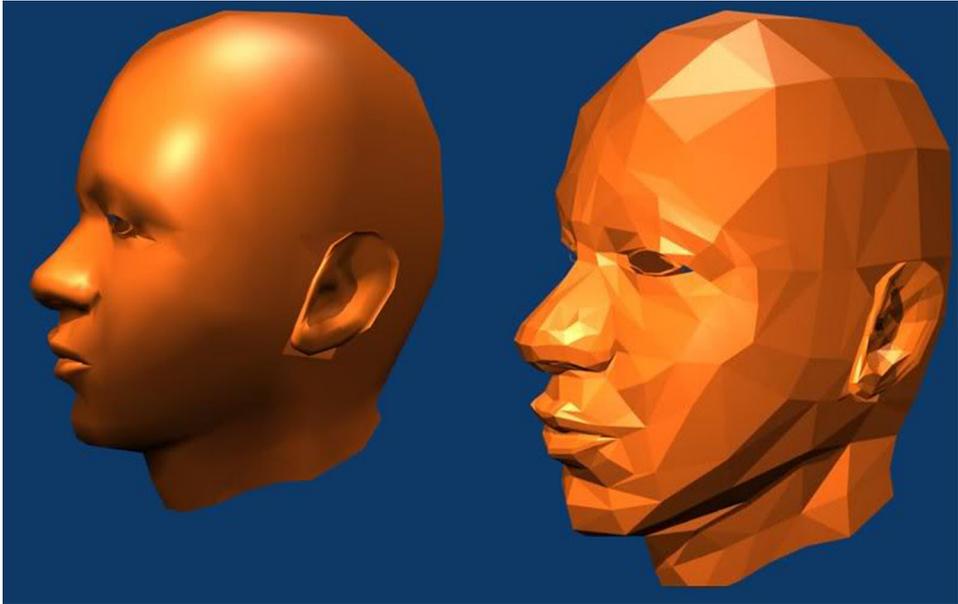


Figure 4. Difference in polygon count of 3D models.

Source: [http://s280.photobucket.com/user/scott\\_and\\_esther/media/HeadLeftSetSolid.jpg.html](http://s280.photobucket.com/user/scott_and_esther/media/HeadLeftSetSolid.jpg.html).

sensor and the circle around it is path which it made. We found out that for living object it is more viable to move the scanner, because object can move and thus create distortions either by light or simply by different pose.

Important thing is to cover all parts, as we can see on Figure 2 above, we didn't cover top of the head, what created hole in our model. Skanect software can handle some kinds of these mistakes, by its filling functions, which calculates how the object could approximately be.

The next step was to make the model complete, fill any holes made by scanning and colourize our object. On above Figure 3 we can see how our model looked in its final stages before exporting into a 3D modelling software. Worth noting is, that the process of creating a 3D model using 3D scanner took us less than 10 minutes.

Because we used only free version of Skanect, the exported object did not look anything like 3D model in Skanect and we weren't able to work further with it. The difference in polygon count is demonstrated on picture 4 above, just to show how much it affects 3D models.

## Conclusions

To conclude our work and paper, we would again like to stress out the benefits which 3D design brings to marketing. There is undeniable improvement in tech-

nologies, which focuses on presentation of 3D objects. Whether it is Oculus VR with their Oculus Rift virtual reality, Google with their Cardboard, Zappar with their augmented reality studio and many other, they all use 3D models and while they are still figuring out the best way how to utilize them, on other hand there is a huge crowd of people eagerly waiting what will the future bring to them. In past decades we saw sci-fi movies where people could speak to holograms, manipulate virtually created objects on their table and many other things, but in few decades we could be able to see them in our day to day lives. Companies like Apple, BMW, Volkswagen and other are beginning to use virtual and augmented reality in their campaigns even today. This with ever-showing fact that traditional media are on decline can mean a new stage of marketing, so called experience marketing. People don't want to see simple mindless adverts of products. They want to have fun with them. And companies need to realize that it's not the adverts they don't like, it's the way how they are delivered. In our paper we presented you first step how to bring your marketing back to life with creating a 3D models which are essential for this new trends.

## References

1. *3dsystems.com: Sense 3D Scanner* (<http://3dsystems.com>; accessed: 1.03.2016).
2. *Amazon.com: Online Shopping for Electronics, Apparel, Computers, Books, DVDs & more* (<http://www.amazon.com>; accessed: 1.03.2016).
3. Aniwaa (2016), *Aniwaa.com* (<http://www.aniwaa.com/3d-scanning-technologies-and-the-3d-scanning-process/>; accessed: 1.03.2016).
4. Cabanis R. (2015), *Guide to 3D Scanners*, Sculpteo (<http://www.sculpteo.com/blog/2015/03/03/guide-3d-scanners/>; accessed: 14.03.2016).
5. Dugelay J.-L., Baskurt A., Daoudi M. (2008), *3D Object Processing: Compression, Indexing and Watermarking*, John Wiley & Sons.
6. Ebrahim, Mostafa A.- B. (2011), *3D laser scanners: history, applications and future*, Assiut University.
7. Edelman D., Hieronimus F. (2014), *Discover, Design, Deliver: 3D marketing & sales for above-market growth*, McKinsey & Company (<http://www.mckinseyonmarketingandsales.com/discover-design-deliver-3D-marketing-for-above-market-growth>; accessed: 14.03.2016).
8. Faxin Yu, Zheming Lu, Hao Luo, Pinghui Wang (2011), *Three-Dimensional Model Analysis nad Processing*, Springer Science & Business Media.
9. Jiang, Quan et al. (2016), *Reverse modelling of natural rock joints unit using 3D scanning and 3D printing*, Computers and Geotechnics, p. 73.
10. Kofman J., Borribanbunpotkat K. (2013), *Hand-held 3D scanner without sensor pose tracking or surface markers*, International Conference on Advanced Research in Virtual and Rapid Prototyping.
11. Malkosh Y. (2014), *3D modeling is a game changer for the product design and marketing*, Dean Meyers Inc. (<http://www.vizworld.com/2014/07/3d-modeling-is-a-game-changer-for-the-product-design-and-marketing-realm/#sthash.5hw1O4gr.dpbs>; accessed: 14.03.2016).

12. matterandform.com: Matter and Form 3D Scanner (<https://matterandform.net/scanner/>; accessed: 1.03.2016).
13. Mongeon B. (2015), 3D Technology in Fine Art and Craft: Exploring 3D printing, Scanning, Sculpting and Milling, CRC Press.
14. Professional 3D scanning solutions artec3d.com (<https://www.artec3d.com/files/pdf/ArtecScanners-Booklet-EURO.pdf>; accessed: 1.03.2016).
15. Remondino F. (2011), Heritage Recording and 3D Modelling with Photogrammetry and 3D Scanning, Remote Sensing, p. 3.
16. Sitver M. (2014), 3D Printing In Under 1000 Words, Silver Publishing, p. 15.
17. Taneva E., Kusnoto B., Evans C.A. (2015), 3D Scanning, Imaging and Printing in Orthodontics. Issues in Contemporary Orthodontics, Chicago.
18. Wagner B., Gärtner H., Ingensand H., Santini S. (2010), Incorporating 2D tree-ring data in 3D laser scans of coarse-root systems, *Plant Soil*, 334: 175–187.

Publikacja bezpłatna

Publikacja finansowana ze środków funduszy norweskich oraz środków krajowych.