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TRANSPORTATION PREFERENCES AND TRAVEL BEHAVIOUR OF SENIOR CITIZENS IN GDYNIA IN THE LIGHT OF MARKETING RESEARCH

Abstract

With the increasing role of senior citizens in modern societies it is important to know, *inter alia*, their transportation preferences and travel behaviour. The article presents the definition of a senior citizen taking account of different age of a person defining the beginning of this stage in life. Afterwards, various stages of seniors' lives were distinguished as regards changes in lifestyle. The average life expectancy was also specified, defining the beginning of senior stage of life. The main part of this article was dedicated to the specificity of transportation preferences and travel behaviour of seniors as a specific group of the inhabitants of Gdynia, located within Gdańsk Metropolis. To this end, the data gathered during representative research conducted in 2015 was used. By analysing the data it was possible to determine the specificity of seniors' urban travel purposes and their demands taking particular account of the comfort of travel. The article presents the modes of travel of seniors against all inhabitants considered collectively searching for determinants of choosing a particular mode of travel. Moreover, the article presents differences in assessing the quality of public transport by seniors and all inhabitants of the city. The final part provides conclusions drawn from the conducted research.

Keywords: urban transport, marketing research, seniors

Introduction

In the structure of population the number of seniors has constantly been increasing. The phenomenon can also be observed in Poland. Seniors have specific needs, including their travel needs. The city in Poland where research on transport

needs, regarding transportation preferences and travel behaviour, are organized on a regular basis in Gdynia, located within Gdańsk Metropolis. The last round of research was conducted in 2015, and the collected material made it possible to single out seniors as a specific group of inhabitants. This article aims to analyse and determine the specificity of transportation preferences and travel behaviour of seniors in Gdynia, considered collectively, based on research result of 2015.

1. Concept and Lifestyle of Senior Citizens

For years, in the United States each generation has been given its own name. Generation X includes people born in 1960s and 70s, generation Y – people born in 1980s and 90s. Generation Z is the youngest modern generation born in the 21st century. The American marketing specialists differentiate also elderly age groups and indicate their specific needs. Those born before 1925 belong to the Greatest Generation, born between 1925 and 1944 are the Silent Generation. The subsequent generation with the majority of people who belong to senior citizens are the so called Baby Boomers, born during the post-war demographic boom in 1940s and 50s (Majkowski, 2013).

In accordance with PWN (Polish Scientific Publishers) senior citizen is the eldest member of a family, family tree, and group. Taking account of the stages in people's lives, senior citizen is a person in its final stage of life when various regressive changes can be observed (Bień, Cichoń et al., 2002). The lowest age limit of a senior citizen can differ. For a long time, people aged over 70 were perceived as senior citizens. Recently, the limit has been gradually decreased (Erikson, 2012), reaching the level of 60 to 65. In numerous statistical publications, seniors are people aged over 60 (*Seniorzy w Polsce i na świecie*, 2017).

The Anglo-Saxon literature provides the division of seniors into three groups (Błądowski, Szatur-Jaworska et al., 2012):

- young old – people aged 60 to 74 (from another perspective 65 to 74),
- old old – people aged 75 to 84,
- the oldest old – people aged 85 and more.

Learning the differences between particular groups of seniors is key for the purpose of proper communication with them and identification of their needs as clients. Senior citizen aged up to 65, and even up to 70 is usually able to work professionally, help to raise grandchildren and run household on their own. People aged over 70 usually due to their health status do not work anymore. They can help their relatives to some extent, but they also need help themselves. Their consumption needs are also beginning to change. Another lifestyle and scope of needs refers to people aged more than 80.

The aforementioned age groups provide only approximate division making it possible to identify differences between particular groups. Unfortunately, no terminology on particular age groups was developed in Poland. Upon offering services for seniors it is important to identify which group to address. Together with the development of services for the oldest generation our knowledge on improving the quality of services for seniors is going to expand.

2. Senior Citizens in the World and in Poland

The average life expectancy is getting longer (Figure 1). Globally, at the beginning of 1960s it failed to exceed 60 years. Today it is close to 80.

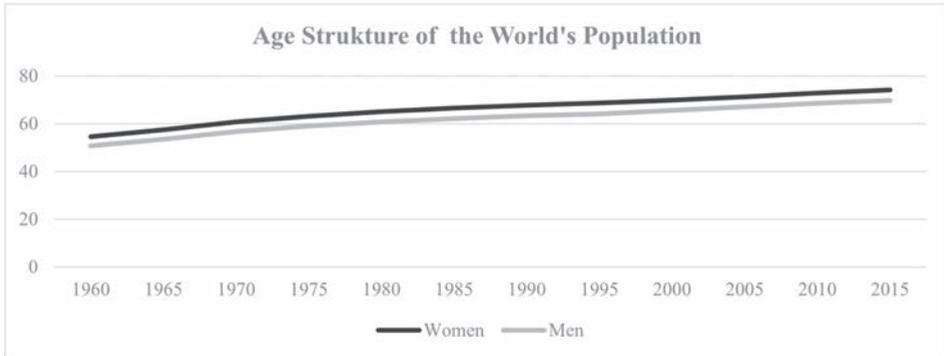


Figure 1. Average life expectancy in the world between 1960 and 2015

Source: (Seniorzy w Polsce i na świecie, 2017)

Within the last 25 years, the number of people aged more than 60 increased by 3.5 million in Poland. According to estimates the number of people in Poland is going to fall. However, the share of seniors will still grow. The aging process of societies is influenced by two factors: longer life span and low birth rate. In 2016, the number of seniors in Poland, namely people aged more than 60 amounted to 9 million (Table 1). More than 50% of seniors included people before 70 years of age.

Table 1. Seniors in Poland in 2016

Age	Number of people (thou.)	Share (%)
60-64	2 750	30,45
65-69	2 270	25,14
70-74	1 290	14,29
75-79	1 110	12,29
80-84	869	9,62
85-89	519	5,75
90-94	187	2,07
95-99	30,7	0,34
>100	4,9	0,05
Total	9 030	100

Source: (Seniorzy w Polsce i na świecie, 2017)

The average lifetime in Poland will become longer (Figure 2). According to estimates in the middle of this century it will amount to more than 85 years for women, and over 80 for men.

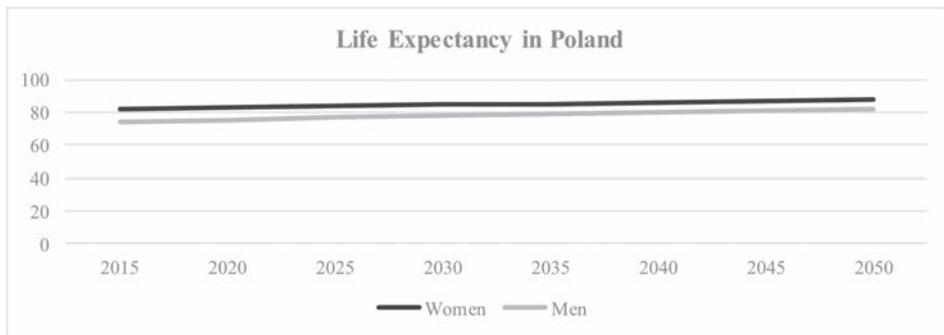


Figure 2. Average lifetime in Poland between 2015 and 2050
Source: (Seniorzy w Polsce i na świecie, 2017)

3. Specificity of Transportation Preferences and Travel Behaviour of Seniors in Gdynia

3.1. Methodology and Scope of Research

Research into transportation preferences and travel behaviour of seniors has been conducted in Gdynia since 1996 as part of representative research into transportation preferences and travel behaviour of the city inhabitants (Hebel, 2013). The research conducted on a sample of 1% of inhabitants between the age of 16 and 75, was overseen by the Chair of the Transportation Market at the University of Gdańsk, Poland, in cooperation with the Public Transport Board of Gdynia. The method adopted for this research consisted of in-person survey in the form of a questionnaire which was carried out in the respondents' homes.

For research purposes the questionnaire included the following age groups of inhabitants expressed in years of life: 16–20, 21–30, 31–40, 41–50, 51–60, 61–70 and 71–75. As a result, the group of seniors was defined comprising people aged 61 to 70 and 71 to 75.

3.2. Seniors in the Structure of Analysed Inhabitants

Among 2000 inhabitants of Gdynia subject to transportation preferences and travel behaviour research 24% refer to seniors: 19% aged 61 to 70 and 5% aged 71 to 75. The share of seniors' households with a private car is definitely lower than all households (Figure 3).

Private car is owned by:

- 58% of households with people aged 61 to 70;
- 48% of households with people aged 71 to 75;
- 72% of all households considered collectively.

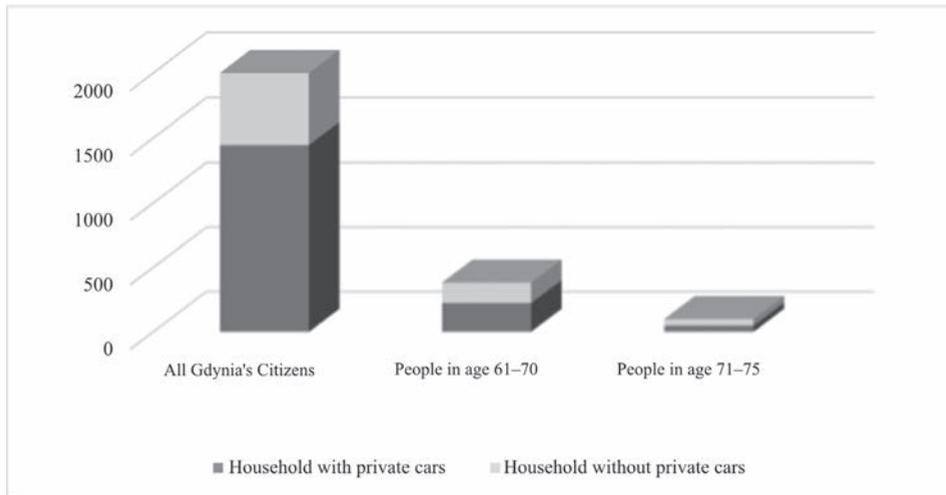


Figure 3. Seniors compared to the total number of respondents taking account of automobile status (%)

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.3. Purpose of travel

Seniors stand out against the inhabitants of Gdynia considered collectively by the purpose of urban travel (Table 2). For all inhabitants the dominant purpose of travel, apart from home, is travel to the place of work (23% of travels); for seniors – travel to the place of personal errands (21% of travels among people aged 61 to 70 and 27% of travels among people aged 71 to 75). For seniors more important are also their travels for shopping. This purpose in the structure of all purposes of travel among the inhabitants of Gdynia considered collectively amounts to 8%; among seniors aged 61 to 70 – 14%; and seniors aged 71 to 75 – 16%.

Table 2. Purpose of urban travel (% of answers)

Purpose of travel	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Home	43,77	44,04	45,45
Work	22,91	9,85	0,76
Personal errands	11,62	21,42	27,27
Shopping	7,94	13,64	15,91
Study	3,40	0,52	0,76
Transporting others	3,30	1,38	0,76
Social life	2,67	3,28	3,03
Recreation	2,54	4,66	6,06
Professional and business errands	1,84	1,21	0,00

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.4. Travel Demands

Data in Table 3 proves that the most important seniors' travel demands, as for the inhabitants of Gdynia in total, include direct access, punctuality, frequency and availability. In case of seniors the relative importance of direct access is higher than average. There are some differences regarding demands considered less important. For seniors more important is the demand of the comfort of travel than average for the inhabitants of Gdynia. Among all inhabitants it ranks 8th place, whereas among seniors aged 61 to 70 it ranks 6th place and among seniors aged 71 to 75 – even 5th place. In case of the latter group we can treat this demand as one of five most important demands. Among the demands from people aged 71 to 75, the cost of travel ranks low in terms of importance, namely 7th place; among younger seniors it ranks 5th place. It is likely to result from the fact that seniors are entitled to free travels.

Table 3. Travel demands (% of answers)

Demand	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Direct access	18	21	21
Frequency	17	15	18
Availability	13	13	12
Reliability	8	6	6
Low cost	8	8	4
Speed	6	4	2
Punctuality	18	19	18
Rhythmicity	3	3	2
Information	1	1	2
Comfort	5	7	10
Other	0	0	0
None	3	2	4

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.5. Expected Level of Comfort

The specificity of seniors' transportation preferences is also reflected in the expected level of comfort (Table 4). Twenty seven percent (27%) of all inhabitants always expect a seat, while a seat is always demanded by 47% of seniors aged 61 to 70 and 54% of seniors aged 71 to 75. A standing place in non-arduous conditions is acceptable, on average, to 24% of Gdynia inhabitants, and to only 15% of seniors aged 61 to 70 and 12% of seniors aged 71 to 75.

Table 4. Expected level of comfort (% of answers)

Demand	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Always a seat	27,00	46,98	54,08
Usually a seat	38,75	28,61	30,61
Standing place in non-arduous conditions	24,05	15,49	12,24
Acceptable ride in crowded conditions	3,15	2,89	1,02
Don't know	7,05	6,04	2,04

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.6. Declared Mode of Transport

The specificity of seniors' travel behaviour is presented in data analysis in Table 5 related to various modes of urban travel. Twenty five percent (25%) of inhabitants considered collectively declare their travel always by public transport. Among seniors such declaration is made by 35% of people aged 61 to 70 and 43% of people aged 71 to 75. Whereas twenty three percent (23%) of inhabitants, on average, declare their travel always by private car, compared to only 18% of seniors aged 61 to 70 and 6% of seniors aged 71 to 75.

Table 5. Declared mode of urban travel (% of answers)

Mode of travel	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Always by public transport	25,15	34,91	42,86
Usually by public transport	22,00	18,37	30,61
Equally by public transport and private car	11,05	11,81	12,24
Usually by private car	18,15	14,70	7,14
Always by private car	22,50	18,37	6,12
Usually by bicycle	0,70	1,31	0,00
Other mode (on foot, motorbike)	0,45	0,52	1,02

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.7. Actual Mode of Urban Travel

By analysing modes of urban travel under the so-called photo of the day (Table 6) we can observe the dominance of car in urban travels among all the inhabitants (58%), equal status of car and other modes of transport in case of seniors aged 61 to 70 (50% for each mode) and dominance of public transport in case of seniors aged 71 to 75 (67%).

Table 6. Actual mode of urban travel (% of answers)

Mode of travel	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Bus	24,48	27,69	35,81
Trolleybus	10,55	16,14	29,91
Rapid Urban Railway or Rail	4,79	1,79	1,87
Tram	0,12	0,20	0
Public Transport in Total	39,94	45,82	67,29
Car as a driver	51,03	42,23	14,95
Car as a passenger	6,79	7,97	15,89
Bicycle	1,82	3,98	1,87
Other (on foot, motorbike)	0,42	0,00	0,00
Individual Modes of Transport in Total	60,06	54,18	32,71

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.8. Determinants of Public Transport Choice

Determinants of public transport choice in urban travels by people having their own private car (Table 7) are different in terms of importance in case of all inhabitants of Gdynia considered collectively and seniors. The three most important factors are as follows:

- for all the inhabitants of Gdynia: using the car by another person (18% in the total number of reasons), problems with parking the car at the place of destination (16%) and parking fees (13%);
- for seniors aged 61 to 70: problems with parking the car (18%), parking fees (16%), lower cost of travel by public transport and satisfactory quality of public transport (14% for each of these factors);
- for seniors aged 71 to 75: problems with parking the car (18%), parking fees and lower cost of travel by public transport (16% for each of these factors).

Table 7. Determinants of public transport choice in urban travels by people having their own car (% of answers)

Factor	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Using the car by another person	17,69	10,69	12,24
Problems with parking the car at the place of destination	16,05	18,32	18,37
Parking fees	13,08	15,65	16,33
Lower cost of travel by public transport	12,00	13,36	16,33
Satisfactory quality of public transport	10,68	14,12	14,29
Congestion	10,61	10,69	12,24
Psychophysical disorders	7,08	5,73	2,04
Poor technical condition of car	5,24	4,20	2,04
Weather conditions	5,12	4,20	6,12
Other	2,46	3,05	0,00

Source: (own elaboration based on *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

3.8. Determinants of Private Car Choice

The three most important factors in choosing private car for urban travels (Table 8) among all the inhabitants and seniors include:

- better comfort,
- shorter travel time,
- transport of things or shopping.

Table 8. Determinants of private car choice in urban travels (% of answers)

Factor	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Better comfort	23,78	29,01	33,33
Shorter travel time by car	21,80	18,43	14,81
Transport of things or shopping	10,36	11,95	14,81
No need to wait	8,95	7,51	3,70
No need to change	7,30	7,85	3,70
No need to walk to and from the bus stop	6,45	6,48	7,41
Use of car as a working tool	5,32	4,44	0,00
Transport of children	5,08	2,05	0,00
Lower cost of travel by private car	2,97	1,02	3,70
No troublesome company of other people	2,78	1,37	0,00
Safety	2,02	1,37	0,00
Poor health status	1,93	6,48	14,81
Other	1,27	2,05	3,70

Source: (own elaboration based on *Preferencje i zachowania komunikacyjne mieszkańców Gdyni, 2015*)

Seniors stand out against all inhabitants of Gdynia in terms of importance of most significant determinants. In case of seniors, the comfort of travel is the most important element in the structure of all purposes (people aged 61 to 70 and 71 to 75, 29% and 33% respectively) compared to all inhabitants considered collectively (24%). Lower share, in case of seniors, refers to the time of travel (people aged 61 to 70 and 71 to 75, 18% and 15% respectively) compared to all inhabitants considered collectively (22%).

3.9. Quality Assessment of Public Transport Services

Senior citizens rate the quality of public transport services in Gdynia higher than all inhabitants considered collectively (Table 9). Thirty two percent (32%) of people aged 61 to 70 and 43% of people aged 71 to 75 gave such services a very good rating compared to 28% of all the inhabitants.

Table 9. Quality assessment of public transport services

Rating	Gdynia Inhabitants in Total	People aged	
		61 to 70	71 to 75
Very good	27,50	32,28	42,86
Good	58,20	52,76	52,04
Satisfactory	4,85	3,94	2,04
Unsatisfactory	0,55	0,52	0
Don't know	8,90	10,50	3,06

Source: (own elaboration based on: *Preferencje i zachowania komunikacyjne mieszkańców Gdyni*, 2015)

Conclusions

In the light of research conducted among the inhabitants of Gdynia senior citizens stand out as regards their purpose of urban travel, transportation demands, travel behaviour and quality assessment of transport services compared to all inhabitants considered collectively:

- for seniors the most important purpose of urban travel is access to places of personal errands, for all inhabitants – access to places of work;
- for seniors the comfort of travel is more important than for all inhabitants of Gdynia;
- 50% of seniors always demand a seat during the travel, on average – only every fourth inhabitant;
- in the light of research on the structure of urban travel seniors to a dominant extent travel within the city by public transport, whereas all inhabitants of Gdynia considered collectively – by private cars;
- for seniors who have their own private car the most important reason for choosing public transport in urban travels are problems with parking the car at the place of destination, for all inhabitants – use of their car by another person;
- for seniors who choose private car in their urban travels the comfort of travel is more important than in the case of all inhabitants considered collectively.
- seniors rate the quality of public transport services in Gdynia higher than all inhabitants considered collectively.

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