# CULTURAL INFLUENCES ON PRE-PAY MOBILE TELECOMMUNICATIONS SERVICES USERS

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*Abstract:*
*Purpose: The purpose of this research paper is to identify the preferences of the pre-pay mobile telecommunications services young users from Romania.*
*Approach/ methodology: The analysis of the pre-pay mobile telecommunications services was made using statistical functions: descriptive statistics, t test, correlation and factor analysis.*
*Results: According to the analysis made, we could underline the habits of usage from the part of pre-pay mobile telecommunications services consumers.*
*Originality: The paper drew an objective analysis on the pre-pay mobile telecommunications services from the perspective of young consumers.*

*Keywords: Culture, Pre-pay Mobile Telecommunications Services, Mobile Telecommunications Providers, Romanian Mobile Telecommunications Users*

## 1. Introduction

Mobile telecommunications industry has an important place within an economy. Because of the limited number of consumers, the providers are focusing on the value that this long-term customers create, which is based on three elements (Meghisan, 2014, 272): client market share, client lifetime and weather he is equipped, the cost of the conducted commercial activities. However, the clients buy a functional service and, besides this "a load of symbols" (Nistorescu et al., 2014, 8) That's why, the companies began to invest in the "symbolic value" of the services. (Nistorescu et al., 2014, 8) In order to create that "symbolic value", "territorial marketing" can be an effective strategy. (Zbuchea, 2014 135)

This paper has the following hypotheses, based on the objectives of the research and the results obtained:

Hypothesis no 1. Telekom mobile telecommunications company's pre-pay offer is the most used by young consumers.

Hypothesis no 2. Telekom provider has the best offer for pre-pay mobile telecommunications services.

Hypothesis no 3. Young consumers are willing to pay 6 euro/month for pre-pay mobile telecommunications services.

Hypothesis no 4. There is a connection between the usage of mobile internet for e-mail, social networks, music, films and games.

Hypothesis no 5. Pre-pay mobile Internet traffic is mostly used for e-mail, social networks, music, movies and games.

The questionnaire based survey was made during March 2015, on a sample of 78 pre-pay mobile telecommunications users.

The results were obtained using statistical functions: descriptive statistics, t test, correlation and factor analysis. The data was analyzed with SPSS 20.0 software for Windows.

The paper is structured as follows: research methodology, results and discussions, conclusions.

## 2. Research methodology

The research sample was composed of 78 young mobile telecommunications users. The characteristics of the sample are presented below (Table 1).

**Table 1.**

**Research sample characteristics**

| | | | | | |
|---|---|---|---|---|---|
| **Gender** | | | | | |
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 17 | 21,8 | 21,8 | 21,8 |
| | Female | 61 | 78,2 | 78,2 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |
| **Age** | | | | | |
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 20 | 14 | 17,9 | 17,9 | 17,9 |
| | 21 | 28 | 35,9 | 35,9 | 53,8 |
| | 22 | 19 | 24,4 | 24,4 | 78,2 |
| | 23 | 10 | 12,8 | 12,8 | 91,0 |
| | 24 | 5 | 6,4 | 6,4 | 97,4 |
| | 25 | 1 | 1,3 | 1,3 | 98,7 |
| | 28 | 1 | 1,3 | 1,3 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |
| **Education level** | | | | | |
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | High school | 10 | 12,8 | 12,8 | 12,8 |
| | Faculty | 60 | 76,9 | 76,9 | 89,7 |
| | Master | 8 | 10,3 | 10,3 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |
| **Monthly average income** | | | | | |
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | under 250 euro | 66 | 84,6 | 84,6 | 84,6 |
| | 250,1-400 euro | 6 | 7,7 | 7,7 | 92,3 |
| | over 400 euro | 6 | 7,7 | 7,7 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |

*Source: Data analysis with SPSS 20.0 software for Windows*

The majority of the sample is made of women (78,2%). The sample is aged between 20 and 28 years old, with the following level of education: faculty (76,9%), high school (12,8%) and master (10,3%). The monthly average income of the respondents is under 250 euro (84,6%), between 250,1-400 euro (7,7%) and over 400 euro (7,7%) (Table 1). The following step of our research is to validate/ invalidate the formulated hypotheses.

Hypothesis no 1. Telekom mobile telecommunications company's pre-pay offer is the most used by young consumers.

**Table 2.**

**Mostly used pre-pay mobile telecommunication services' offer**

| Which is the provider whose pre-pay mobile telecommunications services you use? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Telekom | 66 | 84,6 | 84,6 | 84,6 |
| | Orange | 8 | 10,3 | 10,3 | 94,9 |
| | Vodafone | 4 | 5,1 | 5,1 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |

*Source: Data analysis with SPSS 20.0 software for Windows*

Hypothesis no 1 is verified. Most of the pre-pay mobile telecommunications users use the services of Telekom mobile telecommunications company (84,6%), followed by Orange (10,3%) and Vodafone (5,1%). (Table 2)

Hypothesis no 2. Telekom provider has the best offer for pre-pay mobile telecommunications services.

**Table 3.**

**The best pre-pay mobile telecommunications services' offer**

| Which provider has the best pre-pay mobile telecommunications services' offer? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Telekom | 52 | 66,7 | 66,7 | 66,7 |
| | Orange | 13 | 16,7 | 16,7 | 83,3 |
| | Vodafone | 13 | 16,7 | 16,7 | 100,0 |
| | Total | 78 | 100,0 | 100,0 | |

*Source: Data analysis with SPSS 20.0 software for Windows*

Hypothesis no 2 is validated. Telekom has the best pre-pay mobile telecommunications services offer in the opinion of young consumers (66,7%), followed by Orange (16,7%) and Vodafone (16,7%) (Table 3). However, Telekom company offers many advantages for pre-pay users, such as (Table 4).

**Table 4.**

**Pre-pay mobile telecommunications services' offer of the Telekom provider**

| Pre-pay value | Number of minutes for national/ fixed/ international calls and SMS | Number of international minutes for calls towards mobile devices | Number of minutes and SMS within Telekom network | Mobile Internet traffic |
|---|---|---|---|---|
| 10 euro | 1500 | 100 | Unlimited | 1124 MB |
| 7 euro | 1000 | 100 | unlimited | 600 MB |
| 6 euro | 1000 | 100 | unlimited | 200 MB |
| 5 euro | 200 | - | unlimited | 100 MB |

*Source: www.telekom.ro, accessed 01.03.2015*

Hypothesis no 3. Young consumers are willing to pay 6 euro/month for pre-pay mobile telecommunications services. The

respondents were asked to tell a monthly average price that they would pay for pre-pay mobile telecommunications services. The answers were analyzed with T test, in order to test the difference between the average of the sample compared to the known average of a pre-pay mobile telecommunications services' tariff (5 euro).

According to the results from the Table 5, the clients are willing to pay a price of 6,02 euro for the pre-pay mobile telecommunications services.

**Table 5.**

**One-sample statistics**

| | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Which is the average price that you are willing to pay for pre-pay mobile telecommunications services? | 78 | 6,03 | 2,101 | ,238 |

*Source: Data analysis with SPSS 20.0 software for Windows*

The results are significant ($p < 0,05$), what means that the average difference (1,026 euro) is statistically different from the average price (5 euro). (Table 6) Thus, the hypothesis no 3 is validated. Hypothesis no 4. There is a connection between the usage of mobile internet for e-mail, social networks, music, films and games.

**Table 6.**

**One-sample T test**

| | Test Value = 5 | | | | | |
|---|---|---|---|---|---|---|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Which is the average price that you are willing to pay for pre-pay mobile telecommunications services? | 4,311 | 77 | ,000 | 1,026 | ,55 | 1,50 |

*Source: Data analysis with SPSS 20.0 software for Windows*

In order to analyze the connection between two items, linear correlation was used. Pearson correlation coefficient is used to determine if two variables measured have the same variation. The results indicate a correlation between the usage of mobile Internet for e-mail and social networks (Pearson coefficient = 0,497, Sig. < 0,05). Another correlation can be observed between the usage of mobile Internet for films and music (Pearson coefficient = 0,0458, Sig. < 0,05). (Table 7).

**Table 7.**

**Correlation function**

| Correlations | | | | | | |
|---|---|---|---|---|---|---|
| | | I use mobile Internet for e-mail | I use mobile Internet for social networks | I use mobile Internet for music | I use mobile Internet for films | I use mobile Internet for games |
| I use mobile Internet for e-mail | Pearson Correlation | 1 | ,497** | -,001 | ,131 | ,043 |
| | Sig. (2-tailed) | | ,000 | ,994 | ,251 | ,706 |
| | N | 78 | 78 | 78 | 78 | 78 |
| I use mobile Internet for social networks | Pearson Correlation | ,497** | 1 | ,360** | ,052 | ,339** |
| | Sig. (2-tailed) | ,000 | | ,001 | ,649 | ,002 |
| | N | 78 | 78 | 78 | 78 | 78 |
| I use mobile Internet for music | Pearson Correlation | -,001 | ,360** | 1 | ,458** | ,374** |
| | Sig. (2-tailed) | ,994 | ,001 | | ,000 | ,001 |
| | N | 78 | 78 | 78 | 78 | 78 |
| I use mobile Internet for films | Pearson Correlation | ,131 | ,052 | ,458** | 1 | ,360** |
| | Sig. (2-tailed) | ,251 | ,649 | ,000 | | ,001 |
| | N | 78 | 78 | 78 | 78 | 78 |
| I use mobile Internet for games | Pearson Correlation | ,043 | ,339** | ,374** | ,360** | 1 |
| | Sig. (2-tailed) | ,706 | ,002 | ,001 | ,001 | |
| | N | 78 | 78 | 78 | 78 | 78 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

*Source: Data analysis with SPSS 20.0 software for Windows*

The hypothesis no 3 is invalidated. The young consumers that use mobile Internet for e-mail, also use this service for social networks and, those that use mobile Internet for watching films, also use it for music. Hypothesis no 5. Pre-pay mobile Internet traffic is mostly used for e-mail, social networks, music, movies and games.

The factors taken into consideration in analyzing this hypothesis are: e-mail, social networks, music, films, games. KMO and Bartlett's test have the value of 0,652, which means that the results can be accepted. (Table 8).

**Table 8.**

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,652 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 33,096 |
| | df | 3 |
| | Sig. | ,000 |

*Source: Data analysis with SPSS 20.0 software for Windows*

According to the data from the Table 9, the variation can be explained in a percentage of 59,888.

**Table 9.**

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 1,797 | 59,888 | 59,888 | 1,797 | 59,888 | 59,888 |
| 2 | ,662 | 22,073 | 81,961 | | | |
| 3 | ,541 | 18,039 | 100,000 | | | |
| Extraction Method: Principal Component Analysis. | | | | | | |

*Source: Data analysis with SPSS 20.0 software for Windows*

As we can observe from the Table 10, young users prefer to use mobile Internet for listening to music, watching films and playing games.

**Table 10.**

**Component Matrix**

| **Component Matrix[a]** | |
|---|---|
| | Component |
| | 1 |
| I use mobile Internet for music | ,798 |
| I use mobile Internet for films | ,790 |
| I use mobile Internet for games | ,732 |
| Extraction Method: Principal Component Analysis. | |
| a. 1 components extracted. | |

*Source: Data analysis with SPSS 20.0 software for Windows*

The value of Cronbach's Alpha of 0,664 presents a viability of acceptable internal coherence. (Table 11)Hypothesis no 5 is not validated. Pre-pay mobile Internet traffic is mostly used for music, movies and games.

**Table 11.**

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| ,664 | 3 |

*Source: Data analysis with SPSS 20.0 software for Windows*

## 3. Results and discussions

Most of the pre-pay mobile telecommunications users use the services of Telekom mobile telecommunications company (84,6%), followed by Orange (10,3%) and Vodafone (5,1%).

Telekom has the best pre-pay mobile telecommunications services offer in the opinion of young consumers (66,7%), followed by Orange (16,7%) and Vodafone (16,7%).

The young consumers that use mobile Internet for e-mail, also use this service for social networks and, those that use mobile Internet for watching films, also use it for music.

Pre-pay mobile Internet traffic is mostly used for music, movies and games.

## 4. Conclusions

This study is just a starting point in trying to identify the main preferences of pre-pay mobile telecommunications services users.

The research results can be of interest for mobile telecommunications services providers that are present on the Romanian market.

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## REFERENCES

Carricano, Manu and Fanny Poujol (2008), *Analyse de donnees avec SPSS*, Paris: Pearson Publishing House.

Meghisan, Flaviu (2014), *Ethics and Commercial Communication,* Management&Marketing, volume XII, issue 2/2014.

Meghisan, Gheorghe and Tudor, Nistorescu (2006), *Bazele marketingului,* Craiova: Sitech Publiching House.

Nistorescu, Tudor, Catalin Mihail, Barbu and Claudia Cristina Ploscaru (2014), *Brand- Product Interdependence,* Management&Marketing, volume XII, issue12/2014.

Zbuchea, Alexandra (2014), *Territorial marketing based on cultural heritage,*Management&Marketing, volume XII, issue 2/2014.

*** www.orange.ro, accessed 01.03.2015;

*** www.telekom.ro, accessed 01.03.2015;

*** www.vodafone.ro, accessed 01.03.2015;