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Virtualisation of consumer behaviours of Polish seniors

INTRODUCTION

The expansion of the Internet has undoubtedly contributed to a fast development of a megatrend known as information technology civilisation or cyberconsumerism (with reference to online consumption). The use of the Internet by consumers (*homo informaticus*, or e-consumer also called consumer of the new era) has led to improvements in the consumption process and facilitated their access to unlimited sources of information, consumer goods and services. Information and communication technologies make it easier and faster for e-consumers to access rich sources of information about products and services offered on the web. Consequently, consumer choice increases, expanding opportunities for online shopping. In this way, consumption styles may be personalised as consumers of the new era are increasingly willing to shop online with home delivery of the goods so purchased. It should also be noted that online shoppers have easier access to product innovations and can themselves generate such innovations by posting their opinions about specific offers. Furthermore, by publishing photos on social networks, they often create new consumption styles and patterns. The Internet also makes it possible to find information in the following forms: magazine websites, corporate websites, research companies' reports, information about activities of various institutions, listed companies' prospectuses which combine images, text and sound, thus providing modern consumers with detailed information about characteristics of products or services.

Also the elderly follow the trends outlined above. However, due to the rapid development of ICT (Information and Communication Technology), more and more senior computer users are lagging behind the technological development,

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using mainly obsolete applications. First and foremost, this is problematic for those who are today 60 and 70 years old as they do not use ICT at all or use it to a very limited extent and still have 10–20 years to live in the rapidly changing reality. Beyond question, the digital divide means no access to information about the full market offer, including both products that are unavailable or difficult to find on the market and products sold at lower prices thanks to non-traditional distribution channels (e.g. online shops) or e-banking with banking transactions made at home and usually free of charge.

Today, the elderly are not only important actors in consumption but also significant research entities. In the sphere of consumption, an increasing proportion of older people and their economic emancipation have an essential impact on both level and structure of consumption. Because security systems for old age such as complex pension schemes are developing and children are becoming self-dependent earlier, older people have not only much free time but also more and more money that they largely spend on current consumption. Another important factor determining changes in the structure of this group is a change in their lifestyles. Dynamic development of medicine and lifestyle rationalisation lead to older people trying to delay the passage of time and “cheat the nature” by striving to imitate some behaviours (e.g. clothes worn, the way of spending free time, etc.) of the younger generations [Zalega, 2013a, p. 18–19]. This directly translates to their purchasing behaviours within the consumer decision-making process and provides a basis for the development of a megatrend known as “rejuvenating population” in the literature. The existing stereotype of older persons as lonely and poor is slowly starting to be replaced by the image of active people and consumers interested in active life whose approach to life is more hedonistic and who try to meet their needs and those of their immediate family members. Therefore, the elderly are increasingly regarded as an important segment of the market.

These issues led the author of this text to attempt to discuss the virtualisation of consumption among Polish seniors. It should be borne in mind that the consumer trend mentioned above is one of the so-called alternative trends (along with social media and multitasking) making up the information technology civilisation megatrend.

The aim of this article is to provide an insight into how consumption virtualisation affects consumer behaviours of Polish seniors. The structure of the article is as follows. After a brief introduction, the first section explains consumer behaviours and the essence of consumption virtualisation as an alternative consumer trend and discusses the availability of the Internet among the elderly. In the second part hereof, the research methodology and the research sample selection are outlined, and then the concentration is on the use of the Internet by seniors and the implementation of virtualisation processes in consumer behaviours of this age group. Finally, major conclusions end this study.

CONSUMER BEHAVIOURS – THEORETICAL ASPECT

The notion of “consumer behaviours” comes from Anglo-American and is derived from terms such as *consum behaviour* and *consumer behaviour*. One of the first to use the notion of “consumer behaviour” was American economist W.H. Reynolds [Cox, Kollat, Blackwell, 1968]. Consumer behaviour may be broadly defined as a range of actions and activities intended to meet consumption needs of individuals or consumer groups. This is achieved by acquiring goods and services and correlated with the preferences system and with the way of dealing with purchased goods [Zalega, 2012, p. 27]. Consumer behaviour usually means any response (or the aggregate of responses) by an organism to environmental stimuli and its attitude to the environment. This concept has not been precisely defined in the relevant literature as yet, hence it is understood in a variety of ways. Undoubtedly, consumer behaviours provide information on the needs, preferences and determinants of behaviours and attitudes towards brands, offers and businesses. What should also be remembered is that consumption and consumer decisions are closely linked to consumer behaviours. Consumption decisions are identified based on the object of decision-making and include all decisions that are taken in the sphere of consumption by consumers themselves as well as decisions made not by consumers but relating to the broadly understood sphere of consumption. On the other hand, consumer decisions are identified by the subject making the choice and refer to any decision made by consumers and consumer groups.

Consumer behaviours are determined by a set of many various factors operating with different intensities and in different directions. Taking into account the completeness and consequences of determinants, they are divided into objective and subjective factors. Objective variables include non-economic factors (internal: demographic, social determinants, and external: civilisational and cultural, geographical and environmental factors, organisation of social life) and economic determinants comprising endogenous factors (level and sources of income, savings, durables possessed by households, level and structure of consumption) and exogenous factors (supply of goods, price level and price relations, institutional information system, sales policy). It should be highlighted that in the period from the influence of objective variables to the time when a consumer decision is made, subjective and marketing determinants start operating and somehow alter consumer responses to objective variables. For these reasons, consumer behaviour determinants should be considered comprehensively.

Given their dynamic expansion, new information and communication technologies are increasingly present in everyday life of consumers (including seniors) and directly affect their consumer behaviours. Technological progress leads to the emergence of new solutions in various areas of human activity, ranging from education and work to the way of spending free time and shopping. Obviously, in the 21st century, economic and social processes make social development more and

more dependent on information and knowledge gained from information, which – together with demographic changes in many European countries, including Poland – is cause for thought regarding how older persons find their feet in the world of contemporary consumer trends including virtualisation of consumption.

CONSUMPTION VIRTUALISATION AS A DETERMINANT OF CONSUMER BEHAVIOURS

In today's world, significant changes in consumption can be spotted. These are changes in consumer products and the ways of satisfying needs. The 21st century is undoubtedly a transition period between modernity and postmodernity. That postmodernity is characterised by diversity and pluralism of styles. Postmodern conditions of consumption include: fragmentation, hyperreality of the media and simulation, value realisation later in the consumption cycle, and paradoxical juxtapositions of opposites [van Raaij, 2001, p. 331–342; Antonides and van Raaij, 1998, p. 61–62]. These trends are increasingly reflected in purchasing behaviours of modern consumers². Hyperreality may be exemplified by virtual reality into which consumption virtualisation fits relatively well.

Virtualisation of consumption is an alternative consumer trend that has been gaining momentum in the past few years and is associated with the development of a network society and technological changes (chiefly information and telecommunications technologies, with the Internet having the greatest influence on consumer purchasing behaviours)³. Virtualisation means that electronic media such

² Fragmentation means that consumers, depending on which products they are currently using, become creative managers or ingenious housekeepers. Fragmentation is also segment production, or mass individualisation. Hyperreality, in turn, is exemplified by: 1) virtual reality (social computer games, forums, thematic websites); 2) cyberspace (flight simulators, PS3 live fighting games, 3D films in cinemas), and 3) expansion of the so-called escapist films and periodicals. Value realisation later in the consumption cycle involves deconcentration of the subject, that is confusion of subject and object. Products seem to increasingly determine the conditions and ways of consumption. Consumers need to follow product instructions to reap benefits and avoid trouble. The confusion of subject and object also concerns “self-packaging” and “self-marketing” of individuals. Since consumers perceive their bodies and selves as objects and marketable items, more and more people may be “consumed” by others just as products available on the market (e.g. film stars, celebrities). Another trend in postmodern conditions of consumption is the paradoxical juxtaposition of opposites. It involves accepting unprecedented, paradoxical combinations of opposites that create new alternative genres.

³ Consumption virtualisation and sonification have caused a new trend called multitasking to emerge. It involves the ability to perform many tasks and actions simultaneously. This trend can be noticed practically in everyday life of consumers – when they listen to music while reading newspapers or when they surf online while using instant messengers. Most new mobile devices, e.g. tablets, enable simultaneous use of multiple applications. Almost every new device such as a mobile phone or an e-reader, in addition to its basic functions, allows viewing text, graphics and playing sound files at the same time.

as television, radio and the Internet are playing a growing role in meeting human needs. It helps organise everyday life and contributes to creating cocoon consumption through reducing constraints on mobility of consumers and information and enabling direct access to products and services [Zalega, 2013b, p. 133]. Virtualisation may be said to be the process whereby, by means of ICT, real beings are converted into abstract, amorphous things that exist and operate in virtual space [Małachowski, 2005, p. 17]. Social reasons for virtualisation undoubtedly include:

- consumers' propensity for gamification – more and more consumers search for offers with integrated funware allowing them to compete for a prize or move to a higher level;
- digitisation of everyday life – permanently logged on to the Internet, consumers constantly check its contents for fear of missing important information, the so-called FOMO effect (fear of missing out);
- the need to enter virtual interactions that are manifested as generating and commenting on the Internet contents.

These media have revolutionised consumer behaviours of most people, including seniors, changing their aspirations mainly towards goods that meet higher-ranked needs, that is educational, cultural and general entertainment needs. Broadly speaking, virtualisation is reflected in the enormous freedom of users when choosing the contents consumed. Along with the popularisation of the Internet, a new kind of human communication with the world appeared that is known as self-communication in the relevant literature. Blogs, microblogs and social networks have become a natural part of everyday life of a huge number of people worldwide and have themselves evolved into objects of not only consumption but also prosumption. Experience sharing among consumers on forums or within discussion groups provokes changes and contributes to dissemination of purchasing habits and crowding out of products that have not lived up to consumer expectations [Aldridge, 2006]. The Internet and virtualisation transform the whole consumer decision-making process, from the stimulation of a need to transaction and after-sales behaviours. Purchasing behaviours in virtual reality are mainly those of young people, which does not mean that they are not exhibited by seniors who simply display them much less intensely.

Technological innovations, including the development of new communication media, are constantly making virtualisation of consumer behaviours more dynamic. Consumption virtualisation is gaining momentum with the spread of smartphones, tablets and software for satisfying various needs. An example of the trend resulting from consumption virtualisation is point and know/point and buy, whereby knowledge about the surrounding world is gained through the screens of mobile devices. The use of NFC (Near Field Communication) technology for wireless communication between devices in close proximity (e.g. mobile payments by payment cards in mobile phones) and QR (Quick Response) codes which

provide information about the product, its price and properties but also allow for watching a video about its production process, include the manufacturer's hidden logo and connect users to social networks are also becoming more and more common [Zalega, 2016, p. 213–214]. As a result, changes can be spotted in the level and structure of consumption, for example in cultural participation of consumers. Consumption virtualisation may be said to manifest itself in the way of consuming the most popular cultural and entertainment goods and focus on the needs of individuals. Its characteristic is also the possibility of transferring needs from the public to the private sphere. A new film, theatre performance, concert can be watched at home where also simple purchases can be made. All these needs may be satisfied by using relevant Internet resources [Zalega, 2012, p. 131; Latusek, Zalega, 2012, p. 161].

Due to virtualisation of consumer behaviours, time and space is shrinking in interpersonal communication through the use of the Internet and mobile phones. New technologies have changed the human perception of time and transformed the possibilities of and constraints on mobility of people and information. Technological and organisational changes ensuing from the dynamic popularisation of the Internet have caused a distinction to be more and more frequently made between virtual and instantaneous time. The main characteristic of instantaneous time is the elimination of the division between days and nights, weekdays and weekends, home and workplace and leisure and work [Urry, 2009, p. 179–180]. Consequently, computerisation of the society and dynamic development of the Internet have become major stimuli that change consumer behaviours, affecting: accepted forms of communication in life and business, definition of distance in time and space, emergence of new digital products and increased availability of consumption of goods and services. Thus, these factors have somewhat altered the aspirations of Polish consumers.

Concluding the above discussion on consumption virtualisation, it may be said to allow many people, including seniors, to meet various needs:

- establish and maintain social contacts remotely;
- create an alternate reality;
- meet cultural (e.g. watch films or concerts, listen to music) and educational (e.g. learn foreign languages, read magazines and newspapers online) needs;
- find information about the world quickly;
- shop online for products and services;
- virtualise culture, i.e. replace the culture of sign by the culture of image.

Virtualisation, i.e. dematerialisation, of goods, has been observed practically since the second half of the 1990s, when the Internet started to be more and more widespread, ranging from software available online only, through music, films, newspapers and books. Comparing all these markets – and, of course, speaking about digital products, i.e. digitised contents, not distribution channels – sales of games (42%) and music (32%) can be said to dominate in Poland. In

contrast, sales of newspapers and magazines (5%) and e-books (4%) together account for only 9% of revenues from sales of digitised contents [Latusek, Załęga, 2012, p. 161–162].

AVAILABILITY OF THE INTERNET AMONG POLISH CONSUMERS

The Internet has a significant impact on purchasing behaviours of today's consumers, forces them to search for information actively, allows information flow between people living in different parts of the world and free exchange of views and opinions, while reaching users all over the world, including the elderly. Therefore, the Internet has the following characteristics [Bajdak, 2003, p. 14]:

- it enables two-way or even multi-directional real-time communication,
- it is a relatively inexpensive communications channel,
- it has global coverage,
- it allows for adjusting the contents to individual recipients' expectations and monitoring their reactions,
- it makes it easier for consumers to obtain and select information and communicate with other market participants.

The Internet offers comprehensive and personalised access to relevant sources of information, access to information around the globe and possibilities of interactive learning. Beyond question, it has great potential for people actively looking for better and faster information [McQuail, 2008, p. 519].

Year by year, more and more Polish households possess both a computer and Internet access. According to the *Social Diagnosis 2015* report, 72% and 71% of households had computers and Internet access, respectively, in the first half of 2015. It is very rare for households to have computers but no access to the Internet. The number of computers in households is also increasing – over 2/5 of all households have more than one computer. Laptops are becoming definitely more popular than desktop computers. In 2015, 59% of households possessed laptops, while 40% had desktops. In mid-2015, almost 54% of households connected to the Internet via a permanent connection. More and more households are using connections offered by mobile operators (14%), while the share of fixed-line operators as Internet service providers is decreasing. Only 4% of households access the web via smartphones or tablet SIM cards exclusively [*Diagnoza Społeczna*, 2015, p. 355–356].

On the other hand, according to the Polish Central Statistical Office (GUS), in 2014 almost 10 million households (77%) had computers, of which 74.8% had access to the Internet and 71% used broadband connections. Having a computer and Internet access was most frequently declared by households in large cities and highly urbanised areas. Taking into account the territorial division, in 2014 the percentage of households possessing computers was the highest in: Pomera-

nian (85.4%), Mazovian (80.8%) and Greater Poland (79.7%) Voivodeships and the lowest in: West Pomeranian (71.9%), Łódź (71.3%) and Lubusz (70.1%) Voivodeships. Seniors mostly used computers and the Internet at home (74%), and the main purpose mentioned was to send and receive e-mail and search for information about products and services. Using the Internet to sell products or services was the least popular purpose. In order to connect to the Internet outside home, the elderly most often used mobile phones, smartphones or laptops [*Diagnoza Społeczna*, 2015, p. 2–3 and 13–14].

By far the least active users of new technologies are persons aged 65 and more. Only 18.6% of older people own desktops. In this age group, merely 17.9% of people use the Internet. Although almost 66% of them have a mobile phone, it is very rarely a touchscreen phone (6.9%) with Internet access (1.2%). It should be noted that as many as 3/4 of seniors spend minimum 2 hours per day watching TV, and more than 2/3 of them use press readers [*Społeczeństwo Informacyjne*, 2015, p. 365].

CONCEPTUALISATION OF RESEARCH

The empirical material contained in this article comes from direct research conducted in the form of a survey questionnaire on a sample of 2537 households in 2014–2015 in ten Polish cities of various populations and sizes. In accordance with the research assumptions, the sample included persons over 65 years of age who took independent purchasing decisions on the market. In order to select the sample, the selective quota sampling procedure was used. The characteristics (quotas) covered by the research were: sex and age.

The characteristics and properties of the group investigated were complemented by means of explanatory research that was treated by the author as a supplement to the information obtained in the questionnaire-based interview. To that end, in the first half of February 2015, personalised in-depth interviews were carried out with 11 people selected in a targeted manner, taking into account the key socio-demographic characteristics such as: sex, age, education and place of residence. Those were interviews with inhabitants of Warsaw, Katowice and Toruń. An interview lasted approximately 45 minutes. Later, the in-depth interviews were transcribed and analysed in line with the qualitative research methodology.

This research method was chosen in view of the older age of respondents whose openness to new media (Internet, smartphone, i-Pod) often used in research is limited. The primary objective was to outline the structure of consumption and consumer behaviours of older people. The research focused on their purchasing preferences and attitudes towards various consumer goods and services. Their social situation was also examined, as were their self-assessed health and phy-

sical and mental fitness. One of the research objectives was to seek the views of respondents on new consumer trends (including consumption virtualisation) also followed by the elderly and to gather information on the impact of marketing tools on their behaviour. An important research task was also to assess their financial situation, structure of monthly budgetary spending and consumer decision-making process. This allowed for creating a psychological profile of today's older consumers in Poland.

The surveys were conducted among participants of the University of the Third Age at state universities in: Warsaw, Kraków, Łódź, Poznań, Gdańsk, Katowice, Lublin, Białystok, Toruń and Wrocław, as well as among members of parochial clubs in parishes located in the Archdioceses of Warsaw, Kraków, Łódź, Białystok, Gdańsk, Katowice, Lublin, Poznań, Wrocław and the Dioceses of Warsaw-Praga and Toruń.

The material collected during direct research was arranged, i.e. grouped, counted and pre-assessed for completeness of the information. The verification and evaluation of the material allowed for eliminating filling errors, inaccuracies, logical and systematic errors. From among 2594 initial questionnaires, 2537 were considered eligible, representing 97.8% of the total sample. Further, they were coded, and the data set thus created was processed by a statistical package. The application of SPSS 14.0 PL statistical package made it possible to analyse the information obtained from the standardised interviews. Then, after the data collected were grouped, counted and initially described, they were analysed qualitatively and quantitatively. To do this, correlation coefficients, mainly Pearson's, Spearman's rank, Cramer's *V* association coefficients, were used. It should be stressed that contingency tables were the key statistical analysis method.

SELECTION AND CHARACTERISTICS OF THE RESEARCH SAMPLE

Studying consumer behaviours is an extremely complex process. This is due to the complexity of consumption and consumer purchasing behaviours in the field of consumer decision-making. Such research encompasses an important step to explain the phenomenon examined, namely adoption of specific indicators. This is essential because an indicator is used to define a certain characteristic of an object or phenomenon which is in such a relation with another characteristic that indicates the occurrence of the latter when it occurs itself. An indicator is a measurable, i.e. empirically available, variable [Sztumski, 1999, p. 51]. When consumer behaviours are investigated, indicators explaining the complexity of this phenomenon include demographic (sex, age, place of residence, household size) and socio-economic indicators (education, income).

The survey covered 71% of women, with only every third respondent being male. There were definitely more women than men and people aged 65–74 formed

the largest age group in the sample⁴. The place of residence was also an important variable in the research. In line with the research assumptions, the sample comprised respondents who lived in the largest Polish cities.

Respondents were also asked about their level of education. The questionnaire included four categories of education: primary, basic vocational, secondary and higher education. Respondents with secondary education formed the largest group. Nearly 2/5 of those surveyed declared this level. Every fourth respondent was a university graduate, and those with basic vocational education represented a similar percentage. In the sample surveyed, people with primary education were the smallest group (11.4%).

Nearly half of those surveyed were members of households consisting of two persons, while fewer than 2/5 represented three-person households. Every sixth respondent was a member of a single-person household.

The largest group of respondents included people whose monthly income per capita did not exceed PLN 2000.00. For every third respondent, monthly income per household member ranged from PLN 2001.00 to 3000.00. In turn, every fourth person interviewed had monthly disposable income per capita of between PLN 3001.00 and 4000.00. The smallest group of respondents included households where income was above PLN 4000.00 per capita a month.

SENIORS AS INTERNET USERS

The direct research suggests that 25.6% of people aged 65–74 and fewer than 10% of respondents over 75 use the Internet. Seniors, like other groups, use it mainly at home (74.3%) and at their friends' and families' homes (19.7%). Only 6% of those surveyed used the Internet at Internet cafés.

The proportion of older people who have never used the Internet is also considerable: as many as 87.6% of those aged 85 and more, 71.2% of respondents aged 75–84 and 57.8% of those aged 65–74. The above data clearly confirm that older people are the least involved in the use of the Internet among all age groups. The situation seems to be particularly alarming nowadays, when the population is clearly ageing, the upper age limit of professional activity is increasing, and the need to create skilled workforce is continuously growing.

⁴ The Anglo-Saxon literature uses the following division of older people: 1) young old – people aged 60/65–74; 2) old old – people aged 75–84; and 3) the oldest old – people aged 85 and more. The age classification in the study is similar to that proposed by the WHO. The author divided seniors into: 1) young old – people aged 65–74; 2) old old – people aged 75–84; and 3) the oldest old – people aged 85 and more. According to the UN, the conventional old-age threshold is 65. It should be remembered, however, that old age is not just the number of years that a person has lived. We distinguish calendar (chronological) age and biological age. Many factors often cause very large discrepancies between chronological and biological ages.

The causes of the digital divide should be sought in the specific development in old age and motives, beliefs and competencies of older people. Changes in the functioning of the sensory organs and cognitive abilities are the primary reasons why the elderly fear to use the Internet and doubt their self-efficacy in this respect [Batorski, Zając, 2010]. Limitations resulting from their psychophysical condition seem to be crucial in explaining why this age group uses the Internet on a small scale [Szmigielska, Bąk, 2012, p. 142]. Acquiring new skills, including learning to use modern technologies, is much more difficult for the elderly due to weakened processes of perception, concentration, memory and learning. In addition, colours difficult to distinguish and too small letters hinder the perception of text and discourage this type of activity. What is also noteworthy is the fact that older people tend to oppose any changes and are less able to adapt to the environment, which entails numerous difficulties in accommodating to social, civilisational and cultural changes [Studen, 2011; Treder, Biechowska, 2011]. All this may lead to decreasing self-reliance and increasing dependence on others, the feeling of being useless, and gradual withdrawal from life and social activity.

The research conducted shows that over 74% of respondents who do not use the Internet do not see the point whatsoever of using it and cannot explain how they could use it to meet their needs or solve problems. Every fifth senior respondent assumes that the Internet is primarily designed for young, well-educated people who frequently travel and speak foreign languages. It should also be mentioned that their reluctance and negative attitude towards using the Internet stem from beliefs about the risks associated with its use. As many as 2/3 of the seniors interviewed think that such risks include: theft of personal data, possibility of impersonating others and ability to easily distribute pornographic, racist, etc., contents. In turn, every fifth respondent declares that they are reluctant to use the Internet because they fear possible addiction to it and a loss of contact with reality.

Another group of older people having a negative attitude towards using computers and the Internet are those who emphasise that it is too complicated and they are not interested in acquiring such skills. That answer was chosen by every third respondent. The direct research carried out also demonstrates that as many as 2/5 of those questioned see their lower self-efficacy in this field, are slightly embarrassed in front of the younger generation and concerned that they will show their lack of knowledge or skills. All this proves that the psychophysical condition and withdrawal from different forms of activity by older people significantly contribute to the digital exclusion of this group.

The research shows that more than 1/3 of respondents are interested in embracing new technologies. They learn how to use them at various computer courses organised by Universities of the Third Age, cultural centres and parishes. Support and assistance they receive from relatives and institutions and positive self-assessment of health are also meaningful. Beyond doubt, active use of com-

puters and the Internet builds more positive attitudes towards new technologies among respondents, offering seniors the opportunity to experience a higher quality of life.

Over 35% of those surveyed see the benefits associated with the use of computers and the Internet. They mentioned the following key advantages of using it:

- opportunity to intensify contacts with family, friends and the outside world,
- access to information on goods and services,
- help in maintaining relationships with friends living outside their place of residence,
- more contacts with people of the same profession, allowing them to share and further develop their passions and learn new things,
- opportunity to renew past contacts, thus building a network of strong support. This is vital for those elderly persons who suffer from chronic diseases,
- ability to communicate formally to establish relationships with pensioner communities, assistance facilities or care homes,
- access to medical websites containing reliable information about new treatments and tested drugs,
- opportunity to visit any places that are already unavailable to them in reality.

Senior Internet users interviewed especially see many advantages in terms of access to information. Over 90% of them positively assess both the range of available contents (timetables, recipes, information about medicines, cultural events, current world news, tourism- and entertainment-related contents), the speed of information receipt and a wide range of opinions that can be found on the web. More than 4/5 of respondents notice the benefits stemming from improvements in some everyday activities. Respondents report the following activities that have become easier thanks to the Internet: listening to music (68.6%), watching films (61.7%), editing and creating texts and Christmas/Easter cards (57.9%), storing photographs (31.8%), and learning foreign languages (23.4%).

More than 98% of active senior Internet users regard it as a very useful medium for maintaining contacts with others, thus contributing to significant enrichment of everyday life.

A number of studies aimed at gathering the views of Internet users on how seniors use the web suggest that by strengthening the existing and establishing new social contacts via the Internet, older people do not feel lonely and are less prone to depression [White et al., 2002]. According to the research by D. Batorski, the Internet use leads to the general life satisfaction, tendency to trust others more, less frequent consumption of addictive substances and the ability to cope with difficult situations better, including smaller reluctance to ask for help and advice [Batorski, 2015]. The research by T. Ernest-Jones suggests that access to much information contained on the web makes it easier for older people to continue professional work or participate in voluntary work projects, which helps improve their self-esteem and, often, financial situation [Ernest-Jones, 2008].

The surveys conducted imply that there is no correlation between the frequency of the Internet use and the sex of senior respondents. Nonetheless, such a relationship exists if their age and wealth are taken into account. The Internet is most frequently used by seniors aged 65–74 who have completed higher and secondary education and have a monthly per capita income of more than PLN 2000.

IMPLEMENTATION OF CONSUMPTION VIRTUALISATION IN BEHAVIOURS OF SENIORS

Virtualisation of consumption is reflected in online shopping for products and services. The surveys carried out show that fewer than 1/4 of respondents buy products and services via the Internet⁵. More than 2/3 of them consider online shopping to be as safe as conventional shopping. Opinions of others have the biggest impact on the confidence of those interviewed as every third respondent chooses shops recommended by friends. As for the frequency of purchasing products and services online, 24% of respondents buy them in online shops, nearly 21% of them shop on the Internet at least once a month, and almost every third a few times a year. Most senior e-consumers are members of the 65–74 age group. Men shop online more often than women. However, it is women who use the Internet to search for product information before making purchases more frequently than men. The direct research shows that online shoppers interviewed think that the biggest advantages of Internet shopping are:

- time savings (73%),
- home delivery (71%),
- opportunity to analyse offers at home (64%),
- low and competitive price of products and services (62%),
- greater choice of products than in traditional shops (21%),
- easy payment (17%),
- access to product information (9%),
- possibility of returning products without giving a reason (6%).

It should be stressed that more than 4/5 of respondents who buy products and services online consult reviews and recommendations posted on shop websites by other users, while every third respondent looks for them on independent websites and in comparable search engines. What is worrying is just that fewer than 2% of those surveyed read shop regulations and check certificates confirming the safety and reliability of shops.

⁵ Given the editorial requirements, this study presents only a small portion of research results. The issues examined herein will be presented more extensively in a forthcoming monograph on *Konsumpcja i zachowania konsumenckie osób starszych w Polsce [Consumption and Consumer Behaviours of Polish Seniors]*.

Respondents most commonly shop online for: clothing – 14.6%, electrical equipment – 12.7%, computers and accessories – 7.1%, cosmetics – 6.4%, books – 6.3%, including e-books and audio-books – 2.6%, and banking services – 3.7%. Other items mentioned by seniors are medicines and food supplements, train/bus/plane tickets, builders' ware, furniture, fixtures and fittings. The surveys reveal that the average value of goods and services purchased online was PLN 1967 per shopper. Among older consumers, online purchases are most frequently made by people aged 65–74, with higher or secondary education, monthly per capita income of above PLN 3000.00, living in Warsaw, Kraków, Gdańsk, Katowice and Toruń. This implies that online shopping is most popular among wealthier seniors. Given that affluent older people with high incomes do not form a large group of the Polish population, this perhaps is a reason for the low share of seniors in the online shopping market. It is also significant that the traditionalism and mentality of older people stand in opposition to online shopping.

When shopping online, senior respondents mostly visit classified advertising sites (mainly such as: Gratka.pl, Tablica.pl and Gumtree.pl), price comparison sites (especially such as: Ceneo.pl, Skapiec.pl and Nokaut.pl), and to a lesser extent online shopping malls and catalogues via mobile devices, paying for products through online payment systems.

Seniors also participate in online auctions. Respondents declare that Allegro is the most popular auction followed by slightly less common eBay. Older consumers more often buy than sell products there. Top products are: clothing, jewellery, books and films.

Continuous development of mobile technology modifies consumer preferences as to devices for Internet access. In the case of the elderly, those preferences do not change rapidly. More than 2/3 of the Internet users questioned connect to the web via a desktop computer or laptop, almost every third uses a smartphone, and only every tenth a tablet.

The processes of virtualisation also apply to consumption in the financial markets, which are constantly boosted by the development of electronic media. Nevertheless, consumption virtualisation should be considered in the context of the type of financial services purchased online, the scope of their use in the virtual world and the activity of consumers in communicating with financial institutions electronically. The research conducted reveals that only 63.4% of the elderly have a personal account. Only every tenth respondent opened a bank account via the Internet himself/herself, and the others did so at a bank branch. The main reason for such behaviour is obviously a concern about security of transactions and relatively low level of knowledge in this field. As for payment/credit cards, seniors acquire them exclusively at bank branches. None of the respondents ordered a payment/credit card via electronic channels. Also term deposits and savings accounts are mostly made and opened at bank branches. This is the case for more than 98.3% of respondents. A term deposit was made online only by 1.7% of them, where-

as savings accounts were opened in this way by fewer than 1.1%. The surveys clearly confirm slight interest in online banking services among the elderly. The reasons are the level of income, education and low digital literacy of older people. In addition, the direct research demonstrates that seniors are particularly at risk of financial exclusion⁶ since they are reluctant to use innovative products and distribution channels. Elderly clients of financial institutions are more conservative than younger customers and expect personal service, preferably provided by employees who they know.

Based on the surveys, it can be concluded that electronic banking services are purchased most often by people aged 65–74 and least frequently by those aged 85 and more. Sex also varies consumers in this regard. The proportion of men purchasing financial services in the virtual world themselves is definitely higher than that of women. Using a variety of financial services via the Internet is popular chiefly among people with higher education who live in large urban agglomerations (mainly in Warsaw, Kraków and Poznań), have monthly incomes of PLN 4001–5000 per capita and are members of two-person households.

The direct research shows that the Internet is an important source of information about financial institutions and the services that they offer only for every fifth senior respondent. More than 2/3 of those interviewed obtain information from employees of banking institutions and fewer than 20% from leaflets and other advertising materials.

The surveys reveal that a small proportion of older Internet users (6.3%) share their knowledge about financial services, other services and forms of their provision with other consumers. In this area, more activity is shown by women (7.8%) than men (4.8%), and people aged 65–74 (9.4%) who have completed higher education (7.1%), earn household disposable income per capita of above PLN 5000.00 per month (5.2%), and live in Warsaw (3.1%), Gdańsk (2.9%) and Toruń (2.8%).

Because of the rapid development of new internet technologies, Internet users, including the elderly, can be not just passive recipients of culture but can also independently create their own content and offer it to other Internet users without having to resort to traditional media such as television, radio, press or books. This is exemplified by the fast development of blogs and blogosphere.

The popularity of social media in today's globalised world makes it necessary for this trend to be considered as an extremely important factor influencing the lifestyle of modern consumers and their consumption decisions. Modern information technologies, especially computers, the Internet, smartphones, tablets and mobile phones, are an important source through which to raise consumers' awareness of their needs since they allow for obtaining information about various products,

⁶ According to the European Commission Report, "financial exclusion refers to a process whereby people encounter difficulties accessing and/or using financial services and products in the mainstream market that are appropriate to their needs and enable them to lead a normal social life in the society in which they belong" (*Financial Services ...*, 2008, p. 9).

help reveal new needs (when new products are spotted on the Internet) and change expectations as to products. Therefore, access that modern consumers have to information about products is broad and it is possible to obtain it remotely at one place.

Mobile Internet access makes it possible for more people to engage in social media activities regardless of time and location. More than 64% of the surveyed senior Internet users regularly use web portals, entering chat rooms or discussion forums. Participants in social networks establish or renew contacts, present their creative work, comment on events, exchange information and socialise. For many older people, experiencing the world in virtual life is as interesting as in real life. This is partly because virtual communities offer access to people and forms of activity unavailable in any other way. Fewer than 5.8% of respondents declare to create their own contents to be published, i.a., in social media. Such Internet activity is possible for older people thanks to communication tools such as e-mail, Skype or social networks which seniors use and appreciate. It is worth noting, however, that they are reluctant to post their photos on the Internet and trust the information found on the web less than younger people.

Using the Internet, seniors explore contents posted on the web (over 70%), listen to music (42.3%) and seek religious and spiritual contents (36.2%). Senior Internet users mostly look for current world news or health information (73.6%), followed by contents concerning tourism (61.6%) and entertainment (53.4%). In addition, older people browse erotic (9.6%) and gambling websites (1.9%) less frequently than younger generations. It should also be mentioned that senior Internet users, while online, usually listen to the radio or watch TV, which may be caused by the fact that television and radio are primary sources of information for this age group.

The surveys conducted show that social networks and blogs are visited by 3 out of 5 respondents who actively use the Internet. They spend approximately 25% of the time spent on the Internet there, and 1/3 of respondents say that they view the contents of social media on their mobile devices. Among the seniors interviewed, social networks and blogs are most frequently visited by people aged 65–74, with secondary and higher education, living in Warsaw, Gdańsk and Lublin, and earning a monthly per capita income of more than PLN 2000.

The direct research also suggests that the seniors surveyed primarily use e-mail (about 76.8%) to communicate online, use instant messengers (34.8%) less often than younger people, and occasionally write blogs (3.1%). Seniors using e-mail and instant messengers use them mainly to correspond with several people, mostly their immediate family and friends. By maintaining contacts with relatives, friends and the rest of society, seniors reduce the sense of loneliness and social exclusion. Almost 1/5 of senior Internet users claim that they have more friends and acquaintances thanks to the Internet.

The research reveals that seniors take a rather reserved attitude towards marketing research. Every fifth respondent ignores web-based surveys, every third is not interested in them and 7% consider them dangerous. Positive attitude to

e-surveys is displayed by merely every sixth respondent. Similar reluctance is shown by older people to e-advertising. More than 29% of seniors do not like them at all and 32% are not interested in them. Only 15% of respondents positively assess advertisements published on the Internet.

The above-mentioned research results suggest that the Internet use may offer significant benefits to the elderly because it allows satisfying many needs specific to this age group and helps overcome limitations resulting from the psychophysical condition of seniors.

CONCLUSION

Concluding the issue of consumption virtualisation in behaviours of seniors, it may be stated that:

1. The psychophysical condition and withdrawal from different forms of activity by older people significantly contribute to the digital exclusion of this group.
2. The causes of the digital divide should be sought in the specific development in old age and motives, beliefs and competencies of older people.
3. A relatively small percentage of online shoppers among the elderly may largely result from limited access to the Internet, lagging behind technological development and using obsolete applications.
4. Older people who use computers and the Internet are able to access more information, it is easier for them to communicate with family members and friends and run everyday errands.
5. Using the Internet prevents the feeling of loneliness and social exclusion. Being up to date and in touch with friends, family and the younger generation makes them feel like full members of the society.
6. The Internet use leads to the general life satisfaction, tendency to trust others more and ability to cope with difficult situations better, including smaller reluctance to ask for help and advice.
7. A small proportion of older people use the Internet in a more advanced way, i.e. for online banking, online shopping, e-learning or visiting chat rooms.
8. The majority of senior Internet users use it passively, visiting journalistic and informational websites and entertainment and cultural portals. A negligible proportion of seniors create contents of the virtual world on social networks, where activity is based on sharing contents such as photos and personal information.
9. Seniors combine the Internet use with other media, i.e., while online, they mostly listen to the radio or watch TV, which may be essentially explained by the fact that television and radio are still primary sources of information for this age group.
10. Those seniors who do not use computers or the Internet do not have a direct incentive to use the web because they are accustomed to satisfying their needs in a traditional way.

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Summary

Skilful use of the Internet allows contemporary consumers to take full advantage of the civilisational, cultural, social and economic achievements to date. The use of modern technology and the Internet is undoubtedly a great opportunity for modern households to raise their living standard and quality of life, increase professional mobility and develop intellectually. These trends are also followed by seniors. However, due to the rapid development of ICT, some seniors who use computers are lagging behind the technological development, using mainly obsolete applications. This, in turn, means that seniors use the Internet to search for information about products, shop online or use online banking services in the virtual world less often than other age groups.

The aim of this article is to provide an insight into how consumption virtualisation affects consumer behaviours of Polish seniors. The structure of the article is as follows. After a brief introduction, the first section explains consumer behaviours and, consumption virtualisation as an alternative consumer trend and discusses the availability of the Internet among Polish consumers, including the elderly. In the second part hereof, the research methodology and the research sample selection are outlined, and then the concentration is on the use of the Internet by Polish seniors and the implementation of virtualisation processes in consumer behaviours of this age group.

Keywords: consumption, consumer behaviour, Internet, virtualisation of consumption, social media

Wirtualizacja zachowań konsumpcyjnych polskich seniorów

Streszczenie

Umiejętne korzystanie z internetu wśród współczesnych konsumentów pozwala na pełne korzystanie ze zdobyczy cywilizacyjnych, kulturowych, społecznych i ekonomicznych dzisiejszego świata. Wykorzystanie nowoczesnej technologii i internetu jest niewątpliwie olbrzymią szansą dla współczesnych gospodarstw domowych w zakresie podniesienia ich poziomu i jakości życia,

wzrostu mobilności zawodowej czy też rozwoju intelektualnego. Tym trendom ulegają także osoby starsze. Jednak szybki rozwój ICT sprawia, iż część osób starszych posługujących się komputerem „nie nadąża” za rozwojem technologii, korzystając przede wszystkim z przestarzałych aplikacji. To z kolei powoduje, że seniorzy w świecie wirtualnym rzadziej niż inne grupy wiekowe wykorzystują internet do poszukiwania informacji o produktach, dokonywania zakupów online czy korzystania z bankowości internetowej.

Celem artykułu jest uchwycenie wpływu procesów wirtualizacji konsumpcji na zachowania konsumentów osób starszych w Polsce. Struktura artykułu jest następująca. Po krótkim wprowadzeniu, w pierwszej części opracowania skupiono się na wyjaśnieniu istoty zachowań konsumentów, wirtualizacji konsumpcji jako alternatywnego trendu konsumenckiego, a także na omówieniu dostępności internetu wśród polskich konsumentów, w tym seniorów. W drugiej części opracowania, po omówieniu metodologii badania oraz doboru próby badawczej, uwagę skupiono na wykorzystywaniu internetu przez polskich seniorów oraz na implementacji procesów wirtualizacji w zachowaniach konsumentów tej grupy wiekowej.

Słowa kluczowe: konsumpcja, zachowania konsumentów, internet, wirtualizacja konsumpcji, media społecznościowe

JEL: A12; C18; C46; D03; D12