Students' Perception of the Importance of Using Facebook for Academic Purposes

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Abstract

Facebook as the most popular social network, has found great application among students, who, in addition to entertainment and communication use it for the exchange of relevant information regarding their study. Considering Facebook is the most used social network among the student population, the aims of this research were to analyse the key factors that motivate students to use Facebook, identify reasons for using Facebook as well as the potential of its use for academic purposes. The basic research instrument is a structured questionnaire. The survey was conducted in September 2016 at the Belgrade Banking Academy for the purposes of this study. There were 159 participants – students from all years of primary and master studies. The results were analysed using the following methods: t-test, correlation coefficient and confirmatory factor analysis. The obtained results show that students mostly use Facebook for social purposes. Regarding the use for educational purposes, Facebook is the most respected platform for exchange of materials and information from lectures, communication with colleagues and creating academic groups. In recent years, a growing popularity of social networks has been observed among students, a potential to become an important source of support for educational communications and cooperation with the faculty.

Key words: *educational use; Facebook; social networks; student; tertiary education.*

Introduction

The phenomenon of social media introduced significant changes in the ways of communication and interaction as well as in learning methods. The use of social media

in the university classroom is growing in popularity and is transforming learning and teaching in significant ways (Foster, Farshid, Juena, & Wallström, 2016). Social networks offer students more possibilities to communicate, learn, discuss, exchange information, reflect, judge and rate downloaded study materials, give feedback and acquire new knowledge through the Internet (Volungevičienė, Teresevičienė, & Mejerytė-Narkevičienė, 2015).

Today students observe social media not only as a means of networking but also for educational purposes. Research studies on social media and educational institutions are trying to answer a series of questions – how social media are used in education, what are the goals of social media, what are the experiences, what are the barriers for their effective use and what is the future of social media in education (Hebrang Grgić & Mučnjak, 2015). The use of social networks provides an important basis for social, emotional and cognitive development of young people who spend most of their time on the Internet (Hayes, Van Stolk-Cooke, & Muench, 2015). Sociologists decided to define and acknowledge the use of Facebook by younger generations (Dong, 2008) in order to comprehend how they communicate online, connect and identify themselves as members of the online community. Due to the ever-growing user community of Facebook, educational researchers and practitioners believe that Facebook could be used for delivering educational content and act as a learning tool (Buragga, Dhir, & Boreqqah, 2013).

Facebook was created in early 2004 by three students at Harvard as a project to link students within the campus, and today is one of the most popular social networks, particularly among students. In the beginning, the purpose of Facebook was to enhance communication between individuals; however, this phenomenon has changed the way of communication of institutions as well. Due to the rapid growth in popularity and global presence in the daily life of students, higher education institutions have recognized the potential opportunities and taken advantage of Facebook in order to improve their own business. Facebook has become a kind of multifunctional social service thanks to its broad platform, which offers users a variety of useful tools for different purposes. By using the potential advantages of this tool, students have easier distribution of educational materials and connections with colleagues and professors.

Numerous studies have dealt with Facebook as the most popular social network from various aspects (Hayes, Van Stolk-Cooke, & Muench, 2015). In addition to social purposes, Facebook is considerably used for the purposes of daily entertainment and getting information: playing games, watching videos, expressing opinion, sharing files, tracking events in someone's social circles, dating, etc. (Kabilan, Ahmad, & Abidin, 2010; Sharma, Joshi, & Sharma, 2016). Although it was initially created for social use, according to some studies (Bosch 2009; Mazman & Usluel, 2010; Sharma, Joshi, & Sharma, 2016), Facebook is also successfully used for educational purposes. According to the research conducted by McCarthy (2012), students consider Facebook an important tool for studying that improves the development of academic connections

and promotes academic criticism, discussions and networking. The researchers confirmed that the systems of social networks should be part of teaching because they support academic communication, interaction and relationships (Bosch, 2009).

According to the study by Latib, Bolong, and Ghazal (2014), the purpose of using Facebook is divided into seven functional areas: the creation of personal identity; distribution of content; communication with friends; creating personal reputation; the creation of groups in which there are people with similar interests; constant monitoring of new information and the development of personal, friendly and business relations. Facebook, and other social networks, provide the ability to create and monitor an online group whose members have the same interests. University professors often create groups for their course and post materials from lectures and important services related to the exam. The content is easily distributed and available among the members of the group, which is a place where students leave their comments, suggestions and opinions. Students will thus establish and maintain contact with colleagues and professors, and professors will try to help students improve their learning process. It was revealed that most of the students who refer to social networking sites for education, use social networking sites to carry out group projects and assignments, especially the sites which have been found to be very useful in conducting group work (Zanamwe, Rupert, & Kufandirimbwa, 2013). Therefore, the use of social media for educational purposes is recommended to overcome the problems, such as feeling of isolation from the group, which often occurs in the learning process and has a negative impact on learning, and the "inability to express oneself publicly" because of shyness (Ozturk, 2015).

The cooperation between teachers and students on Facebook leads to a higher motivation for learning and greater participation of students through creative activities, which contributes to better results and spreading of a positive atmosphere outside the classroom. Facebook provides an opportunity to improve communication outside the classroom. This communication is defined as "teacher-student communication, formed outside the classroom in order to meet the needs of the students" (Jones, 2008). Students usually check their Facebook accounts more frequently than online lectures, even when such software has a platform for chat and discussions for synchronous and asynchronous online discussions (Bosch, 2009).

Universities as educational institutions are concerned with the growing lack of interest of university students for the traditional way of learning (Manasijević, Živković, Arsić, & Milošević, 2016). Universities, as well as educational institutions, are concerned because of the growth of disinterest by university students for the traditional way of learning, which questions the teaching experience of the teacher applying it. Professors need to find a more efficient way of education, which will involve students to participate in lectures more actively and with more motivation. Facebook provides a social environment, enabling students to collaborate with teachers and peers, and facilitating the acquisition of knowledge (Çoklar, 2012). Facebook

provides a social environment, enabling the student to interact with instructors and peers and facilitates the process of knowledge construction. The posting of different content on a social network can be helpful because students can easily access it and use learning materials, with the aim to improve academic excellence at the individual level (Kabilan, Ahmad, & Abidin, 2010). Sharing resources implies sharing materials which consist of activities such as exchanging multimedia resources, videos, audio materials, animated videos, resources and documents (Manasijević, Živković, Arsić, & Milošević, 2016).

Methodology

The trend of using Facebook in higher education is relatively new, and studies tend to reveal its acceptance and use in education. A survey was conducted at the Belgrade Banking Academy for the purposes of this study. The basic research instrument was a structured questionnaire consisting of two parts.

Table 1

Descriptive statistics and demographic profiles of respondents

Item		Frequency	Percent
Gender	Male	42	26.4
	Female	117	73.6
Age	18–20	43	27.0
	21–25	103	64.8
	26–30	6	3.8
	30+	7	4.4
Level of studies	Year 1 undergraduate	57	35.8
	Year 2 undergraduate	25	15.7
	Year 3 undergraduate	20	12.6
	Year 1 MS	42	26.4
	Year 2 MS	15	9.4
How long have you had a Facebook?	1–3 years	16	10.1
	3–5 years	50	31.4
	5+ years	93	58.5
How often do you access Facebook?	Several times during a day	119	74.8
	Once a day	19	11.9
	A few times a week	11	6.9
	Once a week	4	2.5
	A few times a month	4	2.5
	Once a month	1	0.6
	Did not reply	1	0.6

The first part of the questionnaire relates to the control variables (gender structure of students, age, level and year of study, their Grade Point Average - GPA, the question

whether they use social networks, frequency of Facebook use). The second part of the questionnaire consists of 26 questions designed in such a way that with the use of Likert scales they examine students' attitudes regarding acceptance and purpose of Facebook use. Special attention was paid to students' attitudes about using Facebook for educational purposes. A total of 167 students attending all years of undergraduate and master's degree studies participated in the survey which took place in May 2016. Out of this number, only surveys of 159 (95.2 %) students who use the social network Facebook were considered and further analysed. Data were collected at the Belgrade Banking Academy in Belgrade (Serbia).

Out of the 159 students retained in the analysis, 26.4 % were men and there was a significantly higher percentage of women – 73.6 %. Most of the students (64.8 %) were between 21–25 years of age. Regarding the level of studies, 102 students attend undergraduate studies, whereas 57 of them attend the master's studies. A high percentage of students use social networks (95.2 %) and among them 98.8 % use Facebook. When it comes to how often they access Facebook, 74.8 % of students access it several times a day. The average GPA of the surveyed students is 8.65, and the median is 8.8. Half of the students surveyed have GPA 8.8, and for the other half it is above 8.8.

Results

The results of numerous studies have shown the importance of using social networks in various fields while the scope of the research is focused on higher education. Students and staff in higher education institutions have seen a significant advantage from using social networks such as Facebook. The second part of the questionnaire consists of questions that are intended to test students' attitudes on the adoption and purpose of use, and the focus of this research is to examine the use of Facebook for academic purposes. Table 2 shows calculated descriptive statistical dimensions for the second part of the questionnaire. According to the obtained results, there are four main factors of the dimension Adoption of Facebook: *Perceived Usefulness – PU, Perceived Usage Access – PUA, Influence of Social Environment – ISE* and *Social Affiliation – SA*. Purposes of Facebook usage consist of three main factors defined as *Social Relations – SR, Daily Activities – DA* and *Educational Usage – EU*. The assumed structure of the four-factor model Adoption of Facebook and three-factor Purposes of Facebook usage have been examined on the existing sample of students by Confirmatory Factor Analysis – CFA.

In the case of the factor *Perceived Usefulness* of the first model Adoption of Facebook, the students give the greatest significance to the item "Facebook allows me to communicate with more people in a short period of time" (M=4.21, SD=0.87). For the factor *Perceived Usage Access*, the item "Access to Facebook and use of its content is simple" (M=4.50, SD=0.66) has the greatest average value; also, this item has the greatest average value of all items in the first model. All items that are part

Table 2

Descriptive statistics of items related to the Adoption of Facebook and Purposes of Facebook usage (n = 159, no missing values)

	Mean	Range	Median	Std. deviation	Skewness	Kurtosis
Adoption of Facebook						
PU1 Facebook allows me to communicate with more people in a short period of time.	4.21	4	4	.87	-1.20	4.61
PU2 Facebook allows me to easily share certain information about myself.	3.64	4	4	1.13	-.61	2.62
PU3 Facebook makes it easier to establish and maintain contact with friends.	3.94	4	4	1.10	-.86	2.73
PU4 Facebook allows me to meet new people.	3.25	3	4	1.26	-.28	2.05
PU5 Generally, the use of Facebook enriches my personal relationships.	2.66	3	4	1.14	.20	2.26
PUA1 Access to Facebook and use of its content is simple.	4.50	5	3	.66	-1.37	5.21
PUA2 Until now, I have not had problems with using Facebook.	3.97	4	4	1.09	-.98	3.24
PUA3 Facebook provides the right technical support if there is a problem with its use.	3.42	3	4	1.01	-.48	3.12
ISE1 I use Facebook because my peers use it, too.	2.66	2	4	1.29	.19	1.80
ISE2 I use Facebook on the recommendation of a friend.	2.30	2	4	1.17	.60	2.33
ISE3 I select Facebook content which is popular among my friends.	2.16	2	4	1.14	.86	3.00
SA1 Facebook allows me to create and access a group with which I have the same interests and needs.	3.75	4	4	1.07	-.85	3.30
SA2 I use Facebook to work with other team members in the group.	3.41	4	4	1.18	-.61	2.53
Purposes of Facebook usage						
SR1 I use Facebook to find and communicate with friends with whom I have not been in touch for a while.	3.79	4	4	1.14	-.98	3.27
SR2 I use Facebook to make new friends.	4.22	4	4	.97	-1.49	5.06
SR3 I use Facebook to communicate with my friends.	3.96	4	4	1.05	-1.16	3.92
SR4 I use Facebook to share information with my friends.	3.87	4	4	.97	-1.04	3.87

	Mean	Range	Median	Std. deviation	Skewness	Kurtosis
DA1 I use Facebook to keep up with my Facebook friends.	3.43	4	4	1.19	-.56	2.49
DA2 I use Facebook to follow innovations.	3.50	4	4	1.10	-.58	2.55
EU1 The use of Facebook allows me to easily and quickly communicate with colleagues in connection with the items, group projects, recommendations and experiences.	3.75	4	4	1.04	-1.09	4.04
EU2 The use of Facebook allows me to communicate with teachers on all matters relevant to the exam, knowledge acquisition, development project and homework.	3.26	4	4	1.33	-.30	1.86
EU3 I use Facebook to transfer content and information, and to receive information about lectures, classes, exams.	3.39	4	4	1.26	-.50	2.21
EU4 I use Facebook as a means to increase the effect of the lectures.	2.90	3	4	1.25	.06	2.02
EU5 The use of Facebook encourages the creation of academic groups of people with common interests and needs.	3.30	3	4	1.21	-.30	2.22
EU6 Facebook encourages students to work in teams.	3.07	3	4	1.14	-.09	2.22
EU7 Facebook provides the exchange of different materials from lectures or multimedia content (videos, audio materials, documents, etc.) which are important for learning.	3.70	4	4	1.13	-.68	2.67

of the factor *Influence of Social Environment*, "I use Facebook because my peers use it, too" (M=2.66, SD=1.29), "I use Facebook on the recommendation of a friend" (M=2.30, SD=1.17), and "I select Facebook content which is popular among my friends" (M=2.16, SD=1.14) have considerably low average values and they are the lowest for the whole dimension (model) Adoption of Facebook. These results show that the impact of environment on the students to adopt Facebook is relatively low because all of the items related to the impact of the environment had relatively low mean values (values less than 3). The results show that students consider Facebook as an important means of social networking because the items of the factor that describe this dimension (*Social Affiliation*) have a high score (mean value above 3).

In the case of Purposes of Facebook Usage, the highest results are obtained for the factor *Social Relations*: "I use Facebook to make new friends" (M=4.22, SD=0.97), "I use Facebook to communicate with my friends" (M=3.96, SD=1.05), "I use Facebook

to share information with my friends" (M=3.87, SD=0.97), "I use Facebook to find and communicate with friends with whom I have not been in touch for a while" (M=3.79, SD=1.14).

All the items referring to the usage of Facebook for educational purposes have mean values larger than 3 except the item "I use Facebook as a means to increase the effect of the lectures" (M=2.90, SD=1.25). These results show that students understand the importance of Facebook for educational purposes, but it is still being used for the development of social relations. Also, the results show that the main advantage of using Facebook for educational purposes is easy and fast communication between students regarding the test assignments, group projects and exchange of different materials from lectures or multimedia content (videos, audio materials, documents, etc.) which are important for learning.

The following results and discussion will refer to the analysis of Adoption and Purposes of Facebook Usage by using statistical modelling. Two theoretical factor models, Adoption and Purposes of Facebook Usage are examined by Confirmatory Factor Analysis - CFA for the existing sample.

Discussion
CFA Model for Adoption of Facebook

The results of the research show that *Perceived Usefulness*, *Perceived Usage Access*, the *Influence of Environmental* and *Social Affiliations* have a significant positive impact on the adoption of Facebook. The previously conducted studies (King & He, 2006; Mazman & Usluel, 2010; Ngai, Poon, & Chan, 2007; Van Raaij & Schepers, 2008) show that perceived usefulness was the most important factor in predicting the adoption of Facebook. Davis (1989) developed the Technology Acceptance Model (TAM), which points out that the "perceived usefulness" and "perceived usage access" are the primary incentives for the adoption and use of new technologies. Davis (1989, p. 320) defines perceived usefulness as "the degree to which individuals believe that using a specific system will improve performance", while the perceived usage access refers to "the degree to which an individual believes that using a particular system would be free of physical and mental effort". This study confirmed that the perceived usefulness is the most important factor for the acceptance and use of Facebook.

In this paper, the factor *Perceived Usefulness* is assessed by five items using a Likert scale PU1 – PU5: "Facebook allows me to communicate with more people in a short period of time" (PU1), "Facebook allows me to easily share certain information about myself" (PU2), "Facebook makes it easier to establish and maintain contact with friends" (PU3), "Facebook allows me to meet new people" (PU4), "Generally, the use of Facebook enriches my personal relationships" (PU5).

Perceived Access to use as a latent variable is represented by three tested variables: "Access to Facebook and use of its content is simple" (PUA1), "Until now I have not had problems with using Facebook" (PUA2), "Facebook provides the right technical support if there is a problem with its use" (PUA3).

The *Influence of Environment* on the adoption of Facebook is explained by the following items: "I use Facebook because my peers use it, too" (ISE1), "I use Facebook on the recommendation of a friend" (ISE2) and "I select Facebook content which is popular among my friends" (ISE3). The fourth factor – *Social Affiliation* is marked by the following indicators SA1 ("Facebook allows me to create and access a group with which I have the same interests and needs") and SA2 ("I use Facebook to work with other team members in the group"). Table 3 shows the correlation matrix with calculated correlation coefficients between the items of the first model.

For this assumed model (Figure 1), all the factor loadings are determined or estimated; the item is allowed to be associated with one factor (without overlapping); and factors may be correlated (equivalent to oblique rotation in exploratory factor analysis). The assumed model for *Adoption of Facebook* is examined by Confirmatory Factor Analysis - CFA on the basis of the data collected from 159 students from the Belgrade Banking Academy. There were no missing replies.

Table 3

Correlations between observed variables for CFA Adoption of Facebook model

Observed variables	PU1	PU2	PU3	PU4	PU5	PUA1	PUA2	PUA3	ISE1	ISE2	ISE3	SA1	SA2
PU1	1	/	/	/	/	/	/	/	/	/	/	/	/
PU2	0.511	1	/	/	/	/	/	/	/	/	/	/	/
PU3	0.512	0.393	1	/	/	/	/	/	/	/	/	/	/
PU4	0.378	0.395	0.440	1	/	/	/	/	/	/	/	/	/
PU5	0.209	0.353	0.368	0.440	1	/	/	/	/	/	/	/	/
PUA1	0.067	0.154	0.060	-0.052	0.082	1	/	/	/	/	/	/	/
PUA2	-0.053	-0.102	-0.055	-0.063	-0.142	0.241	1	/	/	/	/	/	/
PUA3	-0.002	0.189	0.064	0.135	0.109	0.120	0.289	1	/	/	/	/	/
ISE1	0.144	0.197	0.127	0.154	0.223	0.013	-0.057	0.106	1	/	/	/	/
ISE2	0.173	0.111	0.113	0.163	0.254	0.009	0.027	0.133	0.572	1	/	/	/
ISE3	0.048	-0.028	0.044	-0.002	0.283	-0.091	-0.123	-0.055	0.407	0.518	1	/	/
SA1	0.310	0.295	0.281	0.145	0.189	0.114	-0.066	0.110	0.093	0.263	0.132	1	/
SA2	0.292	0.287	0.284	0.182	0.233	-0.067	-0.148	0.046	0.167	0.292	0.167	0.448	1

In the first step, the assumed model is estimated (Figure 1). In order to describe the quality of fit of the model, more parameters are shown as well as their thresholds. Some of the most suitable used indices are as follows: Comparative Fit Index - CFI, Normed Fit Index - NFI, Non-Normed Fit Index - NNFI, also known as TLI index, and Standardized Root Mean Square Residual - SRMR.

The values of the above-described indices were as follows: χ^2(N =159, df=59) = 97.713, p < 0.01, CFI = 0.908, NFI = 0.905, TLI = 0.878, SRMR = 0.072, RMSEA= 0.061. The values of NFI and CFI indices are larger than 0.9, whereas the index TLI has the value near 0.9. The value for SRMR is below 0.08. These values show good fit of the model. This paper uses non-standard coefficients because all the items have a five-point Likert item.
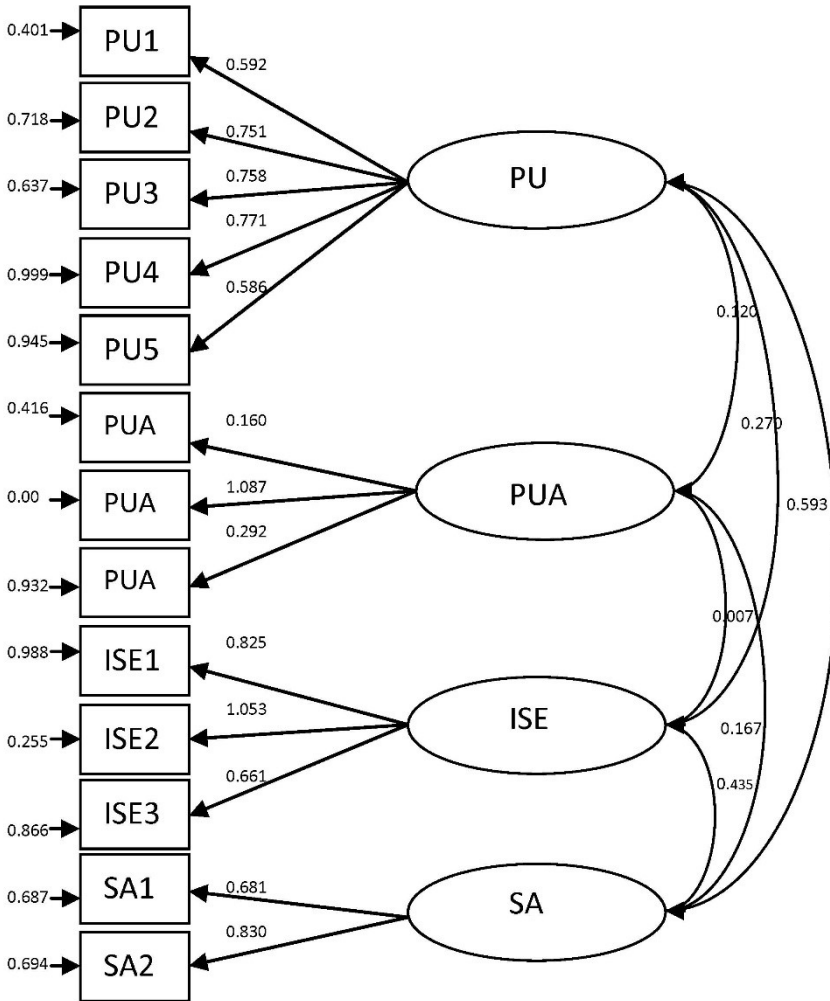
Figure 1. Completely standardized parameter estimates for the four-
factor CFA model of the Adoption of Facebook

All values of non-standard regression parameters (factor loadings) are significant on the basis of the critical ratio test (>±2.56, p < 0.01) (see Table 4).

According to the CFA results, the assumed model of *Adoption of Facebook* is confirmed, which can properly be described using four factors: Perceived Usefulness, Perceived Usage Access, the Influence of Social Environment, and Social Affiliation.

CFA Model for the Purposes of Facebook Usage

Facebook is one of the most popular social networks, which is used for various purposes such as communication with others, maintaining contact with friends and

Table 4

Parameter estimates and their statistical significance for the Adoption of Facebook model

Path	Estimate	t-value	p value
PU1	0.592	8.653	**
PU2	0.751	8.353	**
PU3	0.758	8.745	**
PU4	0.771	7.563	**
PU5	0.586	6.211	**
PUA1	0.160	3.071	**
PUA2	1.087	17.776	**
PUA3	0.292	3.712	**
ISE1	0.825	7.732	**
ISE2	1.053	10.688	**
ISE3	0.661	7.020	**
SA1	0.681	6.822	**
SA2	0.830	7.353	**

Note. ** significant at 0.01 level

making new acquaintances (Stutzman, 2006), meeting the social relations of young people (Ito et al., 2008; Livingstone, 2009) as well as establishing and maintaining business relationships (Ellison, Steinfield, & Lampe, 2007). The aim of this study was to examine the purpose of using Facebook by students. Dabner (2012) believes that Facebook can improve results and performance of students. Social network sites (such as Facebook, MySpace, and Twitter, etc.) provide the opportunity for building and maintaining online social network groups around a specific interest. For example, instructors in higher education can create a course-based social network to engage students (Imlawi, Gregg, & Karimi, 2015). Irwan et al. (2012) studied the Facebook as a tool for learning. They made four Facebook pages for a university course which the students considered an effective tool for learning. Other authors suggest that students use Facebook as a technology for improving social activities, and not as a means of learning (Hew, 2011). Manca and Ranieri (2015) believe that the use of social media in higher education is still quite limited for several reasons: cultural resistance, pedagogical issues and institutional constraints.

The purpose of using a latent variable is explained by using the three variables investigated: social interaction, daily activities and educational use. The proposed three-factor model for the purpose of using Facebook is tested using confirmatory factor analysis. The conceptual diagram of the tested model factors the Purpose of Facebook Usage is represented in Figure 2. Three factors represent the data of the latent variables, and their values are not directly determined.

The model means that the variable is latent – Social relations are estimated according to four examined variables (indicators) from the survey SR1–SR4: "I use Facebook to find and communicate with friends with whom I have not been in touch for a while" (SR1), "I use Facebook to make new friends" (SR2), "I use Facebook to communicate with my friends" (SR3), "I use Facebook to share information with my friends" (SR4).

Users access Facebook daily for the purpose of entertainment, joining groups, playing games, watching videos, expressing thoughts and getting information from friends. Everyday activities as a latent variable is represented by two variables tested: "I use Facebook to keep up with my Facebook friends" (DA1), and "I use Facebook to follow innovations" (DA2).

In addition to using social networks for entertainment and social activities, the students realized the importance of their use for educational purposes. The aim of the study is to examine the purpose of the use of Facebook among students and to examine their perceptions, uses and attitudes to educational usage. Educational usage as a latent variable is estimated according to seven examined variables (indicators) from the survey EU1 – EU7: "The use of Facebook allows me to easily and quickly communicate with colleagues in connection with the items, group projects, recommendations and experiences" (EU1), "The use of Facebook allows me to communicate with teachers on all matters relevant to the exam, knowledge acquisition, development project and homework" (EU2), "The use of Facebook to transfer content and information and to receive information about lectures, classes, exams" (EU3), "I use Facebook as a means to increase the effect of the lectures" (EU4), "The use of Facebook encourages the creation of academic groups of people with common interests and needs" (EU5), "Facebook encourages students to work in teams" (EU6), "Facebook provides the exchange of different materials from lectures or multimedia content (videos, audio materials, documents, etc.) which are important for learning" (EU7).

As with the previously analysed model Adoption of Facebook, the values of the load factor were estimated, and the indicators were associated with only one factor which may be correlated. The correlation coefficients between items in the model are shown in Table 5.

As for the model Adoption of Facebook, the assumed model Purposes of Facebook Usage was tested by CFA – confirmatory factor analysis on the basis of the data from 159 students from the Belgrade Banking Academy. In the case of the model Purposes of Facebook Usage, the obtained values of the index that refers to the quality of fit to the model are as follows χ^2(N=159, df=62)=121.828, p<0.001, CFI=0.917, NFI=0.908, TLI = 0.896, SRMR = 0.059. The basic indicators of fit to the model NFI and CFI are above 0.90; TLI had the value near 0.9, whereas the value of SRMR was below 0.08, so the original model is accepted without any changes.

Table 5

Correlations between observed variables for the Purposes of Facebook usage CFA model

|	SR1	SR2	SR3	SR4	DA1	DA2	EU1	EU2	EU3	EU4	EU5	EU6	EU7
SR1	1	/	/	/	/	/	/	/	/	/	/	/	/
SR2	0.460	1	/	/	/	/	/	/	/	/	/	/	/
SR3	0.400	0.360	1	/	/	/	/	/	/	/	/	/	/
SR4	0.351	0.266	0.399	1	/	/	/	/	/	/	/	/	/
DA1	0.254	0.172	0.175	0.400	1	/	/	/	/	/	/	/	/
DA2	0.252	0.153	0.167	0.243	0.415	1	/	/	/	/	/	/	/
EU1	0.368	0.415	0.199	0.187	0.252	0.313	1	/	/	/	/	/	/
EU2	0.303	0.327	0.237	0.179	0.199	0.235	0.609	1	/	/	/	/	/
EU3	0.370	0.352	0.273	0.154	0.096	0.243	0.541	0.739	1	/	/	/	/
EU4	0.311	0.341	0.286	0.153	0.198	0.211	0.501	0.434	0.519	1	/	/	/
EU5	0.377	0.257	0.296	0.234	0.339	0.406	0.556	0.536	0.556	0.379	1	/	/
EU6	0.343	0.398	0.243	0.222	0.354	0.344	0.627	0.477	0.519	0.464	0.561	1	/
EU7	0.282	0.306	0.199	0.284	0.225	0.243	0.524	0.414	0.419	0.284	0.441	0.404	1
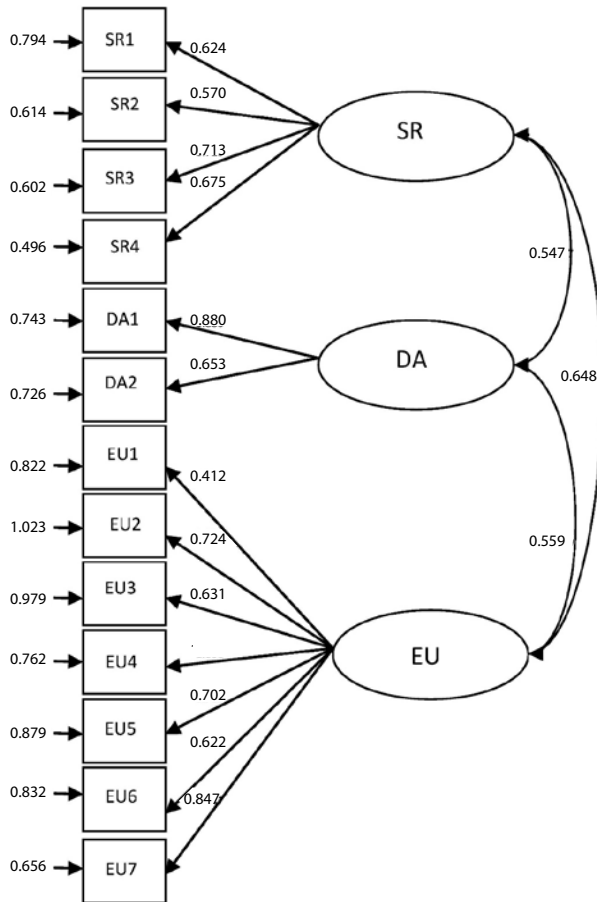
Figure 2. Completely standardized parameter estimates for the three-factor CFA model of the Purposes of Facebook Usage

The next step is the estimation of the values of the parameters of the model. All values of non-standard regression parameters (factor loadings) are significant based on the critical ratio test (>±2.56, p<0.01) (see Table 6).

Table 6
Parameter estimates and their statistical significance for the Purposes of Facebook usage model

Path	Estimate	t-value	*p* value
SR1	0.794	8.707	**
SR2	0.614	7.618	**
SR3	0.602	6.913	**
SR4	0.496	6.057	**
DA1	0.743	6.229	**
DA2	0.726	6.524	**
EU1	0.822	11.383	**
EU2	1.023	10.980	**
EU3	0.979	11.134	**
EU4	0.762	8.007	**
EU5	0.879	10.086	**
EU6	0.832	10.125	**
EU7	0.656	7.591	**

Note. ** significant at 0.01 level

Based on these results it can be concluded that the CFA analysis confirmed the factor structure of the proposed model Purpose of Facebook Usage. The results from this study support the validity of the instrument for the measurement and compliance of the three-factor theoretical model Purpose of Facebook Usage which is based on social relationships, daily activities and educational use.

Conclusion

In recent years, there has been a growing popularity of social networks among students. Social networks have the potential to become an important source of support for educational communication and cooperation with the faculty. The emergence of Facebook has an impact on the change of communication between students and with others, exchange of information and the advancement of knowledge (Volungevičienė, Tereševičienė, & Mejerytė-Narkevičienė, 2015).

Facebook has the potential to support students in areas such as development of self-esteem, social acceptance, and adapting to university culture, which have a favourable impact on the results of student learning (Yu, Tian, Vogel, & Kwok, 2010). According to the study of Roblyer, McDaniel, Webb, Herman, and Witty (2010), students are much more open to the use of Facebook and other social networks in the learning process than their faculty. Fewkes and McCabe (2012) suggest the need for better use of Facebook by teachers in classrooms and acceptance of social media for the implementation of curricula in the form of informal educational resources.

The results show that students mainly use Facebook for social purposes, primarily to communicate with friends and for making new friends. Regarding the use for educational purposes, Facebook is the most respected platform for exchange of materials and information from lectures, communication with colleagues and formation of academic groups.

Hamid, Waycott, Kurnia, and Chang (2015) found that students who use social technology show more interaction with other students and lectures. The results of this study largely support the inclusion of students into academic groups, cooperation through academic groups and improvement in the work of the group. Alloway, Horton, Alloway, & Dawson (2013) found that young people who had been using Facebook more than a year had better results on tests of verbal ability, working memory and spelling in relation to their peers who used it for a shorter period of time.

The most visited social network by the number of monthly visits according to the July 2017 data is Facebook, followed by YouTube, Twitter, Instagram and LinkedIn. Each of these social networks has special distinguishing characteristics and significance. The importance of Facebook is not only mutual communication and exchange of information among students, but also it is a successful tool for learning and exchange of educational content. Students can use YouTube to watch videos and discuss content, which can significantly contribute to the improvement of digital skills and students' cognitive abilities. They can also create their own videos and share them with others. Video content used in lectures keeps students' attention, raises students' interest in the course syllabus and improves their productivity and involvement in lectures.

Students use Twitter, a microblogging platform, where they put shorter posts and, accordingly, update their status more frequently. One of the benefits of Twitter for students is that it can improve communication and critical thinking. The professors use lists, based on which students can develop their knowledge and skills because each student makes their own Twitter list for a certain piece of material. Consequently, students focus on one topic and through the analysis of online sources they master a particular topic. Students use Storify, an application based on which they create interesting stories from sources they have found on the Internet. In relation to LinkedIn, professors and students use Facebook and Twitter more often to keep in touch with their colleagues.

LinkedIn is a social network that has developed an application specifically designed for students, which, unlike Facebook and Twitter, is not intended to connect students, but to develop their further career. Thanks to this application, students will be able to search for different jobs depending on their qualifications and levels of education. Instagram is a social network characterized by a very convenient sharing of photos and videos. Students can use Instagram to learn about the campus and university, and interaction and communication with other former and current students.

Higher education institutions have realized the importance of using social media, such as communication technologies, which are widely accepted by teachers and

students, and represent a valuable resource that promotes educational communication and cooperation between students and faculties. Social networking capabilities, such as social networking, creation of academic groups, blogs and forums, have a significant impact on the educational process for students as well as for teachers. The importance of Facebook is obvious, not only for establishing and improving communication and distribution of multimedia content, but also as an innovative learning tool. There are also restrictions on Facebook as a learning tool because it does not support many file formats and sizes to be uploaded. Social networks have become part of all spheres of our everyday life and have gradually changed the way of communication, cooperation and learning.

It should be pointed out that the limitations of this study are that the collected data refer only to students of one faculty in Belgrade. Thus, the perception of students regarding the adoption and purpose of Facebook use cannot generalize students of all faculties in Belgrade. In order to create a larger and more suitable sample, future studies should include students from other faculties. Future research studies may be focused on the reciprocal relationship between the purpose of using Facebook, especially educational use, and the GPA and student satisfaction.

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Percepcije studenata o važnosti upotrebe Facebooka za akademske svrhe

Sažetak

Facebook, kao najpopularnija društvena mreža, pronašla je veliku primjenu među studentima koji se njom, osim za zabavu i komunikaciju, koriste i za razmjenu relevantnih informacija o svojim studijima. Facebook je najčešće upotrebljavana društvena mreža među studentskom populacijom. Cilj ovog istraživanja jest ispitati ključne čimbenike koji motiviraju studente da se koriste Facebookom, utvrditi razloge upotrebe Facebooka i potencijal za njegovu upotrebu u akademske svrhe. Osnovni istraživački instrument strukturirani je upitnik. U rujnu 2016. godine intervjuirano je 159 studenata svih godina preddiplomskih i diplomskih studija. U analizi dobivenih podataka koristile su se sljedeće metode: t-test, koeficijent korelacije i analiza faktorske potvrde. Rezultati pokazuju da se studenti uglavnom koriste Facebookom za društvene svrhe. Što se tiče upotrebe u obrazovne svrhe, Facebook je najvrednija platforma za dijeljenje materijala i informacija s predavanja, komunikaciju s kolegama i stvaranje akademskih skupina. Posljednjih godina sve veća popularnost društvenih mreža među studentima ima potencijal da postane važan izvor podrške obrazovnoj komunikaciji i suradnji s fakultetom.

Ključne riječi: *društvene mreže; Facebook; obrazovna upotreba; student; visoko obrazovanje.*

Uvod

Fenomen društvenih medija predstavio je važne promjene u načinu komunikacije, interakcije i u metodama učenja. Upotreba društvenih medija u sveučilišnoj učionici postaje sve popularnija i znatno utječe na učenje i poučavanje (Foster, Farshid, Juena i Wallström, 2016). Društvene mreže nude studentima više mogućnosti za komuniciranje, učenje, raspravu, razmjenu informacija, odražavanje, procjenu i ocjenu preuzetih studijskih materijala, davanje povratnih informacija i stjecanje novih znanja putem interneta (Volungevičienė, Teresevičienė i Mejerytė-Narkevičienė, 2015).

Danas studenti gledaju na društvene medije ne samo kao na sredstva umrežavanja već se njima koriste i za obrazovne svrhe. Istraživanja o društvenim mrežama i obrazovnim ustanovama nastoje odgovoriti na niz pitanja – kako se koriste socijalni mediji u obrazovanju, koji su ciljevi društvenih medija, što su prethodna iskustva, koje

su prepreke učinkovitoj upotrebi, kakva je budućnost društvenih medija u obrazovanju (Hebrang Grgić, i Mučnjak, 2015). Upotreba društvenih medija predstavlja važnu osnovu za društveni, emocionalni i kognitivni razvoj mladih ljudi koji većinu vremena provode na internet (Hayes, Van Stolk-Cooke i Muench, 2015). Sociolozi su odlučili definirati i prepoznati upotrebu Facebooka od mlađe generacije (Dong, 2008) kako bi shvatili da se ta generacija komunicira na mreži povezuje i identificira kao članica mrežne zajednice. Zbog sve veće korisničke zajednice Facebookovih obrazovnih istraživača i praktičara vjeruju da se Facebook može koristiti za isporuku obrazovnog sadržaja i djelovati kao alat za učenje (Buragga, Dhir, i Boreqqah, 2013).

Facebook početkom 2004. godine pokreću trojica studenata s Harvarda kao projekt povezivanja studenata s kampusom, a danas je jedna od najpopularnijih društvenih mreža, posebno među studentima. U početku je Facebook stvoren kako bi unaprijedio komunikaciju među pojedincima, ali taj fenomen promijenio je način komunikacije i institucija. Zbog brzog rasta popularnosti i globalne prisutnosti u svakodnevnom životu studenata, visokoškolske ustanove prepoznale su potencijalne mogućnosti Facebooka i njime se koriste za poboljšanje vlastitog poslovanja. Facebook je postao svojevrsna multifunkcionalna društvena usluga, zbog svoje široke platforme korisnicima nudi različite korisne alate za različite svrhe. Učenici su, koristeći se potencijalnim prednostima tog alata, olakšali podjelu obrazovnog materijala i povezali se s kolegama i profesorima.

Brojne studije bave se Facebookom kao najpopularnijom društvenom mrežom iz različitih aspekata (Hayes, Van Stolk-Cooke, i Muench, 2015). Osim društvene namjene Facebook se koristi i s ciljem dnevne zabave i dobivanja informacija: igranje igara, gledanje videozapisa, izražavanje misli, dijeljenje slika, praćenje događaja u nečijim društvenim krugovima itd. (Kabilan, Ahmad i Abidin, 2010; Sharma, Joshi i Sharma, 2016). Iako je ponajprije namijenjen društvenoj uporabi, u skladu s rezultatima nekoliko studija (Bosch 2009, Mazman i Usluel 2010, Sharma, Joshi, i Sharma 2016) Facebook se također može uspješno koristiti za obrazovne svrhe. Prema istraživanjima McCarthy (2012) studenti smatraju da je Facebook važan alat za učenje koji pojačava razvoj akademskih veza, promiče akademsku kritiku, raspravu i umrežavanje. Istraživači su potvrdili da bi socijalni umreženi sustavi trebali biti dio nastave kako bi podržali obrazovnu komunikaciju, interakciju i odnose (Bosch, 2009).

Prema Latib, Bolong i Ghazali svrha upotrebe Facebooka podijeljena je na sedam funkcionalnih područja: stvaranje osobnog identiteta; dijeljenje sadržaja; komunikacija s prijateljima; stvaranje osobnog ugleda; formiranje skupina u kojima ljudi imaju sličan interes; kontinuirano praćenje novih informacija i razvoj osobnih, prijateljskih i poslovnih odnosa. Facebook, poput ostalih društvenih mreža, pruža mogućnost stvaranja i praćenja mrežnih grupa čiji članovi imaju iste interese. Profesori često stvaraju grupe u vezi s temom svog predmeta i postavljaju materijale s predavanjima i važnim sadržajima vezanim uz ispit. Sadržaj se širi i lako je dostupan među članovima grupe, što predstavlja mjesto gdje studenti ostavljaju svoje komentare, prijedloge

i mišljenja. Na taj će način studenti uspostaviti i održavati kontakt s kolegama i profesorima, a profesori će nastojati pomoći studentima poboljšati proces učenja. Otkriveno je da se većina studenata koji se koriste društvenim mrežnim stranicama za obrazovanje koristi društvenim umrežavanjem sučelja u provođenju grupnih projekata i zadataka, za koje je utvrđeno da su vrlo korisni u provođenju grupnog rada (Zanamwe, Rupere i Kufandirimbwa, 2013). Stoga se preporučuje uporaba društvenih mreža u obrazovne svrhe kako bi se prevladali problemi, poput osjećaja izolacije iz skupine koja se često događa u procesima učenja i negativno utječe na učenje i „nemogućnost izražavanja u javnosti" zbog sramežljivosti (Ozturk, 2015).

Suradnja profesora i učenika na Facebooku vodi većoj motivaciji za učenje i veće sudjelovanje učenika putem kreativnih aktivnosti, što pridonosi boljim rezultatima i širenju pozitivne klime izvan učionice. Facebook pruža mogućnost poboljšanja komunikacije izvan učionice. Ta je komunikacija, definirana kao „komunikacija predavač–student, nastala izvan učionice radi ispunjenja učeničkih potreba" (Jones, 2008). Studenti obično provjeravaju svoje Facebook naloge češće nego *online* predavanja, čak i kada te programske podrške imaju platforme za *chat* i rasprave za sinkronizirane i asinkronizirane *online* rasprave (Bosch, 2009).

Sveučilišta su kao obrazovne institucije zabrinuta zbog sve veće nezainteresiranosti studenata za tradicionalan način učenja (Manasijević, Živković, Arsić i Milošević, 2016). Sveučilišta i obrazovne institucije zabrinuti su zbog povećanja nezainteresiranosti studenata za tradicionalnim načinom učenja, što dovodi u pitanje nastavničko iskustvo učitelja koji ga primjenjuje. Nastavnici trebaju pronaći učinkovitiji način obrazovanja koji će poticati učenike da na predavanjima sudjeluju aktivnije i motiviranije. Facebook pruža društveno okruženje omogućujući studentima da surađuju s predavačima i kolegama i olakšavaju proces stjecanja znanja (Çoklar, 2012). Facebook pruža društveno okruženje omogućujući učeniku interakciju s instruktorima i vršnjacima pa olakšava proces izgradnje znanja. Od velike je pomoći postavljanje raznih sadržaja na društvenu mrežu kojoj učenici mogu lako pristupiti i koristiti se materijalima za učenje, sve kako bi poboljšali akademski uspjeh na individualnoj razini (Kabilan, Ahmad i Abidin, 2010). Dijeljenje resursa i materijala sastoji se od aktivnosti poput razmjene multimedijskih resursa, videozapisa, audiomaterijala, animiranih videozapisa, resursa i dokumenata (Manasijević, Živković, Arsić i Milošević, 2016).

Metodologija

Trend upotrebe Facebooka u visokom obrazovanju relativno je nov, pa studije nastoje otkriti njegovo prihvaćanje i upotrebu u obrazovanju. Kako bi se ispunila svrha ovog rada, provedeno je istraživanje u Beogradskoj bankarskoj akademiji. Osnovni istraživački instrument bio je strukturirani upitnik koji se sastoji od dva dijela.

Prvi dio upitnika odnosi se na kontrolne varijable (spolnu strukturu učenika, dob, razinu i godinu studija, prosječne ocjene, koriste li se društvenim mrežama, učestalost upotrebe Facebooka). Drugi dio upitnika sastoji se od 26 pitanja koja su oblikovana

tako da se primjenom Likertove ljestvice ispituju stavovi učenika u vezi s prihvaćanjem i svrhom upotrebe Facebooka, a posebna pažnja posvećena je ispitivanju stavova učenika o upotrebi Facebooka u obrazovne svrhe. U svibnju 2016. godine intervjuirano je 167 studenata svih godina preddiplomskih I diplomskih studija. Analizirane su samo ankete studenata koji se koriste društvenom mrežom Facebook, njih 159 (95,2 %). Podatci su prikupljeni na Beogradskoj bankarskoj akademiji u Beogradu (Srbija).

Od 159 studenata njih 26,4 % bili su muškarci, a njih 73,6 % bile su žene. Većina ispitanih studenata imala je između 21 i 25 godina i iznosila je 64,8 %. Kada je riječ o razini studija, na osnovnoj razini studija bila su 102 studenta, a 57 na magistarskim studijima. Visok postotak učenika koristio se društvenim mrežama, 95,2 %. Od učenika koji se koriste društvenim mrežama, 98,8 % koriste se Facebookom. Kada je riječ o učestalosti pristupa Facebooku, 74,8 % učenika pristupi nekoliko puta tijekom dana. Prosječna ocjena ispitanika iznosi 8,65, a medijan 8,8. Polovica ispitanika u prosjeku ima manje od 8,8, a druga polovina više od 8,8.

Tablica 1

Rezultati

Rezultati brojnih studija pokazuju važnost upotrebe društvenih mreža u različitim područjima, a područje istraživanja također je usmjereno na visoko obrazovanje. Studenti i zaposlenici visokih učilišta uvidjeli su znatnu prednost koju mogu postići usvajanjem društvenih mreža poput Facebooka. Drugi dio upitnika sastoji se od pitanja koja imaju za cilj ispitati stavove studenata o usvajanju i svrsi korištenja, a u fokusu je ovog istraživanja ispitati upotrebu Facebooka u akademske svrhe. Tablica 2 prikazuje izračunate deskriptivne statističke dimenzije za drugi dio upitnika. Na temelju dobivenih rezultata postoje četiri glavna čimbenika dimenzije Usvajanja Facebooka (*Adoption of Facebook*): *Percipirana korisnost (Percieved Usefulness –PU)*, *Percipirani pristup upotrebi (Perceived Usage Access – PUA)*, *Utjecaj okoliša (Influence of Social Environment – ISE)* i *Socijalna pripadnost (Social affiliation – SA)*. Svrha upotrebe Facebooka (*Purposes of Facebook usage*) sadrži tri glavna čimbenika definirana kao *Društveni odnosi (Social Relations – SR)*, *Dnevne aktivnosti (Daily Activities – DA)* i *Obrazovnu uporabu (Educational Usage – EU)*. Pretpostavljena struktura modela s četiri faktora Usvajanje Facebooka i tri faktora Svrhe upotrebe Facebooka ispitana je na postojećem uzorku studenata koji su se koristili potvrdnom faktorskom analizom (*Confirmatory Factor Analysis – CFA*).

Tablica 2

Što se tiče faktora percipirana korisnost prvog modela Usvajanje Facebooka najveću važnost studenti daju stavci „Facebook dopušta komunikaciju s više ljudi u kratkom vremenskom razdoblju." (M = 4,21, SD = 0,87). Za faktor pristup upotrebi najveću srednju vrijednost ima stavka „Pristupanje i upotreba Facebook sadržaja je jednostavno" (M = 4,50, SD = 0,66), a ujedno ta stavka ima najveću srednju vrijednost

od svih stavki u prvom modelu. Sve stavke koje izgrađuju faktor Utjecaj okruženja, „Koristim se Facebookom jer se njime koriste moji vršnjaci" (M = 2,66, SD = 01,29), „Koristim se Facebookom po preporuci prijatelja" (M = 02,30, SD = 01,17) i „Biram sadržaje Facebooka koji su omiljeni mojim prijateljima"(M = 02,16, SD = 01,14) imaju dosta niske srednje vrijednosti i najniže su za cijelu dimenziju (model) usvajanja Facebooka. Ti rezultati pokazuju da je utjecaj okruženja na usvajanje Facebooka na studente relativno nizak, jer su sve stavke koje se odnose na utjecaj okruženja imale relativno niske srednje vrijednosti (vrijednosti manje od 3). Rezultati nam pokazuju da studenti Facebook smatraju važnim sredstvom društvenog umrežavanja, jer stavke faktora koji opisuje tu dimenziju (Društvena pripadnost) imaju visok rezultat (srednja vrijednost iznad 3).

Što se tiče stavki u vezi sa Svrhom upotrebe Facebooka, najviši rezultati utvrđeni su za stavke faktora Društveni odnosi: „Koristim se Facebookom da steknem nova prijateljstva" (M = 4,22, SD = 0,97), „Koristim se Facebookom da komuniciram sa svojim prijateljima" (M = 3,96, SD = 01,05), „Koristim se Facebookom za razmjenu informacija s prijateljima" (M = 3,87, SD = 0,97), „Koristim se Facebookom da pronađem i komuniciram s prijateljima s kojima nisam bio u kontaktu neko vrijeme" (M = 3,79, SD = 01,14).

Sve stavke koje se odnose na upotrebu Facebooka u obrazovne svrhe imaju srednje vrijednosti veće od 3, osim stavke „Koristim se Facebookom kao sredstvom za povećanje učinka na predavanja" (M = 2,90, SD = 01,25). Ti rezultati pokazuju da studenti shvaćaju važnost Facebooka u obrazovne svrhe, ali da im on i dalje više služi za razvijanje društvenih odnosa. Također, rezultati pokazuju da su glavne prednosti uporabe Facebooka u obrazovne svrhe laka i brza komunikaciju između učenika u vezi s ispitnim zadacima, grupnim projektima i razmjena različitih materijala s predavanja ili multimedijskih sadržaja (videosnimaka, audiomaterijala, dokumenata i sl.).

Sljedeći dio rezultata i rasprave odnosit će se na analizu Usvajanje i Svrhe primjene Facebooka statističkim modeliranjem (*Stastical Modeling)*. Dva modela teorijskih čimbenika, usvajanje Facebooka i svrha upotrebe Facebooka, iz literature, ispitana su s pomoću potvrđene faktorske analize (*CFA – Confirmatory Factor Analysis*) za postojeći (dobiveni) uzorak.

Rasprava
CFA model za usvajanje Facebooka

Rezultati ankete pokazuju da percipirana komunikacija, percipirana uporaba, utjecaj na okoliš i socijalna pripadnost imaju značajan pozitivan utjecaj na usvajanje Facebooka. Prethodne studije (Kin, i He, 2006; Mazman, i Usluel, 2010; Ngai, Poon, i Chan, 2007; Van Raaij, i Schepers, 2008) pokazuju da je Percipirana korisnost bio najvažniji čimbenik u predviđanju usvajanja Facebooka. Davis (1989) je razvio model prihvaćanja tehnologije (*The Technology Acceptance Model –TAM*), koji ističe da su „opažena korisnost" i „percipirani pristup korištenju" predstavljaju primarne

motivacijske čimbenike za usvajanje i upotrebu novih tehnologija. Davis definira percipiranu korisnost kao „stupanj do kojeg pojedinci smatraju da će im upotreba određenog sustava poboljšati radni učinak", a percipirani pristup upotrebe „stupanj do kojeg pojedinac smatra da će uporaba određenog sustava biti bez fizičkih i mentalnih napora". Ovo istraživanje potvrdilo je da je Percipirani alatni program najvažniji čimbenik pri prihvaćanju i upotrebi Facebooka.

U ovom radu faktor percipirana korisnost je ocijenjen s pomoću pet stavki primjenom Likertove ljestvice PU1 – PU5: Facebook dopušta komunikaciju s više ljudi u kratkom razdoblju (PU1), Facebook mi omogućuje da podijelim s lakoćom određene informacije o sebi (PU2), Facebook mi olakšava uspostavljanje i održavanje kontakta s prijateljima (PU3), Facebook dopušta da upoznam nove ljude (PU4), općenito, upotreba Facebooka obogaćuje moje osobne odnose (PU5).

Percpirani pristup upotrebe predstavljen je kao latentna varijabla s pomoću tri ispitane varijable: Pristupanje i upotreba sadržaja s Facebooka jednostavni su (PUA1), Do sada nisam imao/la problem prilikom upotrebe sadržaja s Facebooka (PUA2), Facebook nudi odgovarajuću tehničku podršku ako se pojavi problem pri upotrebi (PUA3).

Utjecaj okruženja na usvajanje sadržaja s Facebooka objašnjen je ovim stavkama: Upotrebljavam Facebook jer ga upotrebljavaju moji vršnjaci (ISE1); Upotrebljavam Facebook po preporuci prijatelja (ISE2) i Biram sadržaje Facebooka koji su omiljeni mojim prijateljima (ISE3). Četvrti faktor – Društvena pripadnost ocjenjuju se koristeći se indikatorima SA1 (Facebook mi omogućuje stvaranje i pristup grupama s kojima imam iste interese i potrebe) i SA2 (Upotrebljavam Facebook da bih timski radio/la s drugim članovima grupe). U Tablici 3. prikazana je korelacijska matrica s izračunatim koeficijentima korelacije između stavki prvog modela.

Tablica 3

Za ovaj pretpostavljeni model (Prikaz 1) utvrđuju se ili procjenjuju sva faktorska opterećenja; Dopušta se da stavke budu povezane samo s jednim faktorom (bez preklapanja); a čimbenici mogu biti u korelaciji (ekvivalentna kosi rotaciji u istražnoj analizi faktora). Pretpostavljeni model usvajanja Facebooka testiran je potvrđivačkom faktorskom analizom na temelju prikupljenih podataka od 159 studenata s Beogradske bankarske akademije. Nije bilo podataka koji nedostaju. Pretpostavke multivarijatne normalnosti i linearnosti procjenjivane su primjenom SPSS 22.0 programa.

Prikaz 1

Tablica 4

U prvom koraku procjenjuje se pretpostavljeni model (Slika 1). Da bi se opisala kvaliteta modela, prikazani su i neki parametri, kao i njihovi pragovi. Neki od najčešćih indeksa su: *Indeks usporedne prilagodbe* (*CFI – Comparative Fit Index*), *Normirani fit indeks (NFI – Normed Fit Index)*, *Nenormirani fit indeks* (*NNFI – Non-Normed Fit*

Index, također poznat kao *TLI*), standardizirani kvadratni korijen prosječnog kvadrata reziduala (*SRMR –Standardized Root Mean Square Residual*).

Vrijednosti opisanih indeksa: χ2 (N = 159, df = 59) = 97,713, p <0,01, CFI = 0,908, NFI = 0,905, TLI = 0,878, SRMR = 0,072, RMSEA = 0,061 bile su veće od 0,9, a TLI indeks imao je vrijednost blizu 0,9. SRMR vrijednost bila je ispod 0,08. Te vrijednosti pokazale su dobru prilagodbu modela. U ovom su se radu koristili nestandardni koeficijenti jer su sve stavke imale Likertovu ljestvicu od 5 razina.

Sve vrijednosti nestandardiziranih regresijskih parametara (čimbenik faktora opterećenja faktora) bile su značajne na temelju kriterija kritične vrijednosti (> ± 2,56, p <0,01) (vidi Tablicu 4).

Na temelju rezultata CFA-e potvrđen je pretpostavljeni model prilagodbe Facebooka, koji možemo ispravno opisati s pomoću četiri čimbenika: percipirane korisnosti, percipiranog pristupa upotrebi, utjecaja na okoliš i društvene pripadnosti.

CFA model za Svrhu upotrebe Facebooka

Facebook predstavlja jednu od najpopularnijih društvenih mreža, koja se koristi u različite svrhe poput komunikacije s drugima, održavanja kontakta s prijateljima i stvaranja novih poznanstava (Stutzman, 2006), ispunjavanja društvenih odnosa mladih (Ito i sur., 2008; Livingstone, 2009), ali i uspostavljanja i održavanja poslovnih odnosa (Ellison, Steinfield, i Lampe, 2007). Cilj je ovog rada ispitati svrhu upotrebe Facebooka kod studenata. Dabner (2012) vjeruje da Facebook može poboljšati uspješnost studenata. Web-lokacije društvenih mreža (kao što su Facebook, MySpace i Twitter itd.) pružaju priliku za izgradnju i održavanje mrežnih skupina društvenih mreža povezanih određenimg interesom. Na primjer, instruktori u visokom obrazovanju mogu stvoriti socijalnu mrežu utemeljenu na tečajevima kako bi se studenti angažirali (Imlawi, Gregg i Karimi, 2015). Irwan i Sarani (2012) proučili su Facebook kao alat za učenje. Napravili su Facebook stranice za četiri sveučilišna kolegija koja je student smatrao učinkovitim alatima za učenje. Drugi autori izvješćuju o tome kako se studenti koriste Facebookom kao tehnologijom za promicanje društvenih aktivnosti, a ne kao alatom za učenje (Hew, 2011). Manca i Ranieri (2015) smatraju da je upotreba društvenih mreža u visokom obrazovanju i dalje prilično ograničena zbog više razloga: kulturnog otpora, pedagoških pitanja i institucionalnih ograničenja.

Svrha upotrebe kao latentne varijable objašnjava se trima testiranim varijablama: društvenim odnosima, dnevnim aktivnostima i obrazovnom upotrebom. Predloženi model s tri faktora sa svrhom upotrebe Facebooka testiran je s pomoću analize faktora vrednovanja. Konceptualni dijagram testiranog modela čimbenika Svrha upotrebe Facebooka prikazan je na prikazu. Tri čimbenika podataka latentne su varijable i njihove vrijednosti nisu izravno određene.

Model podrazumijeva da je latentna varijabla – Društveni odnosi ocijenjeni na temelju četiri ispitane varijable (indikatora) iz upitnika SR1–SR4: Upotrebljavam Facebook za pronalaženje i komuniciranje s prijateljima s kojima nisam bio u kontaktu

neko vrijeme (SR1), Upotrebljavam Facebook da steknem nova prijateljstva (SR2), Upotrebljavam Facebook da komuniciram s prijateljima (SR3), Upotrebljavam Facebook za razmjenu informacija s prijateljima (SR4).

Korisnici se dnevno služe Facebookom radi dnevne zabave, pridruživanja grupama koje igraju igre, gledanja videozapisa, izražavanja misli i dobivanja informacija od prijatelja. Svakodnevne aktivnosti kao latentna varijabla predstavljena je s pomoću dvije ispitane varijable: Upotrebljavam Facebook da bih bio u toku sa zbivanjima mojih Facebook prijatelja (DA1) i Služim se Facebookom da bih pratio inovacije (DA2).

Osim služenja društvenim mrežama sa svrhom zabavnih i društvenih aktivnosti, učenici su vidjeli svoju važnost za služenje tim mrežama u obrazovne svrhe. Cilj studije jest ispitati svrhu služenja Facebookom među studentima, ispitati njihova zapažanja i koristiti se stavovima o obrazovnoj upotrebi. Obrazovna uporaba kao latentna varijabla ocijenjena je na temelju sedam ispitanih varijabli (indikatora) iz upitnika EU1– EU7: Upotreba Facebooka omogućuje jednostavnu i brzu komunikaciju s kolegama u vezi s testnim zadacima, grupnim projektima, preporukama i iskustvima (EU1), Upotreba Facebooka omogućuje mi da komuniciram s profesorima o svim pitanjima koja su važna za polaganje ispita, stjecanje znanja, razvoj projektnih i domaćih radova (EU2), Upotreba Facebooka omogućava prijenos sadržaja i informacija te obavještavanje o predavanjima, tečajevima, ispitima (EU3), Upotrebljavam Facebook kao sredstvo za povećanje učinka na predavanju (EU4), Upotreba Facebooka potiče stvaranje akademskih skupina ljudi s istim interesima i potrebama (EU5), Facebook potiče studente na timski rad (EU6), Facebook pruža razmjenu različitih materijala s predavanja ili multimedijalnih sadržaja (videa, audiomaterijala, dokumenata itd.) koji su važni za učenje (EU7).

Kao u slučaju prethodno analiziranog Facebook pristupa, procjenjuju se vrijednosti čimbenika učitavanja, a pokazatelji su povezani samo jednim faktorom koji se može povezati. Koeficijenti korelacije između stavki u modelu prikazani su u Tablici 5.

Tablica 5

Kao u slučaju modela Usvajanje Facebooka pretpostavljeni model svrhe upotrebe Facebooka testiran je s pomoću konfirmatorne faktorske analize, na temelju podataka iz 159 studenata s Beogradske bankarske akademije. U slučaju modela Svrha upotrebe Facebooka, dobivene indeksne vrijednosti koje ukazuju na kvalitetu usklađenosti modela bile su χ^2 (N = 159, df = 62) = 121,828, p <0,001, CFI = 0,917, NFI = 0,908, TLI = 0,896, SRMR = 0,059. Osnovni pokazatelji usklađenosti s NFI i CFI bili su iznad 0,90, TLI je imala vrijednost blizu 0,9, a vrijednost SRMR bila je ispod 0,08, tako da je originalni model prihvaćen bez ikakvih promjena.

Sljedeći je korak bio procjena vrijednosti parametara modela. Sve vrijednosti nestandardiziranih regresijskih parametara (faktor opterećenja) bile su značajne na temelju kritične vrijednosti (> ± 2,56, p <0,01) (vidi Tablicu 6).

Prikaz 2

Na temelju dobivenih rezultata može se zaključiti da je CFA analiza potvrdila faktorsku strukturu predloženog modela Svrha upotrebe Facebooka. Dobiveni rezultati ovog istraživanja podupiru valjanost instrumenta za mjerenje i usklađivanje teorijskog trofaktorskog modela. Svrha korištenja Facebooka temelji se na društvenim odnosima, dnevnim aktivnostima i obrazovnoj upotrebi.

Tablica 6

Zaključak

Posljednjih godina sve veća popularnost društvenih mreža među studentima ima potencijal postati važan izvor podrške obrazovnoj komunikaciji i suradnji s fakultetom. Pojava Facebooka utjecala je na promjenu načina komunikacije među studentima i s drugima, na razmjenu informacija i unapređenje znanja (Volungevičienė, Teresevičienė, i Mejerytė-Narkevičienė, 2015).

Facebook ima potencijal podržati studente u područjima poput razvoja samopoštovanja, društvene prihvaćenosti i prilagodbe sveučilišnoj kulturi, što sve ima povoljan utjecaj na rezultate učenja učenika (Yu, Tian, Vogel i Kwok, 2010). Prema studiji Roblyer, McDaniel, Webb, Herman i Witty (2010) studenti su znatno otvoreniji za uporabu Facebooka i drugih društvenih mreža u nastavnom procesu od fakulteta. Fewkes i McCabe (2012) ukazuju na potrebu za boljom upotrebom Facebooka od nastavnika u učionicama i prihvaćanjem društvenih medija za realizaciju nastavnih programa, i kao neformalnog nastavnog sredstva.

Rezultati pokazuju da se studenti uglavnom koriste Facebookom za društvene potrebe, ponajprije za komuniciranje s prijateljima i stjecanje novih prijatelja. Što se tiče upotrebe u obrazovne svrhe Facebook je najvrednija platforma za dijeljenje materijala i informacija s predavanja, za komunikaciju s kolegama i stvaranje akademskih skupina.

Hamid, Waycott, Kurnia i Chang (2015) otkrili su da studenti koji se koriste društvenom tehnologijom pokazuju veću interakciju s drugim studentima i predavanjima. Rezultati te studije uvelike podupiru sudjelovanje studenata u akademskim skupinama, suradnju putem akademske grupe i poboljšanje grupnog rada. Alloway, Horton, Alloway i Dawson (2013) ustanovili su da su mladi ljudi, koji su se Facebookom koristili dulje od godinu dana, imali bolje rezultate na testovima verbalne sposobnosti, radne memorije i pravopisa u odnosu na svoje vršnjake, koji su se njime koristili u kraćem razdoblju.

Najposjećenija društvena mreža prema broju mjesečnih posjeta prema podatcima iz srpnja 2017. su Facebook, zatim You Tube, Twitter, Instagram, LinkedIn. Svaka od tih društvenih mreža ima posebne karakteristike i važnost. Važnost Facebooka nije samo za interakciju i razmjenu informacija između učenika, već i kao uspješan alat za učenje i razmjenu obrazovnih sadržaja. Studenti se mogu koristiti You Tubeom za gledanje videozapisa i raspravu o sadržaju koji može znatno utjecati na poboljšanje digitalnih vještina i kognitivnih sposobnosti učenika. Također im je dopušteno izraditi

vlastite videozapise kako bi ih podijelili s drugima. Videosadržaj koji se koristi na predavanjima zadržava pozornost studenata i utječe na studente da su oni daleko više zainteresirani za sadržaj predmeta i tečajeva, njihovu produktivnost i uključenost u predavanja.

Studenti se koriste Twitterom, platformom za microblogging, gdje objavljuju kraće postove i, u skladu s tim, češće ažuriraju svoj status. Jedna od prednosti Twittera za studente je da im može poboljšati komunikaciju i kritičko razmišljanje. Profesori se koriste popisima na kojima učenici mogu razviti svoje sposobnosti i vještine tako što svaki učenik izrađuje svoj popis za određeni materijal. Slijedom toga studenti se usredotočuju na jednu temu. Studenti se koriste arhiviranjem, aplikacijom na temelju koje postavljaju zanimljive priče iz izvora koji se nalaze na webu. U odnosu na LinkedIn profesori i studenti češće se koriste Facebookom i Twitterom kako bi ostali u kontaktu s kolegama.

LinkedIn je društvena mreža koja je razvila aplikaciju specifičnu za studente, koja, za razliku od Facebooka i Twittera, nije namijenjena povezivanju učenika, već razvijanju njihove daljnje karijere. Zahvaljujući toj aplikaciji, studenti će moći istraživati različite poslove ovisno o svojoj kvalifikaciji i razini obrazovanja. Instagram je društvena mreža koju karakterizira vrlo jednostavno dijeljenje fotografija i videosadržaja. Učenici se mogu koristiti Instagramom kako bi upoznali fakultetski i sveučilišni život i komunicirati s drugim bivšim i sadašnjim studentima.

Visokoškolske ustanove shvatile su važnost upotrebe društvenih medija kao komunikacijske tehnologije široko prihvaćene od nastavnika i studenata te da su one vrijedan resurs koji promiče obrazovnu komunikaciju i suradnju studenata i fakulteta. Mogućnosti društvenih mreža, kao što su društvena umrežavanja, kreiranje akademskih grupa, blogovi, forumi i dr., imaju važan utjecaj na obrazovni proces kako za studente, tako i za nastavnike. Važnost Facebooka očigledna je ne samo za uspostavljanje i poboljšanje komunikacije i distribucije multimedijalnih sadržaja, već i inovativni alat za učenje. Postoje i ograničenja na Facebooku kao alat za učenje, tj. ne podržava mnoge formate datoteka i veličine koje se prenose. Društvene mreže postale su dio svih sfera svakodnevnog života i postupno mijenjale način komunikacije, suradnje i učenja.

Potrebno je istaknuti granice ove studije, odnosno da se prikupljeni podatci odnose samo na studente s jednog fakulteta u Beogradu. Stoga se percepcije učenika o usvajanju i svrsi upotrebe Facebooka ne mogu generalizirati na studente svih fakulteta u Beogradu. Da bi se stvorio veći i prikladniji uzorak, buduće studije mogu uključivati studente s više fakulteta. Buduće istraživačke studije mogu se usredotočiti na odnos između svrhe upotrebe Facebooka, posebno za obrazovnu upotrebu, zatim prosječne ocjene studija i zadovoljstva učenika.