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An Investigation of Consumer Behavior in Telecommunication Services

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ABSTRACT

Nowadays, any company needs well-organized marketing research in order to have success, to make the necessary management decisions, to prepare a strategy and carry it out. The current article contains a result of marketing research on the telecommunication service market, including the consumer behavior in mobile communication and wireless Internet services. The purpose of the study, its objectives and methodology are developed and shown here, as well as the composition and size of the studied sample. The result of the marketing research based on a survey is deeply analyzed, the consumer behavior in mobile communication and wireless Internet services is studied by all sides. A list of questions was prepared in advance for the marketing research. Respondents were interviewed according to this questionnaire; the specifications of the mentioned services market and consumer preferences and requirements were determined. According to the marketing research for determining the consumer behavior in mobile communication and wireless Internet services, a number of important results for manufacturers in this market were identified.

Keywords: Consumer behavior, marketing research, telecommunication services, mobile communication, wireless Internet, respondent, preferences, requirement.

1. INTRODUCTION

Marketing research is a complex of services integrating the decision-making process in order to reduce the uncertainty of data collection, processing, analysis and presentation of the results (Malhotra 2009; Churchill 2009; Aaker, Kumar & Dayn 2004). In market conditions, marketing research becomes a basis of planning and organization of whole production and sales for companies.

Currently, there is no doubt that it is very important to study the behavior of consumers in order to develop and implement marketing strategies. In this regard, the marketing research of the behavior of consumers is organized and executed in order to develop a strategy for the development of the telecommunications sector. Thus, the purpose of the marketing research is the preparation and implementation of marketing strategies for the development of the telecommunication companies by means of collecting information concerning the behavior of consumers and putting it into order (Dusembekova 2013).

2. METHODOLOGY

The marketing research was held by means of a survey. The methods of researching consumer preferences and requirements were selected depending on the purpose of the study; the method of review requests (requests for opinions via survey) was carried out.

The questionnaires consisted of open and closed questions presented to consumers. On the basis of a preliminary inquiry (20 respondents), the questionnaire was tested and as a result it was differentiated by certain changes.

The next step in representativeness control was checking the answers coefficient. Checking the answers ratio, which is a key factor in conducting this survey, was carried out (Golubkov2008). The responses ratio in the analyzed companies is not less than 65%, *i.e.* the representativeness condition is fulfilled.

250 people were interviewed in order to analyze the consumer behavior in the wireless telecommunications market.

3. RESEARCH RESULTS

The first question in the survey was if the respondents use telecommunication services. The analysis of the answers to this question showed that 100% of the respondents use telecommunication services. At the same time, while conducting the survey, the age of respondents was also taken into account and it was discovered that all groups of age use mobile phones equally, but only 2% of people between 56-65 years old use it.

The further analysis of responses shows that the most active users of mobile Internet connections are people in the following age groups: 18-25 (26%), and 26-35 years old(28%). In addition, 98% of respondents use mobile communication services and 71% use mobile Internet connections.

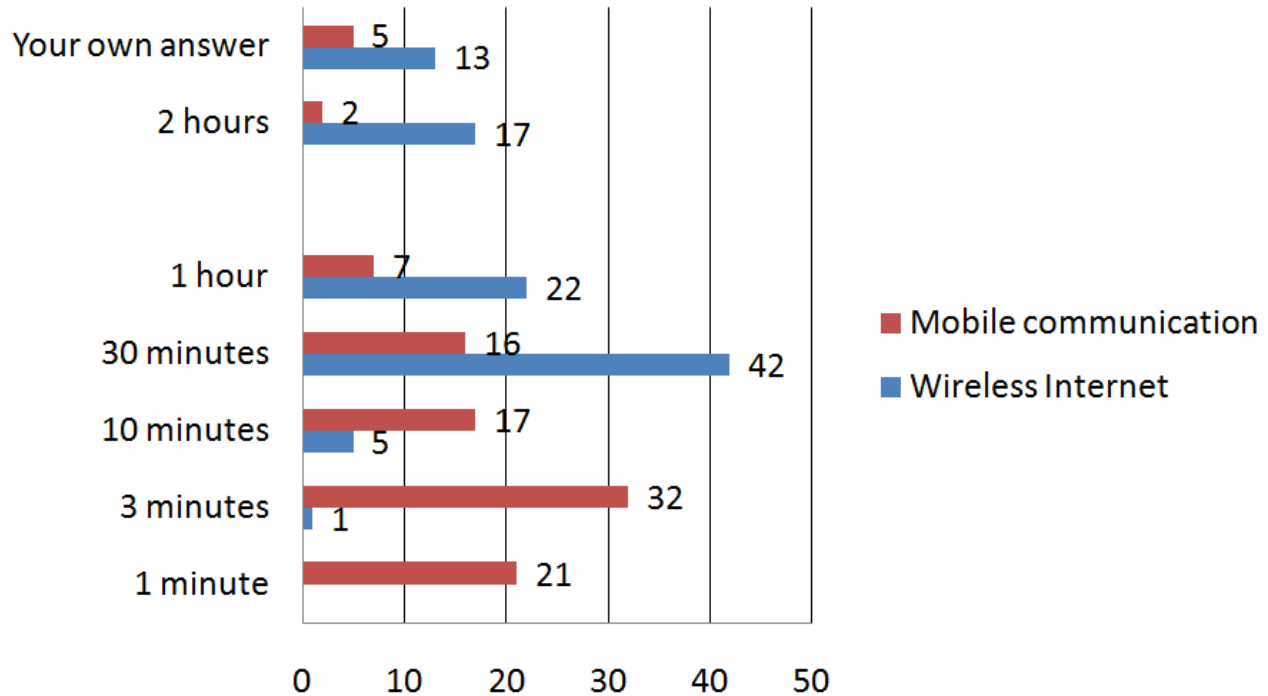
Table 1 shows the information about the frequency of the use of telecommunication services by the respondents.

Table 1
“How often do you use telecommunication services?” question results

Type of service	Several times a day	Every day	Several times a week	Several times a month	Once in a month	Once in three months	Once in a half year
Wireless Internet	20%	22%	13%	28%	12%	3%	2%
Mobile communication	90%	5%	3%	2%	–	–	–

Note : Developed by the author on the basis of the study.

In order to define the time people spend using their mobile phones, the respondents were asked the following question while interviewing “How much time do you spend for telecommunication services?” The answer to this question is shown in Figure 1.

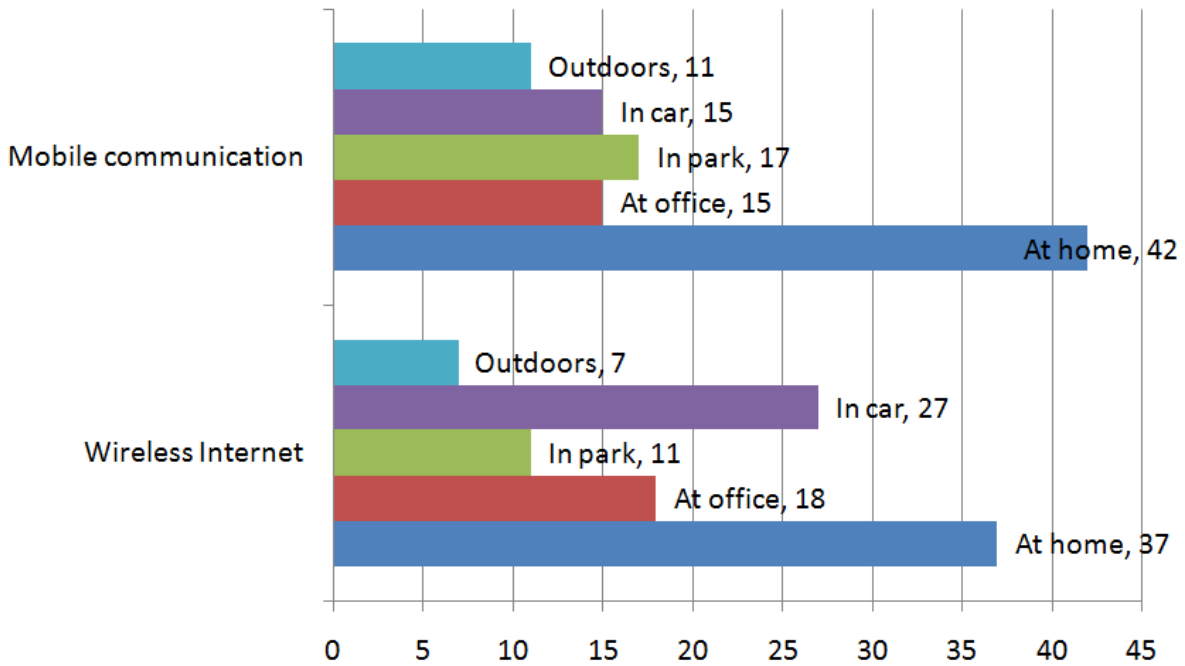


Note: Developed by the author on the basis of the study.

Figure 1: “How much time do you spend for telecommunication services?” question results

As can be seen in Figure 1, among the telecommunication services conversation duration for 32% of respondents reaches 3 minutes, for 21%, 17%, 16% - 1 minute, 10 minutes, 30 minutes, respectively. It is also known that 1-minute and 3-minute calls are popular among the 36-45, 46-55 aged respondents, at the same time 16-25, 26-35 aged people spend 10 and 30 minutes for their conversations. Thus, we can resume that tariffs developed for young people consider long conversations, and it can be supposed that middle-aged and older people make calls only for short business talks.

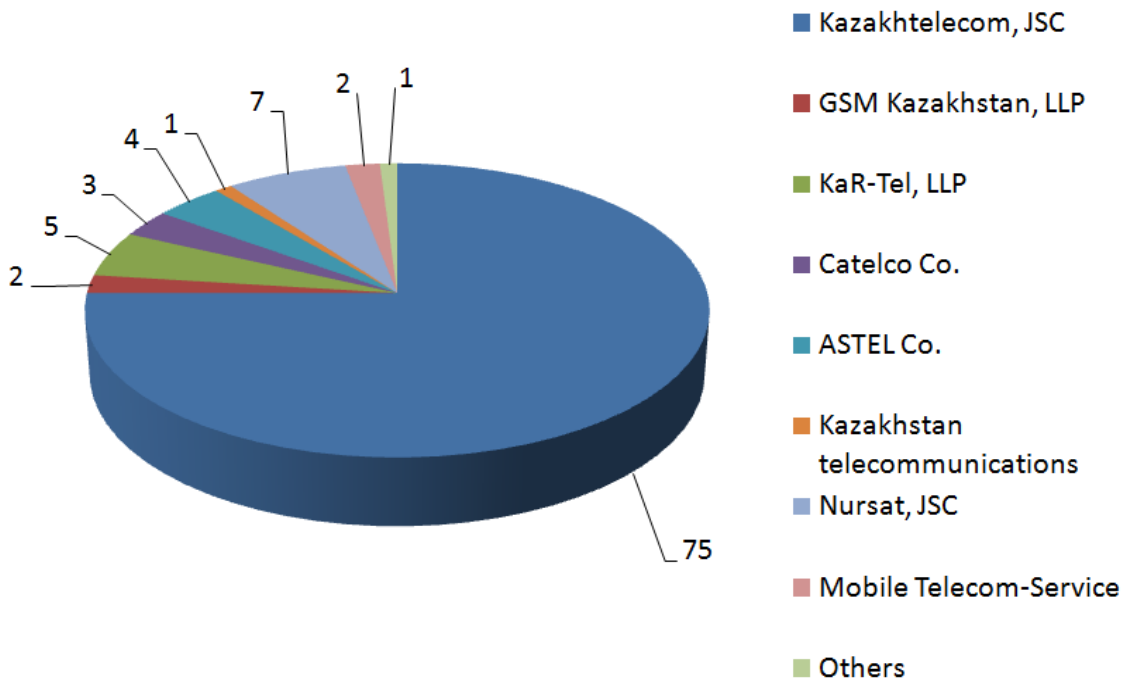
The question results on determining the location where respondents use telecommunication services are denoted in Figure 2. The results of the current survey show that no matter what type of telecommunication wireless connection it is, the most popular place for respondents of using it is their home. 37% of respondents use wireless Internet at home, the number of people who use mobile communications at home reaches 42%. One more interesting fact is that the percentage of those who use wireless Internet inside cars is also high (27%); in our opinion, these could be taxi clients or users of public transport, because it is not convenient for a driver to use wireless Internet.



Note: Developed by the author on the basis of the study

Figure 2: “Name the place where you often use communication services” question results

Figure 3 presents responses to the question “What wireless telecommunications providers do you know?”



Note: Developed by the author on the basis of the study.

Figure 3: “What wireless telecommunications providers do you know?” question results

According to the answers to the question “What wireless telecommunications providers do you know?”, despite the fact that respondents use wireless Internet and mobile communications, and are able to recognize brands, however, they do not know providers of the above-mentioned services. 75% of respondents recognize “Kazakhtelecom” JSC, “Nursat” JSC is on the second place (7%), then follow “ASTEL” (4%) and Catelco (3%) companies.

The answers of respondents to the question “Which brand do you choose in the market of wireless telecommunication services?” were as follows: according to the consumer preferences, the Kcell brand takes the first place with 22.3%; on the second place there is Activ brand with 22.1% among the surveyed consumers. Beeline brand owns the third place in consumer preferences with 21.2%. Tele 2 brand is on the fourth place (16.5%), and the next selected brand is Altel (10.7%).

The next survey question was “According to what criteria do you choose the brand in the wireless communications market?” As a result of analysis of the responses to this question, it is identified that consumers’ choice of mobile communication depends on such important factors as the price of the service, the quality of connection and the variety of given services. The price of mobile telecommunication services in the first place for respondents (33%) was identified as a key factor, the second place takes communication quality (25%), and the variety of services goes to the third place (11%) as an important factor.

Thus, it was identified that the price, the quality of communication and the availability of a wide range of offered services play a key role in choice of mobile communications nowadays. Respondents also mark that the price and quality are very important factors in choosing mobile Internet providers. After that, respondents noted that the level of service and discounts are important as well.

During the survey, respondents were asked if they are satisfied by the wireless communication services. According to the results, the majority of survey respondents – 77.7% were satisfied with the mobile services, the dissatisfaction with the choice amounted to 22.3%. The main reason for dissatisfaction is the factor of price and quality. 37% of surveyed respondents think that the service quality is very low, 29% claim that the price is very high. In addition, the proportion of respondents who said that the service is at a low level is 12%, the number of respondents who believe that information is insufficient reaches 13%, and 9% claimed that the variety of offered services is not as wide as it could be.

According to the survey results, 73% of respondents are satisfied with mobile Internet service, 27% showed their dissatisfaction with the choice of mobile Internet, the low level of service and the high price were defined as the main factors of this dissatisfaction.

The answers to the question “Are you satisfied with the price of mobile communication and wireless Internet services?” are as follows: 78% of respondents confirmed their satisfaction with “yes” and 22% of respondents answered “no”. The reasons of dissatisfaction are represented in Figure 4.

41% of respondents answered that “prices are raised excessively and not objectively”, 32% replied that “the service and its price are not in accordance with each other”, and the remaining 27% of the respondents indicated that “the price did not correspond to the level of income”.



Note: Developed by the author on the basis of the study

Figure 4: “Are you satisfied with the price of mobile communication and wireless Internet services?” question results

The analysis of the answers to the question “How much money do you spend per month to communications?” defined that 33% of respondents spend 1500 tenge per month, 25% of respondents pay 1000 tenge per month, 15% of surveyed expend 2000 tenge per month. It is determined that surveyed respondents spend more money for mobile Internet than for mobile communication. If we analyze the cost of their mobile Internet, 19% of respondents spend 4500 tenge for mobile Internet, and 16% expend 5000 tenge.

The second part of the questionnaire should include questions relating to the identity of the respondents, what allows in its turn to divide the market according to its socio-demographic indicators (Bozhuk & Kovalik 2009). According to the result of marketing research, the socio-economic indicators relating to the identity of the respondents participated in this study were obtained (Table 2).

Table 2
The information relating to the identity of the respondents

<i>Questions</i>	<i>Results</i>
<i>Your gender?</i>	
Male	48%
Female	52%
<i>Age?</i>	
16-25 y.o.	27.2%
26-35 y.o.	23.2%
36-45 y.o.	18.2%
46-55 y.o.	14.5%

<i>Questions</i>	<i>Results</i>
56-65 y.o.	9.5%
More than 65 y.o.	7.4%
<i>Education?</i>	
Incomplete secondary education	3%
Incomplete higher education	11%
Secondary education	18%
Special education	25%
Higher education	43%
<i>Occupation</i>	
Employee	21%
Worker	18%
Student	23%
Self-employed	18%
Housewife	9%
Retired	7%
Unemployed	4%
<i>The marital status?</i>	
Single	38%
Married	62%
<i>The average monthly income of your family?</i>	
Upto 30,000 tenge	13%
31,000-50,000	12%
51,000-100,000	23%
100,001-150,000	37%
150,001-200,000	10%
More than 200,000	5%

Note: Developed by the author on the basis of the study

The use of mobile communication and mobile Internet services distribution depending on the gender and age of respondents is shown in Table 3.

Table 3
Segmentation of the respondents according to age and gender

<i>Gender of respondents</i>	<i>Age of respondents</i>						<i>Total, %</i>
	<i>16-25</i>	<i>26-35</i>	<i>36-45</i>	<i>46-55</i>	<i>56-65</i>	<i>More than 65 y.o.</i>	
Males	15	10.1	11	6.3	4.2	1.4	48
Females	12.2	13.1	7.2	8.2	5.3	6.0	52
Total, %	27.2	23.2	18.2	14.5	9.5	7.4	100

Note: Developed by the author on the basis of the study

As can be seen from the Table 3, there were 48% male and 52% female surveyed respondents.

15% of men were 16-25 aged, 10.1% – 26-35 aged, 11% – 36-45 aged, 6.3% – 46-55 aged, 4.2% – 56-65 aged and 1.4% – more than 65 years old. It can be noticed here that the majority of surveyed men were between 16-45 years old. In this age, most calls are made in business purposes and in order to make acquaintances.

Women amounted to 52% in this sampling. Considering the distribution of age groups, we have the following: 12.2% of 16-25 year-olds, 13.1% of 26-35 year-olds, 7.2% of 36-45 year-olds, 8.2% of 46-55 year-olds, 5.3% of 56-65 year-olds, 6% – above 65 years old. 16-25 year old women frequently use mobile phones for dating, friendship, relationships, as part of the image; 26-55 year old women are divided into two categories, the first ones are housewives, they use mobile phones to communicate with their friends which are also occupied in housekeeping, and also with their husbands. However, working 26-55 year old women use it mostly in business purposes. Groups of women between 56-65 and above 65 y.o. use mobile phones in order to communicate with their children and relatives.

The segmentation of respondents according to their education level shows that 43% of those with higher education, 25% - with special education, 18% -with secondary education, 11% - with incomplete higher education, 3% - with incomplete secondary education. The level of education of the respondents also reflects the use of mobile communication (Reznikova&Kukharensko2013). Respondents with higher, special secondary, incomplete higher education have more demands in their choice of mobile communication services. Before choosing a tariff they search preliminary information and think before making decision.

Respondents with secondary and incomplete secondary education mostly rely on the opinions of their friends and acquaintances in making a choice of mobile communication services.

The employment status of respondents was also defined during this survey. Respondents were grouped according to age and occupation, and the data shows that in the age group of 16-25 occupation of respondents was distributed as follows: 1% – employees, 0.5% – workers, 20% – students, 2% – self-employed, 1.2% – housewives, 2.5% – out of work.

In the 26-35 age group 6.3% of respondents are employees, 5.5% – workers, 2% – students, 6.2% – self-employed, 2.5% – housewives, 0.7% – out of work.

In the 36-45 age group 5.2% of respondents are employees, 6.2% – workers, 1% – students, 4.3% – self-employed, 1.3% – housewives, 0.2% – out of work.

In the 46-55 age group 5.5% of respondents are employees, 3.8% – workers, 2.7% – self-employed, 2.4% – housewives, 0.1% – out of work.

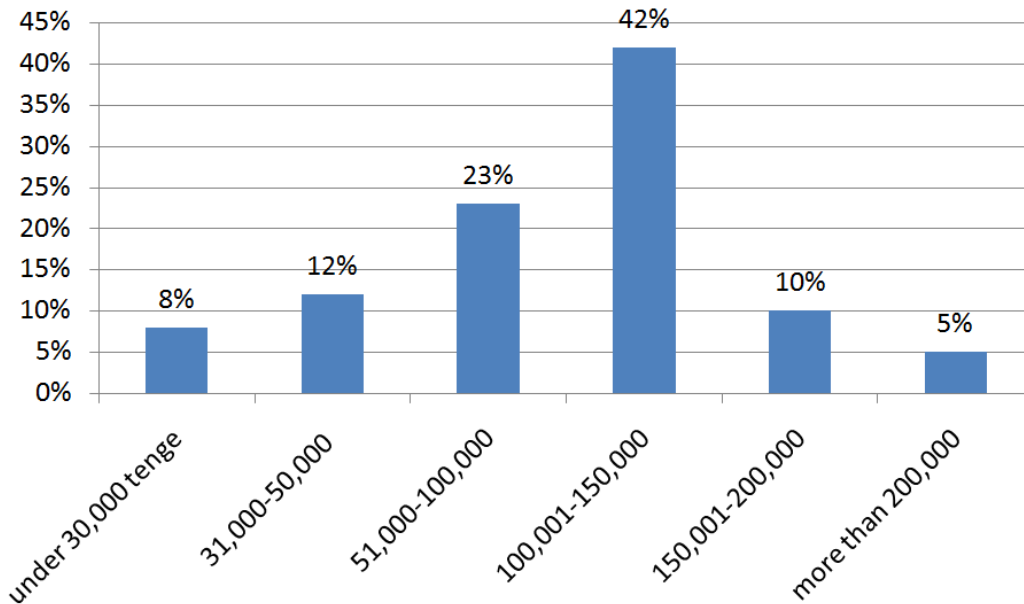
In the 56-65 age group 2% of respondents are employees, 1.5% – workers, 2.5% – self-employed, 0.5% – housewives, 2.5% – retired, 0.5% – out of work.

In the age group older than 65 years old only 1% of respondents are employees, 0.5% – workers, 0.3% – self-employed, 1.1% – housewives, 4.5% – retired.

It is very important to divide consumers into groups according to their age and employment status in order to develop tariffs for services in telecommunications, including mobile services market (Analytical Review: Mobile Service Market in Kazakhstan: Trends and Perspectives, 2013). First of all, the whole list of services they provide are divided for individuals and businesses. In this regard, for example, mobile operators can offer a range of business services for self-employed and entrepreneurs, and will be able to develop a proposal with special tariff plans for students.

A survey question concerning the marital status of respondents identified that 38% are single and that the remaining 62% of respondents are people who created a family.

The answer to the question “What is the average monthly income of your family?” can be seen in Figure 5.



Note: Developed by the author on the basis of the study

Figure 5: “What is the average monthly income of your family?” question results

According to the results of “What is the average monthly income of your family?” question, 42% of respondents have the monthly income between 100,001-150,000 tenge, 23% of respondents have average monthly income around 51,000-100,000 tenge, 12% of respondents have family income between 31,000-50,000 tenge, the average monthly income of the family between 150,001-200,000 tenge amounts 10% of respondents. 5% of respondents answered that the average monthly family income is more than 200,001 tenge, and 8% of respondents marked that their average family income is under 30,000 tenge.

Such a segmentation of mobile services users according to their income allows companies to develop special offers for their consumers.

4. DISCUSSION

According to the results of the conducted marketing research, the main factors that affect consumer activity in the cellular service and wireless Internet service sector were determined. As a result, the features of consumers’ purchase behavior in mobile communication and mobile Internet services became evident, which in its turn made opportunities to classify the behavioral types. Customers were classified by many criteria; these criteria include psychographical (consumer behavior style), socio-economic (income level, education, professional status, etc.), the criterion reflecting the sensitivity to the marketing complex elements (price, advertising, service quality), special criteria (duration and frequency of usage of a certain mobile operator, mobile Internet provider services, the size of the average monthly expenses, the motives of the selection of that very service and the level of devotion to it, etc.).

In our opinion, the most interesting segmentation is made according to customer profile, because it gives the description of the behavior models. Using the methods of segmentation, it is possible to create several unique groups according to socio-economic and behavioral characteristics. Let us describe the division of cellular communication services market determined in the result of carried out marketing research.

According to the results of the investigation, the following defined target market segments are taken into consideration.

1. Target audience 1 – teenagers. All teenagers are active users of mobile communication; it can be even said that they cannot imagine their lives without mobile phones. Mobile communication means freedom, activity, mobility, accessibility, modernity for them. Cellular services satisfy their needs of relations, communications, new acquaintances, friendship. It is very necessary for them to be intensified with the information, to be able to get the information as soon as possible. In addition, the parents require their children to be in constant contact with them, to have a possibility to communicate via cell phones in casual, non-standard cases, where no landline phones are available, hence teenagers have to be mobile from the point of view of their parents.

Table 4
Mobile telecommunication services market segmentation in the target groups and their characteristics

<i>The criteria for segmentation</i>	<i>Consumer groups</i>			
	<i>Group 1: Teenagers</i>	<i>Group 2: Retired</i>	<i>Group 3: Housewives</i>	<i>Group 4: Economically active population</i>
	<i>“Activists”</i>	<i>“Money-savers”</i>	<i>“Communicators”</i>	<i>“Rationals”</i>
1	2	3	4	5
Social structure	Pupils, students, young people with occasional earnings	People of retirement	Women unable to work and unemployed women	People with permanent job
Duration of 1 cell phone conversation	5-30 min.	3-5 min.	Would like to have long conversations but cannot afford it	5-10 min.
The main purpose of communication	Communicate with friends, connect with parents, spend time	Connect with children	Relationship with the external environment	Business contacts
Characteristics	For this group of consumers mobile technologies mean freedom, mobility, accessibility. They build relationships and make new acquaintances by means of mobile communication.	This consumer group is very price sensitive. Usually they use a mobile phone to receive calls. Tariff for them are chosen by their children and grandchildren.	Housewives do not use extra mobile services too much. Calls are mostly made for information exchange with friends..	This group of consumers uses mobile communication in business purposes.
Proportions of groups	30	5	20	45
Tariffs in usage	1500-3000	3000-5000	5000-7000	8000 and more

Note : Developed by the author on the basis of the study.

In addition, teenagers personify (“revive”) their cell phones considering it as a friend or assistant. It is possible to confirm that mobile communications became a part of today’s youth image. The first users of additional services in the market of mobile communication are also teenagers and young adults. Any innovations in the mobile communication market are very expected benefits for this social group. This group of consumers can be called “Activists”.

2. Target audience 2 – retired people. Currently, the mobile communications penetration in the domestic market exceeds one hundred per cent, that is, there is more than one SIM card per person. The results of the study show that there is no group of consumers who do not use mobile communication. The mobile phone users differ only by their usage activity. Therefore, pensioners also act as mobile phone users. That is why companies in the telecommunication market should consider them as target audience. Currently, special services and tariffs are produced for retired people. Consumers in this group are very price sensitive. Mostly they use cell phones to receive free calls. The mobile tariff for them is chosen by their children or grandchildren. Retired people can feel needed, desired by using mobile technologies, it is very important for them to keep in touch with their relatives. Besides, mobile services allow pensioners to make emergency calls in any situations (concerning health problems, theft, etc.). However, the mobile communication is associated with a source of additional expenses for this group of consumers, most of them cannot choose a proper tariff, trying to set communication costs up. Therefore, they face a psychological resistance while using their cell phones. Thus, it seemed correct to name this group of customers as “Money-savers”.
3. Target audience 3 – housewives. Housewives are one of the most important groups of consumers for mobile service providers. In spite of the increase in the number of working women in the current period of time, this group of customers is still wide. This group can be conditionally divided into two parts: housewives unable to work for certain reasons and women out of work by their own wish. Before taking into account the many differences between the two groups, their similarities will be considered. Both have a lot of free time and they solve many household issues. In terms of the use of mobile communication services, these distinctions influence the contents and scope of the use of mobile communication services. Housewives are active consumers of basic telecommunication services. They make calls in order to communicate with their friends (also housewives as they are) or to share information with their husbands while the latter are at work. From the economic point of view on the consumption of mobile communication services, they would like, if it is possible, to increase their communication expenses; however, the fact that they do not pay for themselves make it difficult to match their wishes with real costs. The 3rd group of users may be called “Communicators”.
4. Target audience 4 – the economically active population. This group does not cover all the economically active population, but only those who have a job. It is very important for mobile service operators to analyze working young specialists and top managers. For this group, mobile service is a tool to increase the value of their own labor, that is, they use the mobile services for business purposes. A cell phone for them is generally necessary for business purposes rather than for personal life. Telecommunication service providers have to keep a balance between personal and corporate life of consumers in preparation of tariffs and other options for this target group.

The analysis of mobile communication costs and non-transparent benefits which can be gained via mobile connection occurs as the main issue for this group of users. Therefore, the analysis of all the probable costs and benefits for this group of consumers is a delicate process. In terms of the use of mobile communication services, they are always searching for appropriate tariff offers and options. This consumer segment can be called “Rationals”. This group is opposite to a group of young people, because “activists” are dominated by the emotional component in the selection of mobile services, and their consumer behavior can be characterized as irrational.

According to the presented classification, it is possible to develop an algorithm of marketing strategy selection for each segment of customers. In other words, in terms of service quality reception, the service cost, advertising information perception, division of mobile services users into groups is taken into account in development of a variety of business programs, which in turn contributes to the selection of a marketing strategy.

5. CONCLUSION

In general, concluding the marketing research carried out in order to investigate the consumer behavior in mobile communication and wireless Internet services, the following important for market producers results can be named:

1. Basic factors that consumers are guided by in selecting the products telecommunication services providers offer are defined, the consumer awareness of brands represented in telecommunication services market is studied;
2. The level of consumers' satisfaction with the above-mentioned above services usage, the frequency of the use of suggested mobile communication and wireless Internet services were determined;
3. The amount and place of purchasing the telecommunication services are established;
4. The customers average spendings for mobile communication and mobile Internet, price sensitivity level for mobile communication and mobile Internet services presented in the market became clear.

These results provide an opportunity for telecommunication companies to identify their target audience profile, divide the market in segments, develop strategies of target market selection. At the same time, it becomes possible to assess the prospects of the target market segments.

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