
**A STUDY OF CONSUMER BEHAVIOUR OF ACTIVE USAGE OF INSTANT
MESSAGING APPLICATIONS**

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ABSTRACT

The number of active instant messaging users shows the success of the medium and in the short period, it has been available to the public. Especially among teenagers, instant messaging has become one of the most important communication means. The goal of the research is to find out, what are the reasons for using instant messaging nowadays and how the user of instant messaging influence the consumer behavior, communication habits and social inclusion. There has been used a survey method with 250 valid responses from Slovak active users of instant messaging. The survey has been focused on the generation Y because children born during the 1980s and early 1990s are supposed to have constant access to technology. The survey has been analyzed using structural equation modeling. Nowadays, the instant messaging is not used only for „fun“, but becomes a serious communication medium. This seriousness should be taken into account and change thinking of using instant messaging. The paper describes how using instant messaging influence this generation and may have an impact on society.

Keywords: Instant messaging, consumer behavior, social inclusion, generation Y

INTRODUCTION

The recent rise of Instant Messaging systems as a centerpiece of online communication has brought with it many questions about the role this new medium will play in the communicative sphere Leetaru (2008), Madlenak et al. (2015). Instant Messaging is often employed in a highly-multitasking environment. Shiu and Lenhart (2004) examined, that twenty percent of researched IM users do something else off their computer, such as talk on the phone or watch television virtually every time they are Instant Messaging, while 30% multitask at least some of the time.

Davey et al. (2008) evaluated that in its text-only form, instant messaging is “betwixt and between“ other forms of communication, “represent(ing) a new liminality in communication because it resides inside the cracks that separate and permeate written and oral forms of communication. The medium lacs even a common terminology as users describe themselves as “chatting”. Paradoxically, it is also “an intrinsically visual medium, something that is antithetical to our traditional conception of oral (and aural) communication”. Instant messaging is often employed in a highly-multitask environment Kolarovszki (2016).

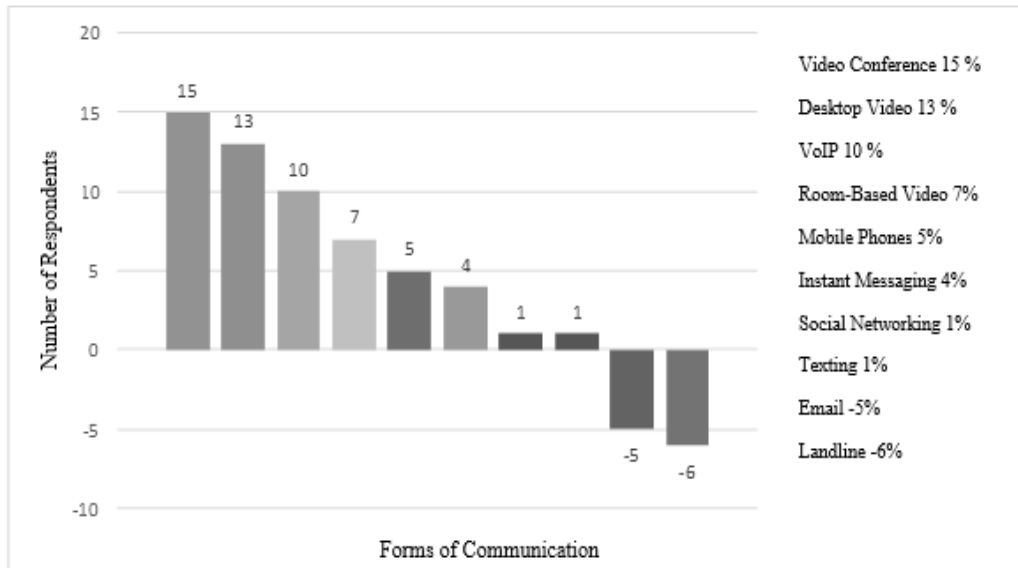


Figure 1 The percent change in expected usage from 2009 to 2011 in percentage.

Source: zBoost. [online]. Available at: <https://zboostworkforce.wordpress.com/tag/workplace/>

Figure 1 describes the most used substitute goods of IM and percentage intensity of usage as well. Research shows, that email and landline use, the dominant communication tools for the past two decades, declines with the increasing mobile phones, computers and social networks Stalmasekova et al. (2017).

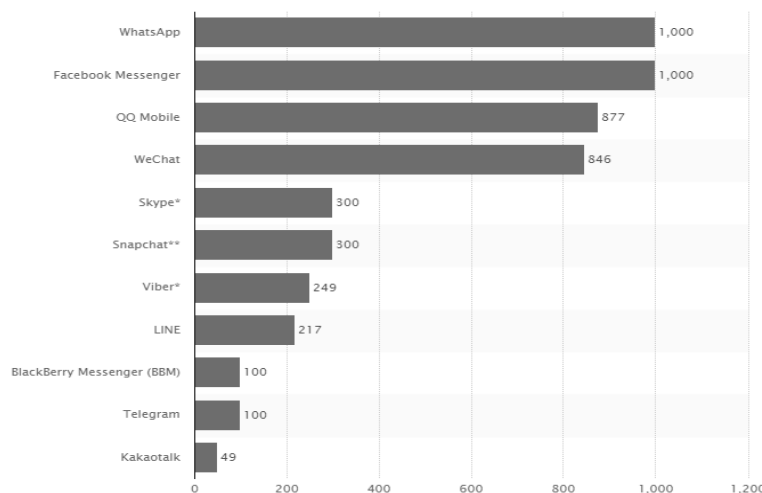


Figure 2 Common used communication platforms worldwide (Source: Vivid maps. [online]. Available at: <http://www.vividmaps.com/2016/06/the-most-popular-messaging-app-every.html>)

Figure 2 presents instant messaging usage statistics from the January 2017, that point to the most popular instant messaging applications. The individual applications are ranked according to the number of active users. Instant messaging applications of WhatsApp and Facebook messenger are equal to 1 billion users. With 877 million users follows the Chinese application QQ Mobile, followed by Chinese Wechat communication platform with 846 million users. More than 500 million users have Skype and Snapchat.

From the territorial point of view, WhatsApp is the most widely used in many countries of the world. Namely in the countries of South America, most of Asia, Russia, South Africa, Oceania, and Mexico. Followed by the Facebook messenger application, which is mainly used by residents of the USA, Canada, Greenland, Iceland and in European countries like France, Poland, Sweden, and Norway. In Australia and New Zealand, also wins Facebook messenger. In the African continent, the Algerian and Central African States, as well as the island of Madagascar is WhatsApp most used. According to the statistics, Viber is the most used in Slovakia, Ukraine, Belarus in Cyprus and even in some African countries such as Libya, Ethiopia, and Mali. The line is the most used in Japan, Turkmenistan, and Thailand. Wechat application is used in the largest number only in China. The telegram, the Russian application, is not the most used in Russia and Russian-speaking countries, but surprisingly in the countries of Iran and Uzbekistan Vitenko (2016).

Figure 3 describes the usage of instant messages platforms according to the age. Instant messaging is mainly used by the users in the age of 16-24 and 25-34.

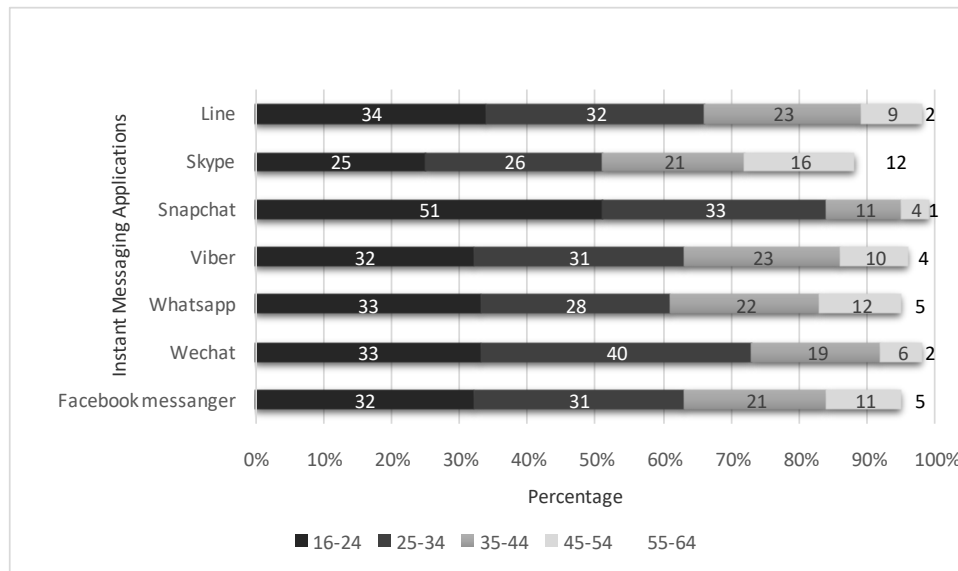


Figure 3 Age group of instant messaging users (Source: Smart Insights. [online]. [cit. 2017-04-05]. Available at: <<http://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research>>

METHODOLOGY

The object of the research is the generation Y and the university students as well. Generation Y grew up with IT technology. Norum (2003) defined this generation as generation characterized by high rate of internet adoption and considered as the first high-tech generation.

The reason why the authors have focused on the generation mentioned above is, that the generation Y follows the previous secondary research, which found, that instant messaging is mostly used by the internet users aged 16-35 years. The research plan describes table 1.

Table 1: Market research plan

Type of market research	Type of research: Qualitative and Quantitative research Type of data – primary data Source of data – target group answers, (generation Y in the Slovak Republic)									
Method	Interviewing									
Data collection technique	Online survey, internet survey									
Sample size	A proportion within a given population is higher than 100 000 respondents, in 2015 it was 1 476 399. For this reason we have found the calculus: $n \geq t_{1-\frac{\alpha}{2}}^2 * \frac{\sigma^2}{\Delta^2}, \quad (3)$ $\sigma = \sqrt{p * (1 - p)}, \quad (4)$									
	Confidence Level [%]	50,0	68,3	75,0	86,6	90,0	95,0	95,5	97,5	99,0
	Confidence Interval (t_{1-α/2})	0,67	1,00	1,15	1,50	1,64	1,96	2,00	2,24	2,58
	where: n – minimum sample size t _{1-α/2} – confidence interval σ ² – level of confidence according to the standard normal distribution p – estimated proportion of the population that presents the characteristic Δ – maximum tolerated margin of error We need a 90% level of confidence and tolerated margin of error 10%. The estimated proportion of the population that presents the characteristic is unknown, we use p=0,5 $n \geq 1,64^2 * \frac{0,5^2}{0,1^2} = 67,24 = 68 \text{ respondents}$ $\sigma = \sqrt{0,5 * (1 - 0,5)} = 0,25$									

RELUSTS

Demand for instant messaging is influenced by the price, the price of substitute goods, the price of complementary goods, the consumer income, consumer preferences, changes in prices of related good, consumer’s expectations, consumer age and consumer demographic location. A specific determinant influencing the demand for instant messaging generation Y is also the type of instant messaging applications used by friends and acquaintances. Based on a research problem, several research objectives have been set:

- Objective 1: Identify the frequency of instant messaging users of respondents from the generation Y.
- Objective 2: Identity which instant messaging applications are most used by the respondents.
- Objective 3: Identify the main reason for instant messaging use by respondents.
- Objective 4: Find out if students use instant messaging to share knowledge and learning materials among classmates.
- Objective 5: Study the reason that may negatively or positively affect interpersonal relationships and behavior of respondents when using instant messaging.

The extent of use of instant messaging applications by respondents describes table 1. The most used application is a Facebook messenger, the least used application is Hangouts. More than 70% of respondents use instant messaging each day. Of all respondents from the Y generation, 98% of respondents use instant messaging to share knowledge and learning materials among classmates. Respondents use IM tools to share learning materials either in the form of different text and table files or images.

IM Applications	Number of Respondents	Relative number of Respondents	Graphic evaluation
Facebook messenger	204	46 %	
Viber	75	17 %	
Skype	33	7 %	
WhatsApp	60	13 %	
Snapchat	54	13 %	
Hangouts	18	4 %	

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Table 1 The most used applications of IM by respondents

The research shows, that the main reason for using instant messaging is the price. 32% of respondents use instant messaging primarily for free communication. 28% of respondents use instant messaging for the real-time communication and 20% of respondents have identified a group conversation as the main reason for using instant messaging, 12% of respondents use instant messaging for sharing photos, images or files and data through instant messaging applications and finally 8% respondents use instant messaging for the reason of free or cheap voice or video calls.

Many authors have argued that when communicating through electronic communications, including instant messaging, people lose their ability to express themselves, to establish social connections and to communicate in general. Therefore, research was also aimed at finding the respondents' opinion on the negative, respectively. The positive impact of IM on interpersonal relationships.

Research confirms these statements. The most influence the instant messaging the language and grammar, when in text messages, generation y often use nonstandard written language. The research has shown, that this nonstandard written language has a negative effect on respondents written and spoken language abilities. Research also shown that text messages do not lead to an improvement in respondent metalinguistic awareness and heightened sensitivity to language.

Surprisingly respondents themselves have identified communication via instant messaging as a communication that has a negative impact on interpersonal relationships, expression and social inclusion in this age group. The respondent opinion presents table 2.

Table 2 The impact of instant messaging on interpersonal relationships among Y-generation respondents.

Impact	Number of respondents	Relative number of respondents
Positive effect	111	25 %
Negative effect	147	33 %
Positive and negative effect	186	42 %
Sum	444	100 %

CONCLUSION AND DISCUSSION

The main reason for the use of instant messaging by respondents of generation Y is the possibility of free communication and therefore the price. Instant messaging offers group chat, photo and file sharing, video or audio calls, and more

The most used applications are the Facebook messenger. Despite the fact that, on the one hand, instant messaging communication strengthens the relationship of respondents with their friends and family, most respondents have expressed a negative attitude towards the issue of interpersonal relationships and social inclusion. The main target communication groups of Y generation respondents are friends and family. Through this communication, it is possible to overcome the distance barriers that are found among instant messaging users. Both the negative and the positive aspects that respondents feel are part of the instant messaging. As mentioned above, the decisive factor for Y generation, which influences the decision-making of instant messaging applications in Slovakia, is, in particular, the price and virtual communication.

Generation Y personally feel that instant messaging assists both in their learning, virtually “meeting” new people and communicate in real time. Primary research shows that real-time communication with instant messaging applications is widespread.

As research shows, that the main reasons for the demand for instant messaging applications are efficiency, innovation, compatibility, and speed, as well as the ability to use a variety of tools in one application. As services based on artificial intelligence improve, instant messaging become more used. The app economy and education grow quickly and instant messaging even though negative influence becomes tolerated and utilized a form of communication. Instant messaging become a mean of community building in an e-learning environment.

Many social changes connected to social inclusion and instant messaging reflects contempt of cultural heritage and despite the surplus of information, it becomes unadulterated and un-self-critical. Further research will be more focused on social behavioral disorders, increasing aggressiveness, and demoralization.

In connection with modern technologies, the author also perceives social behavioral disorders, increasing demoralizing. Many experts are watching the “Matthew’s effect, according to which those who get the reading literacy skills of later reading and learning in a child, are faster than those who did not. They have more vocabulary, which means they do not shrink in more complicated texts and can better recognize the storytelling process and are able of better argument formulation. All these are the abilities that cannot be developed with the other methodology so efficiently.

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REFERENCES

Leetaru, K. (2008). Instant Messaging as a Hypermedium in the Making. In S. Kelsey, & K. St.Amant (Eds.), *Handbook of Research on Computer Mediated Communication* pp. 868-881.

Madlenak, R., Madlenakova, L., Kianickova, E. (2015) Designing a social network to support e-learning activities at the Department of communications, University of Zilina, International Educational Technology Conference, Chicago, 176 (1), 176, 103-110.

Shiu, E., Lenhart, A., (2004) How Americans use instant messaging, Pew Internet and American Life Project Report, United States of America

Davey, T., Envall, A., Gerner, M., Mahomes, T., Moroe, M., Nowak, J., et al. (2008) Instant messaging: Functions of a new communicative tool. Course paper for Anthropology 427: Doing Things With Words, France

Kolarovszki, P., Tengler, J., Majercakova, M. (2016) The new model of customer segmentation in postal enterprises, 3rd International Conference on Few Challenges in Management and Organization: Organization and Leadership, Arab Emirates, 230 (1), 121-127

Vitenko, T., Drozdiel, P., Madlenak, R. (2016) Comprehensive Approach for Educational Process, 8th International Conference on Education and New Learning Technologies, Spain, 9193-9197

Norum, P.S. (2003) Examination of generational differences in household apparel expenditures. In *Family and Consumer Science Research Journal*, 32 (1), 52-75

Stalmasekova N., Corejová, T., Genzorová, T. (2017) The impact of using the digital environment in transport In *Procedia Engineering*, 192, (1) online, s. 231-236. – Available at: <http://www.sciencedirect.com/science/article/pii/S1877705817325869>