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Effect of Internet Addiction on Academic Performance at University Level

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ABSTRACT

The purpose of this study was to find out the effect of internet addiction on academic performance of students at university level. All 1387 students of BS sciences and social sciences were the population for this study. The sample size was 308 students of all programs of BS from Women University AJ&K selected randomly. A close ended questionnaire was developed by the researchers and then reviewed by the experts. The questionnaire was distributed among selected sample and collected by using descriptive survey method by the researcher. Data analysis shows that 63% are average online user. 32% university students are internet addicted and 4.5% university students are significantly internet addicted. The study found significant effect of average internet user on academic performance. A significant effect was also observed on Internet addicted students while not significant of high users. Percentage, frequency and simple linear regression were used to interpret the data. The results were arranged in in tabular form. The results were communicated to all heads of departments and university administration. Students should be monitored by teachers and parents on how they use the sites and the timing of internet use.

Introduction

The internet, sometimes known as "the net," is a global system of computer networks that allows users to obtain information from any other computer with permission using any computer (and sometimes talk directly to user at other computer). An individual's previous experience, genetics, the environment, and our brain circuits all combine intricately in the chronic, curable condition of addiction. Addicts frequently continue using drugs or engaging in obsessive activities despite the negative effects. Internet addiction is a mental illness characterized by excessive internet use, typically to the user's harm. Most people think of addiction as a mental illness characterized by

obsessive behavior. Someone may be said to be addicted to the internet if they are online all the time. Although it is acknowledged as and issue, experts are divided on whether to distinguish the word from addiction.

Other names for internet addiction include internet addiction disorder, pathological internet usage, reliance, problematic online use, misuse of the internet, and compulsive internet use. Internet usage has skyrocketed since the turn of the twenty-first century, especially in developing nations like Pakistan (Chaudhari, Menon, Saldanha, Tewari, and Bhattacharya, 2015). The purpose of this research is to evaluate the extent to which students are hooked to Internet usage due to the improved growth of network architecture at universities and the rise in the number of university students using the Internet (Chou, Hsiao, 2000). The effect of Internet addiction (IA) on students' performance in university-level students is positive. While the majority of young people in today's society are constantly experimenting with various Internet connections, there is much dispute over what constitutes leisurely Internet use and where the line is drawn between such use and a non-transitory addiction. Our initial objective is to develop a clear definition of internet addiction and to establish levels and use patterns that will define when someone should be deemed hooked and when they shouldn't be. In order to gauge this level of online addiction, we created a detailed series of questions.

Every facet of student life on all college and university campuses across the country and across the world has been impacted by the technical arrival of the Internet. While using the Internet for academic purposes has given students the ability to hone their talents and manage their medications in the search of effective success tactics, it has also created a Pandora's Door of peril and addiction. When students spend too much time and money on online activities, it is considered to be an Internet Addiction (IA). This study used a survey approach to collect information from a wide range of university students in order to identify the many forms of Internet addiction and the potential emotional repercussions of unrestricted access. People use the internet for a variety of purposes including communication, business, shopping, online bill payment, entertainment, and more at home, at school, and in public areas. Smart phones, laptops, tablets, computers, and smart televisions may all be used to access the internet, and the number is growing as a result of the incredible advancements in telecommunications technology.

Although the internet has significantly improved our everyday lives, excessive internet use can cause addiction, which has a detrimental effect on our quality of life. Internet addiction is characterized as the inability to control one's drive to use the internet, which eventually results in issues with one's mental health, relationships with others, academic performance, and/or employment (Chou and Hsiao, 2000).

University students today rely heavily on the internet for a variety of activities, including informational searches, social networking, entertainment, online shopping, and online gaming. Universities all across the globe are utilizing the internet to improve instruction in and outside of the classroom. Students can benefit from using the internet sensibly for the correct purposes, such as researching, learning, developing their soft skills, and exchanging experience and information with other individuals and groups, including overseas students. While the internet offers numerous benefits and increases productivity, if kids develop an addiction to it, it might be hazardous to their academic performance. Low academic performance and mental instability may result from it (Oskenbay et al., 2015). Yeap et al., (2016) therefore, this study's goals are to investigate how internet addiction affects academic performance as well as how it affects academic performance.

Although there are many researches regarding it, the most of them start with a broad definition of addiction. We view it as a unique sort of addiction and want to assess how it affects academic achievement. The authors of the majority of the papers we looked at claimed that addictions had a detrimental effect on academic achievement (Beato, 2010). What was previously mocked as internet addiction may someday be diagnosed.

In a significant study conducted in the early years of students, it was predicted and seen that inappropriate internet use would result in academic performance reductions in following grade tabulations. The internet also said that addictions consume a great deal of time, implying that participants are unable to devote enough time to their schoolwork, relationships, or any other important aspects of their lives. In this study, we especially look at the area of internet addiction to see if this is accurate. The study's second objective is to ascertain the effects of academic performance. Finally, we distinguished between time spent online for enjoyment and time spent online for academic objectives throughout the research. The data were measured for both academic and non-academic internet usage for that reason. Since the turn of the century, internet addiction disorder (IAD) has become a severe issue for contemporary society.

Internet addiction also refers to the excessive use of the internet to the point where it degrades its quality. The term "addiction" has a long history and is defined as "compulsive, uncontrollable dependence on a substance, habit, or practice to such a degree that cessation causes severe emotional, mental, or physiological reactions." (Kubey et al., 2001). The study of internet addiction is still very young. After a thorough review of the literature, no prior study was located that looked at the correlation between excessive internet usage and academic performance among Pakistani university students. The goal of the current study was to determine whether there was any connection between internet addiction and academic performance among Azad Kashmir, Pakistan, medical students. Akhter (2013) one outcome of the sophistication and development of science and artificial technology is the Internet. The term "internet" is an acronym for "interconnected networking," which in Indonesian denotes a collection of linked computers across various networks. The Internet offers numerous benefits to everyone on a daily basis, but students particularly benefit from it. Additionally, while being a relatively new medium for scientific materials, the Internet is filled with a wealth of information that differs greatly in terms of its aims, target audiences, credibility, and other factors. Therefore, it's critical that end users are educated on the standards by which information content should be evaluated and are aware of the vast range of information that is available on the Internet. Online services, specialized electronic networks, Web sites, email, software, and international information sources are now available in our homes and schools thanks to the remarkable rise in the telecommunications industry. Millions of individuals may participate in the creation and sharing of information in a space provided by the Internet.

Problem Statement

While the internet offers numerous benefits and increases productivity, if kids develop an addiction to it, it might be hazardous to their academic performance. Low academic performance and mental instability may result from it (Oskenbay et al., 2015). Since smart phones and the internet have become more widely accessible and inexpensive, a sizable proportion of students worldwide, including in Kashmir, have developed an addiction to their excessive use. This has resulted in subpar academic performance, distraction, and bad mental health. It appears that learners are more likely to use technology negatively than to use it to further their learning.

Objective of the Study

1. To find out the levels of internet addiction among students of women University of Bagh Azad Jammu and Kashmir.
2. To find out effect of internet addiction on academic achievement of the students of Women University Bagh Azad Kashmir.

Literature Review

The concept of Social idea of internet addiction serves as the foundation for network services (SNS) addiction (Andreassen, 2015). The improvement in living conditions brought about by contemporary communication and media technologies has led to an increase in the number of individuals utilizing their mobile phones to access the internet. There were 817 million mobile internet users in China as of 2014, according to data from the Ministry of Industry and Information Technology of China, out of 1.146 billion total users of mobile telecommunication services, based on the most recent Internet Development Report (China Institute of Information and Communication, 2017). Internet users on mobile devices are more numerous than those on PCs. Because of this, SNS addiction has lately drawn more attention than regular internet addiction. When a person looks to have an impulse control issue due to utilizing the internet, it is referred to as internet addiction, which is a psychosocial dysfunction.

Overusing social networking apps on smartphones is referred to as social network service addiction (Turel & Serenko, 2012). The models of addiction classify social internet addiction as excessive preoccupation with SNS. The individual must access the SNS even if it affects other social activities, school or job, interpersonal connections, psychological health, or happiness. If their addiction to SNS does not take the repercussions into account, they may experience a loss of control. SNS have four distinct characteristics: they are based online; they create an open or partially open archive in a system with boundaries; they connect with other users; and they have more in-depth interactions with and understanding of other users (Boyd & Ellison, 2007). According to logic, SNS addiction shares the same characteristics as addictive behaviors, such as salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse, since SNS addiction is based on internet use, and internet addiction is recognized as an addictive behavior (Wang, Ho, Chan, & Tse, 2015). Regarding salience, it can signify a complete dedication to social networking sites (SNS) in terms of behavior, cognition, and emotion; regarding mood modification, it can promote better emotional wellbeing when using SNS compared to not using them; regarding tolerance, it can signify an increased use of SNS; regarding withdrawal symptoms, it can elicit a negative mood or physical reaction when using SNS is restricted or denied; regarding conflict, it can cause issues for the individual and/or their relationships; (Kuss & Griffiths, 2012).

Currently, research has shown that SNS addiction may have a variety of detrimental repercussions on people. For instance, Pontes' (2017) study found that SNS addiction has a detrimental impact on a person's psychological health. Additionally, Mogbel and Kock (2017) discovered that those with greater degrees of SNS addiction may have negative effects at work. SNS addiction has been shown to have detrimental effects on people's feelings and self-esteem (Wang, 2015). Can SNS addiction impact kids' academic success, then? Although there are not enough studies to provide a definitive answer, it is important to note that general internet addiction has been extensively researched and shown to negatively impact students' academic performance (Eldeleklioglu & Vural-Batik, 2013). The internet addiction of college students (Kumar et al., 2018) and high school students (Stavropoulos, 2013) has been identified as one of the major factors affecting issues with

individual academic progress. Consequently, in light of the similarities between internet addiction and SNS addiction have effect on performance.

Schaufeli, Martinez, Pinto, Salanova, and Bakker (2002) presented the idea of learning engagement, which they define as a positive mental state pertaining to study activity, with three components: energy, devotion, and absorption. Vigor is the willingness to work hard and persevere in the face of difficulties. A researcher who is dedicated to their work is capable of devoting themselves to their work and is willing to face problems. Dedication is defined as a strong sense of duty and achievement towards their studies. Absorption is the ability for people to devote a lot of time and energy to studying while still having a satisfying psychological experience. The study looked at the relationship between undergraduate students who were somewhat mature and their academic success. (Jelas, Azman, Zulnaidi, and Ahmad, 2016) study indicated that learning engagement plays a mediating function between learning support and academic success among Malaysian students. Numerous studies have provided evidence of the important influence of learning engagement on individual academic accomplishment. Similar to this, other studies have found that key factors affecting students' academic achievement include learning engagement and classroom emotional climate (Northey, Govind, Bucic, Chylinski, Dolan, & Esch, 2017), students' perception of the learning environment (Wang & Holcombe, 2010), and classroom context (Dotterer & Lowe, 2011).

Research Methodology

This research is of a descriptive type. Horizontal survey research approach was adopted. The researcher circulated the questionnaire to the chosen population before collecting data using the descriptive survey approach. It focuses on analyzing the experiences of the female students at the Women's University AJK Bagh. The participant's evaluation of their observational points of view, suggestions, and experiences that were relevant to internet addiction was aided by the descriptive survey. Students studying in social sciences and sciences of BS program made up the study's population. All (1387) student of BS were constituted the population of the study. The sample size of the study was 308 students of BS selected through Krejcie & Morgan table. The participants were selected through random sampling technique from Women University of district Bagh. First semester students were excluded from this analysis since academic performance was not available. A standardized- questionnaire developed by Dr. Kimberly Young was used for data collection. The instrument of this study was a questionnaire including 20 questions. A close ended questionnaire of 6 point Likert scale type was used consisting of scale equal to 0 through 6 (doesn't apply) to (always). Each participants' Internet Addiction score was broken down into three categories: average on-line user (20–49) points with no addiction; moderate or experiencing frequent problems (50–79); and Addiction with causing significant problems (80–100). The larger degrees of internet addiction and issues brought on by internet use are represented by the higher summed item scores. For academic performance second questionnaire was developed by the researchers and administered along with first one. The researcher personally reached to each student and administered the survey. Data was gathered in this way. The researcher gathered information from the people. The privacy of the respondents was also preserved since copies of the surveys were distributed to them personally and collected back.

Data Analysis

The categorized data was subjected to descriptive and inferential statistical analysis with the aid of statistical package social science (SPSS) computer program. The frequency, percentage and Linear regression was used for analysis.

Table 1: Over-all Frequency Distribution of Sample Categories Wise

Internet users categories	Frequency	Percent
1. Average online user 20-49	196	63.0
2. Internet Addicted 50-79	101	32.5
3. Significant internet addicted 80-100	14	4.5
Total	311	100.0

The table 1: summarizes the distribution of participants based on their level of Internet addiction, categorized into three groups:

Distribution Summary

Average Online Users (Score: 20–49) Frequency = 196 , Percentage = 63.0%

This is the largest group, indicating that most participants use the Internet at a normal or average level.

Internet Addicted (Score: 50–79) Frequency = 101, Percentage = 32.5%. Nearly one-third of the participants fall into this category, suggesting moderate levels of addiction are relatively common.

Significantly Internet Addicted (Score: 80–100) Frequency = 14, Percentage = 4.5%

This is the smallest group, indicating that a minority exhibit high or severe levels of Internet addiction.

Overall Interpretation

- Out of 311 total participants, the majority (63%) are average users, suggesting a generally healthy pattern of Internet use.
- However, more than one-third (37%) of the sample fall into the addicted or significantly addicted categories, highlighting a potential concern for problematic Internet use in a sizable portion of the population.
- The low proportion (4.5%) of significantly addicted users implies that severe addiction is relatively rare, but still present and notable.

Table 2: Model Summary Internet Addiction

Internet Addiction	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
20-49 (Average Online User	1	.992[a]	.983	.983	.53874
50-79 (Internet Addicted)	1	.917[a]	.841	.839	.89348
80-100 Significant Internet Addicted)	1	.267[a]	.071	-.006	1.49632

a. Predictors: (Constant), Total Score

The table 2 presents the model summary of linear regression analyses conducted

20–49 (Average Online User)

- R = .992 indicates a very strong positive correlation between the predictor and the outcome.
- R Square = .983 means that 98.3% of the variance in Internet addiction scores for this group is explained by the total score.
- Adjusted R Square = .983 confirms a high explanatory power, adjusted for the number of predictors.
- Std. Error of Estimate = 0.53874 shows a low standard deviation of the residuals, indicating a precise model.

This model is statistically very strong and reliable.

50–79 (Internet Addicted)

- R = .917 shows a strong positive relationship.
- R Square = .841 means 84.1% of the variance is explained by the predictor.
- Adjusted R Square = .839 indicates slight shrinkage after adjusting, but still a strong fit.
- Std. Error = 0.89348 is slightly higher than the first group, indicating more variability in predictions.

This model is still strong, but slightly less precise than the first.

80–100 (Significantly Internet Addicted)

- R = .267 indicates a weak correlation between the total score and Internet addiction in this group.
- R Square = .071 means only 7.1% of the variance is explained by the model.
- Adjusted R Square = -0.006 is negative, suggesting the model does not generalize well and may not be better than a mean-only model.
- Std. Error = 1.49632 is high, showing greater prediction errors.

This model is statistically weak and unreliable for this group.

Overall Interpretation

The regression model strongly predicts Internet addiction scores for average and moderately addicted users, but it is ineffective for those who are significantly addicted. This suggests that the predictor (total score) has diminishing explanatory power as Internet addiction severity increases, possibly due to more complex factors influencing behavior in higher addiction levels.

The table 3 presents ANOVA (Analysis of Variance) results for linear regression models predicting academic performance based on the total score across three groups of Internet addiction:

20–49 (Average Online User)

- $F(1, 194) = 11271.499$, $p < .001$

- The regression model is highly significant, indicating that the total score is a strong predictor of academic performance in this group.
- Sum of Squares for Regression = 3271.509 vs. Residual = 56.308, showing that the vast majority of variance is explained by the model.

The model fits extremely well, with a significant and substantial effect.

Table 3: ANOVA Internet Addiction

Internet Addiction	Model		Sum of Squares	df	Mean Square	F	Sig.
20-49 (Average Online User	1	Regression	3271.509	1	3271.509	11271.5	.000[b]
		Residual	56.308	194	.290		
		Total	3327.816	195			
50-79 (Internet Addicted)	1	Regression	417.185	1	417.185	522.58	.000[b]
		Residual	79.033	99	.798		
		Total	496.218	100			
80-100 Significant Internet Addicted)	1	Regression	2.061	1	2.061	.920	.356[b]
		Residual	26.868	12	2.239		
		Total	28.929	13			

a. Dependent Variable: Academic Performance
b. Predictors: (Constant), Total Score

50–79 (Internet Addicted)

- $F(1, 99) = 522.582$, $p < .001$
- This result is also statistically significant, suggesting that the total score is a strong and reliable predictor of academic performance in this moderately addicted group.
- Regression Sum of Squares = 417.185 far exceeds the Residual Sum = 79.033, reinforcing model strength.

The model remains statistically strong and meaningful.

80–100 (Significantly Internet Addicted)

- $F(1, 12) = 0.920$, $p = .356$
- The model is not statistically significant, indicating that the total score does not significantly predict academic performance in this group.
- The low F-value and high p-value suggest no meaningful relationship.
- The Residual Sum of Squares (26.868) is much larger than the Regression Sum (2.061), reflecting poor explanatory power.

The model fails to predict academic performance in significantly addicted users.

Overall Interpretation

- For students with low to moderate levels of Internet addiction (20–79 range), total score significantly and strongly predicts academic performance.
- However, in the significantly addicted group (80–100), the predictor loses its effectiveness, and the model is not statistically significant.

- This may imply that other unmeasured factors are affecting academic performance in highly addicted individuals, reducing the predictive power of the total score.

Table 4: Coefficients Internet Addiction

Internet Addiction	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
20-49 (Average Online User	1	(Constant)	77.341	.168		460.12	.000
		Total	-.468	.004	-.992	-106.16	.000
50-79 (Internet Addicted)	1	(Constant)	65.155	.683		95.389	.000
		Total	-.260	.011	-.917	-22.860	.000
80-100 Significant Internet Addicted)	1	(Constant)	53.270	8.704		6.120	.000
		Total	-.098	.102	-.267	-.959	.356

a. Dependent Variable: Academic Performance

The table 4 displays the regression coefficients from models predicting academic performance based on total score (a measure of Internet addiction) across three user groups:

20–49 (Average Online User)

- Intercept (Constant) = 77.341, $p < .001$ → When total score is zero, the predicted academic performance is 77.341.
- Slope (B = -0.468), t = -106.167, $p < .001$ → For each 1-point increase in total score, academic performance decreases by 0.468 units. → Beta = -0.992 shows a very strong negative standardized effect.

The relationship is statistically significant and very strong.

50–79 (Internet Addicted)

- Intercept = 65.155, $p < .001$ → Predicted academic performance is 65.155 when total score is zero.
- Slope (B = -0.260), t = -22.860, $p < .001$ → Each 1-point increase in total score results in a 0.260-point decrease in academic performance. → Beta = -0.917 still indicates a strong negative relationship, though slightly weaker than in the previous group.

The relationship remains strong and statistically significant.

80–100 (Significantly Internet Addicted)

- Intercept = 53.270, $p < .001$→ Predicted academic performance is 53.270 when total score is zero.
- Slope (B = -0.098), t = -0.959, p = .356 → The coefficient is not statistically significant, and the Beta = -0.267 shows a weak and non-significant effect.

There is no statistically meaningful relationship between total score and academic performance in this group.

Overall Interpretation

- In the Average (20–49) and Internet Addicted (50–79) groups, there is a strong, statistically significant negative relationship between total Internet addiction score and academic performance.
- For the Significantly Internet Addicted (80–100) group, the effect is not significant, indicating that in this range, total score is not a reliable predictor of academic performance.
- The strength of the negative effect decreases as Internet addiction severity increases, suggesting diminishing predictive power of the total score in extreme addiction levels—likely due to other underlying or complex influencing factors.

Conclusions

The current study demonstrated the effects of internet addiction on academic performance at women university of AJK Bagh. Because at university level each student use internet and some student use internet negatively they spend more time on internet. But they do not have any benefit although they neglect the study and household chores. The following were the conclusions: While most participants demonstrate average Internet use, a considerable segment is at risk of or experiencing Internet addiction, warranting attention for potential intervention or awareness programs. The strength and significance of the predictive model decrease as Internet addiction severity increases. As Internet addiction increases, academic performance tends to decrease, but this trend becomes statistically insignificant among those with very high addiction scores.

Recommendation

1. Students should be monitored by teachers and parents on how they use these sites and how they use internet.
2. Teachers should ensure they use the internet as a tool to improve the academic performance of students in university

References

1. Akhter, N. (2013). Relationship between Internet Addiction and Academic Performance among University Undergraduates. *Educational Research and Reviews*, *8* (19), 1793-1796.
2. Andreassen C.S. (2015). Online social network site addiction: A comprehensivereview. Current Addiction Reports, 2, 175–184.
3. Beato, G. (2010). Internet addiction: What once was parody may soon be diagnosis. *Reason*, *16*.
4. Boyd D. and Ellison N. (2007). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, 210–230.
5. Chaudhari, B., Menon, P., Saldanha, D., Tewari, A., & Bhattacharya, L. (2015). Internet addiction and its determinants among medical students. *Industrial psychiatry journal*, *24*(2), 158-162.
6. Chou, C. & Hsiao, M. (2000). Internet addiction, usage, gratifications, and pleasure experience: The Taiwan College Students' case. *Comput. Educ.* 35, 65-80.
7. Dotterer A.M. and Lowe K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth & Adolescence,* 40, 1649–1640.
8. Eldeklioglu J. and Vural-Batik M. (2013). Predict we effects of academic achievement, internet use duration, loneliness and shyness on internet addiction. *EğitimFakü¸ ltesiDergisi*, 28, 141–152.

9. Jelas Z.M., Azman N., Zulnaidi H. and Ahmad N.A. (2016). Learning support and academic achievement among Malaysian adolescents: The mediating role of student engagement. *Learning Environments Research*, 19, 221–240.
10. Kubey, R. W., Lavin, M. J., & Barrows, J. R. (2001). Internet use and collegiate academic performance decrements: Early findings. *Journal of communication*, *51*(2), 366-382.
11. Kumar S., Kumar A., Badiyani B., Singh S.K., Gupta A. and Ismail M.B. (2018). Relationship of internet addiction with depression and academic performance in indian dental students. Clujul Medical, 91, 300–306.
12. Kuss D. J and Griffiths M. D. (2011). Online Social Networking and Addiction-A Review of the Psychological Literature Int. J. Environ. Res. Public Health 2011, 8, 3528- 3552
13. Moqbel M. and Kock N. (2017). Unveiling the dark side of social networking sites: Personal and work-related consequences of social networking site addiction. Information & Management, 55, 109–119.
14. Northey G., Govind R., Bucic T., Chylinski M., Dolan R. and Esch P.V. (2017). The effect of "here and now" learning on student engagement and academic achievement. *British Journal of Educational Technology*, 49, 321–333.
15. Oskenbay, F., Kalymbetova, E., Tolegenova, A., Kabakova, M., Bakiyeva, S., & Nugmanova, S. (2015). Addictive behavior among adolescents. *Procedia-Social and Behavioral Sciences*, *171*, 406-411.
16. Pontes H.M. (2017). Investigating the differential effects of social networking site addiction and internet gaming disorder on psychological health. Journal of Behavioral Addictions, 6, 601–610.
17. Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of cross-cultural psychology*, *33*(5), 464-481.
18. Stavropoulos V., Alexandraki K. and Motti-Stefanidi F. (2013). Recognizing internet addiction: Prevalence and relationship to academic achievement in adolescents enrolled in urban and rural Greek high schools. Journal of Adolescence, 36, 565–76.
19. Wang, C. W., Ho, R. T., Chan, C. L., & Tse, S. (2015). Exploring personality characteristics of Chinese adolescents with internet-related addictive behaviors: Trait differences for gaming addiction and social networking addiction. *Addictive behaviors*, *42*, 32-35.
20. Wang J. (2015). The influence of personal factors and class factors on middle school students' learning engagement. *China Journal of Health Psychology*, 23, 1836–1842.
21. Yeap, J. A., Ramayah, T., Halim, H. A., Ahmad, N. H., & Kurnia, S. (2016). Exploring the impact of internet addiction on academic engagement: A preliminary study on undergraduates. *Indian Journal of Management Science*, *6*(1), 1.