

Social Media Addiction in the Least Developed Countries: a quantitative study among university students in Afghanistan

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Abstract

This study examines social media addiction phenomenon and their application among universities students. Uses and gratifications and media systems dependency theories were used as a theoretical framework. A same dataset that was firstly collected and developed for ‘The relationship between social media addiction and depression: a quantitative study among university students in Khost, Afghanistan’ was used. Probability-stratified sampling method was used, and a 35-items questionnaire was distributed to replicate Kimberly Young’s Internet Addiction Test (IAT). Three hundred eighty-four students from three universities of Afghanistan participated. The study found that social media addiction existed at various levels among the respondents. Findings confirmed both theories regardless of the sociopolitical environment such as political stability, low literacy level, a weak economy, and conflict in the least developed countries like Afghanistan. Besides that, the result showed that Facebook was the leading, regularly used social media platform among other online platforms. Facebook was used for social purposes and mostly for obtaining news and maintaining relationships. These findings mainly confirm the main argument of the Media Systems Dependency theory.

Keywords: Social Media Addiction, The least developed countries, Uses and Gratifications, Media System Dependency, Khost, Afghanistan

Introduction

The rapid growth and popularity of the internet and social media have attracted people of all ages worldwide (Murat KIRIK, 2015). Internet and social media users are continuously increasing every day. According to Hootsuite's digital yearbook in January 2020 more than half of the world's population (59%) or 4.54 billion people were using the internet and 3.80 billion people were actively using social media, while these number in 2019, and 2017 were 4.338 billion (internet users), 3.484 billion (social media users) and 3.773, 2.789 billion users respectively (KEMP, 2017, 2019b, 2020).

Although social media has turned into a commonly used platform on the internet and remained as one of the important communication and interaction tools among individuals (Kırcaburun, 2016), concerns have been rising due to its addictive usage. The term "addiction" generally refers to those psychological or physical inability to stop an activity or something else, causing many psychological and physical harms, such as over usage of drugs, alcohols, internet, social media, smartphone, and videogames (Saripalli, 2018). Although there is no exclusive definition for internet addiction, addicted people are generally explained, "who have trouble filling personal and professional obligations because of their online activities, and their use of the internet causes strain on relationships with family and friends. They experience negative emotions or withdrawal symptoms when their internet access is restricted" (abridge version) (Mental Health America, 2019). Social media addiction can also be defined exactly similar to internet addiction as it is a type of internet addiction.

Since the emergence of social media, scholars mainly focused on the opportunities provided by social media, whereas, over the last decade scholars' attention have been turning into the dark sides of social media such as fake news, cyberbullying, trolling, privacy abuse and its problematic usage (Baccarella et al., 2018). The excessive or addictive use of social media is one of the dark sides of social media that gained scholars' attention across the globe. Earlier studies reported that young adults are more vulnerable due to their excessive interest in using social media (Andreassen et al., 2017). Some other studies revealed that this excessive interests of adolescents in using social media have adverse effects on their behavior, interpersonal relationships, social-behavioral values, academic performance and other psychological disorders (J. Al-Menayes, 2015; JEPNGETICH, 2016; Joo & Teng, 2017; Murat KIRIK, 2015; Rahman, 2014). So, the excessive or addictive use of internet-social media has harmful consequences, especially among the young generation.

Though considerable research has been devoted to internet/social media addiction and its adverse effects on users in developed or in developing countries (Gazi et al., 2017; J. Al-Menayes, 2015; Kirik et al., 2015; Kırcaburun, 2016; Wang et al., 2018), somewhat less attention has been paid to investigate this phenomenon in the least developed countries such as Afghanistan. Therefore, this study attempts to investigate university students stationed in Khost Province of Afghanistan to identify whether they are addicted to social media and to what extent. The study also examines, which social media platforms students use the most regularly and to identify the students' gratifications of using these social media platforms. Importantly we attempt to determine whether media systems dependency and uses and gratification theories in developed and least developed countries are equally applicable or not.

Material and Method

The dataset used here was mainly developed for the article ‘The relationship between social media addiction and depression: a quantitative study among university students in Khost, Afghanistan’ published in T & F journal International Journal of Adolescence and Youth, 25(1), pp. 780-786 (Haand & Shuwang, 2020), which was focusing and investigating the relation and correlation between social media addiction and depression. However, this paper studies the existence and level of social media addiction mainly in the least developed countries. It is because the addiction phenomenon in developed countries has attracted greater scholarship. This study, however, is an attempt to bridge the gap between developed and the least developed countries regarding the existence and level of social media addictions.

Theoretical Framework

Numerous theories interpret the use of social media and the consequences due to its usage. Nevertheless, the two theories naming Uses and Gratification and Media Systems and Dependency, are directly relevant to the nature of this study. This research is based on these two theories, and they together indicate that the users of the media relied upon to fulfill their particular needs and desired gratifications. These theories can help to examine and conceptualize social media addiction and its usage. Each of them is explained in detail below.

Uses and Gratifications Theory

The theory, Uses and Gratifications, has a long history in mass communication studies. The main purpose of this theory is to understand how, why, and what media people use in their daily lives, and most importantly, the reasons behind their use of a particular media or media content. At the beginning of communication studies, scholars developed an approach for understanding the gratifications of mass media users that divert their attention to a particular media and contents as well as their own needs (Weiyan, 2015). Uses and Gratifications theory is one of these theories framed by Elihu Katz, Jay Blumler, and Michael Gurevitch in the 1970s (Littlejohn & Foss, 2009).

This theory is an audience-centered approach that focuses on what people do with media (Katz et al., 1974, cited in Quan-Haase & Young, 2010) in opposing what media do to the people (e.g., hypodermic needle/ bullet theory). Some scholars explained Uses and Gratification as “Use means selectively using media expected to satisfy users’ needs and Gratification refers to the degree of satisfaction acquired in the process of using media” (Chung, Koo, & Park, 2012, cited in Warwimbo, 2015). At the beginning of proposing this theory, the approach was focused on conventional media such as radio, newspaper, and television. A drastic advancement in communication technology, mainly internet and social media, this theory got new momentum and significance, especially since the last decade with a drastic advancement of social media (Tanta et al., 2014). Therefore, Uses and Gratification Theory was chosen for this study to examine the gratification of using social media platforms among the public and private university students of Shaikh Zayed, Ahmad Shah Abdali, and Pamir universities in Khost province.

Media Systems Dependency Theory

This theory fundamentally proposes that the audience uses mass media purposively, and media consumers mostly care about their particular needs to satisfy them from whatever the media they prefer. Now, with the dramatic development of Internet-based new media, in terms of audience number, the market for media is much competitive. Since the consumers of both mass and Internet media are not limited to a single form of media they have the choice to

select freely their preferred one according to their personal needs (John William & Hitoshi, 2016). This theory was developed by Sandra BallRokeach and Melvin Defleur in 1976 (Luo, 2018) and explains that the more an audience depends on a particular media to meet his/her specific goals, the more he/she uses the medium and will become significant to him/her. Therefore, this theory can predict that the popularity of social media platforms can project the dependency of social media users on the medium (Ha et al., 2013). To understand students' dependency on social media, Media Systems Dependency, or simply Dependency Theory is chosen for this research.

Participants and Sampling

The participants were undergraduate students of Shaikh Zayed (public), Ahmad Shah Abdali, and Pamir (private) universities in Khost province of Afghanistan. A sample of 384 students were participated in the study, and a 100% response rate was achieved. Yamane's formula was used for calculating sample size [see (Singh & Masuku, 2014)]. The probability sampling method was used, after which stratified random sampling was applied to select the participants in the survey. The majority of the respondents were male students, while only 6% of them were female. Nearly all the respondents were aged between 18-25 years old (mean, 21.73; SD, 2.05). See Table 1 for the details.

Table 1. Demographical statistics of the participants.

Variables		Frequencies (N)	Percentages (%)
Gender	Male	361	94
	Female	23	6
Age	18-25	374	97.4
	26-35	10	2.6
Marital Status	Single	293	76.3
	Married	91	23.7
University	Public	322	83.9
	Private	62	16.1
Year of Education	Freshmen	83	21.6
	Sophomore	106	27.6
	Junior	100	26
	Senior	95	24.7
Do you use social media?	Yes	375	97.7
	No	9	2.3
What device do you use for social media?	Smartphone	362	94.3
	Computer or other	13	3.4
Where do you live?	Remote rural areas	139	36.2
	Hostel/urban areas	245	63.8
Student type	Full-time student	259	67.4
	Part-time student	125	32.6

Instruments

A self-administered questionnaire was the main instrument in the study. Firstly, the questionnaire was translated into the local language Pashto and then translated into English by an expert in English language literature to establish the comparability and to resolve any discrepancies. Secondly, before distributing the questionnaire to the target sample size, both pre-test and a pilot test were used to validate the instrument. Ten active social media users were involved in the pre-test, who was asked to comment on the structure and wording of the questionnaire's items and to adjust the length of time they would be spending on responding to the questionnaire. The pilot test was conducted on a sample of 42 self-selected students. Based on their feedback at both tests, the questionnaire was then modified to make it more transparent and comprehensible. Both the questionnaire and measurement were proven reliable (Cronbach's alpha above 0.80).

Measures

Social Media Use

Along with the participants' personal information, some questions were asked to identify how the respondents use social media. The respondents were asked about whether they use social media or not, which social media platform they subscribed to, the gratifications they used social media for, and how much time they spent online or how often they visited the relevant social media platforms daily.

Social Media Addiction

Kimberly Young's Internet Addiction Test (IAT) was used for measuring social media addiction. Even though IAT is specially designed for measuring Internet addiction, we replicated this test for measuring social media addiction. Using social media is also an Internet-based online activity which can still be said it is a type of Internet addiction. IAT has 20-items, and all these items were answered on a five-point Likert scale (0 = Not Applicable, 5 = Always). IAT covers the degree to which their internet use affects their daily routine, social life, productivity, sleeping pattern, and feelings. The minimum score is 30, and the maximum is 100. The higher the score, the greater the addiction level (Young, 1998).

Data Analysis

A quantitative approach was utilized in the data analysis, and to draw a conclusion descriptive statistical analysis, T-Test, and One-Way ANOVA were applied on the data. SPSS 21 was used for all data analyses.

Findings

Social Media Use

The findings indicated that nearly all the students were subscribed to at least one social media platform. Facebook was found as the dominant and regularly used social media platform among the respondents. The participants were used social media for obtaining news and maintaining relationships. Table 2 presents all these findings in detail.

Table 2. Social media use

	Variables	Frequency (n)	Percent (%)
What accounts do you have?	Facebook	364	97.1
	Twitter	93	24.8
	Instagram	91	24.3
	Facebook Messenger	311	82.9
	WhatsApp	195	50.8
	IMO	111	28.9
Which of those social media platforms do you use regularly?	Facebook	358	95.5
	Twitter	61	16.3
	Instagram	40	10.7
	Facebook Messenger	275	73.3
	WhatsApp	135	36
	IMO	57	15.2
What do you use social media for?	News	305	81.3
	Entertainment	239	63.7
	Meeting new people	161	42.9
	Maintain Relationships	248	66.1
	Social Events	190	50.7
	Express and Share Opinion	190	50.7
	Social Interaction	166	44.3

Social Media Addiction

Out of the total sampled students, 370 students responded to the IAT while the remaining 14 students did not respond, and they were excluded. Overall a mild level of social media addiction was found among the participants. Since the mean score on addiction was found (mean, 38.12; SD, 17.36), according to the IAT scale, the score in a range of 31-49 is recognized as the mild category of addiction. From the other angle, the majority of the participants were found at a mild level, less than a quarter of other were moderately addicted to social media, while more than a quarter of other respondents were recognized as ordinary social media user. The moderate category scored between 50 to 79 points, where the normal category did not cross the score for any addiction level. The remaining (5.7%) students obtained score was 80 or more than and identified as severely addicted students. Furthermore, it was found that the respondents spent an average (mean = 3.9, SD = 1.189) hours online on social media daily, and they visit or use the relevant social media platform several times in a day. Table 3 reveals this result in detail.

Table 3. Social media addiction

Variables		Frequency(N)	Percent (%)	Mean	SD
On average, how much time do you spend on social media daily?	Less than one hour	31	8.3	3.9	1.189
	One hour	88	23.5		
	Two hour	133	35.5		
	Three hour	69	18.4		
	Four hour	47	12.5		
	Five or more than	7	1.9		
On average, how often do you visit or use social media daily?	Several times a day	219	58.4	1.81	1.245
	About once a day	85	22.7		
	A few days a week	30	8.0		
	Every few weeks	5	1.3		
Level of Addiction	Less often	36	9.6	38.12	17.36
	Mild	154	40.1		
	Moderate	63	16.4		
	Normal	131	34.1		
	Severe	22	5.7		

T-Test (T-test) was applied to study social media addiction among married and unmarried students and the result showed that there was not a significant difference among both categories of students conditions; $t(368) = -.195$, $p = .845$. As $p > 0.05$. Furthermore, the t-test result revealed that the students from both public and private universities are mildly addicted to social media and there is not a significant difference; $t(368) = -2.192$, $p = .29$. Likewise, there was not any difference between full-time and part-time students in terms of social media addiction, conditions; $t(368) = -1.74$; $p = .082$. In addition, the T-Test result showed that students from both urban and rural areas are equally addicted to social media and the residential areas do not make the difference; conditions, $t(368) = -1.46$; $p = .143$. Table 4 shows the results for t-tests.

Table 4. T-test results of the difference between the total score in addiction and other grouping variables marital status, university, full/part-time student, and residential areas.

	Variables	N	Mean	SD	df	t	Sig
Score on Addiction	Single	281	38.02	17.35	368	-.195	.845
	Married	89	38.43	17.47	147.01	-.195	.846
Score on Addiction	Public University	311	37.26	16.91	368	-2.192	.29
	Private University	59	42.64	19.05	76.32	-2.022	.47
Score on Addiction	Full-time student	248	37.02	17.34	368	-1.74	.082
	Part-time student	122	40.36	17.24	242.06	-1.74	.082
Score on Addiction	Urban	234	37.11	16.35	368	-1.46	.143
	Rural	136	39.86	18.90	250.52	-1.41	.159

Moreover, the One-Way ANOVA test showed [$F(3, 366) = 1.183$; $p = .316$] that there is no statistically significant difference between the four categories of students (freshmen, sophomore, junior, senior) in terms of social media addiction score. Unsurprisingly, as it was

expected, the findings showed that those students who spend much time online on social media [F (5, 364) = 22.685; p = .000] or visit social media more frequently [F (4, 365) = 4.813; p = .001] are more addicted than those who spend less time online or visit relevant social media platform less often. Those respondents who spent five or more than five hours on social media, their mean addiction score was (mean = 78.57), which is higher than those who spent one or less than one hour on social media (mean = 31.25). On the other hand, an average score of the respondents who visited social media several times a day was (mean = 41.18) in the addiction test, while those who visited social media less often scored (mean = 30.8). Table 5 presents the results for ANOVA, and Figure 1 shows the difference between social media addiction scores and the time students spent online.

Table 5. One Way ANOVA test results for the difference between the dependent variable (score on addiction) and independent variables.

Score on addiction						
Independent variables		Sum of Squares	df	Mean Square	F	Sig.
Year of Education (freshmen, sophomore, junior, and senior)	Between Groups	1068.151	3	356.050	1.183	.316
	Within Groups	110150.130	366	300.957		
	Total	111218.281	369			
The amount of time you spend online on social media daily.	Between Groups	26423.196	5	5284.639	22.685	.000
	Within Groups	84795.085	364	232.954		
	Total	111218.281	369			
How often you visit social media.	Between Groups	5572.328	4	1393.082	4.813	.001
	Within Groups	105645.954	365	289.441		
	Total	111218.281	369			

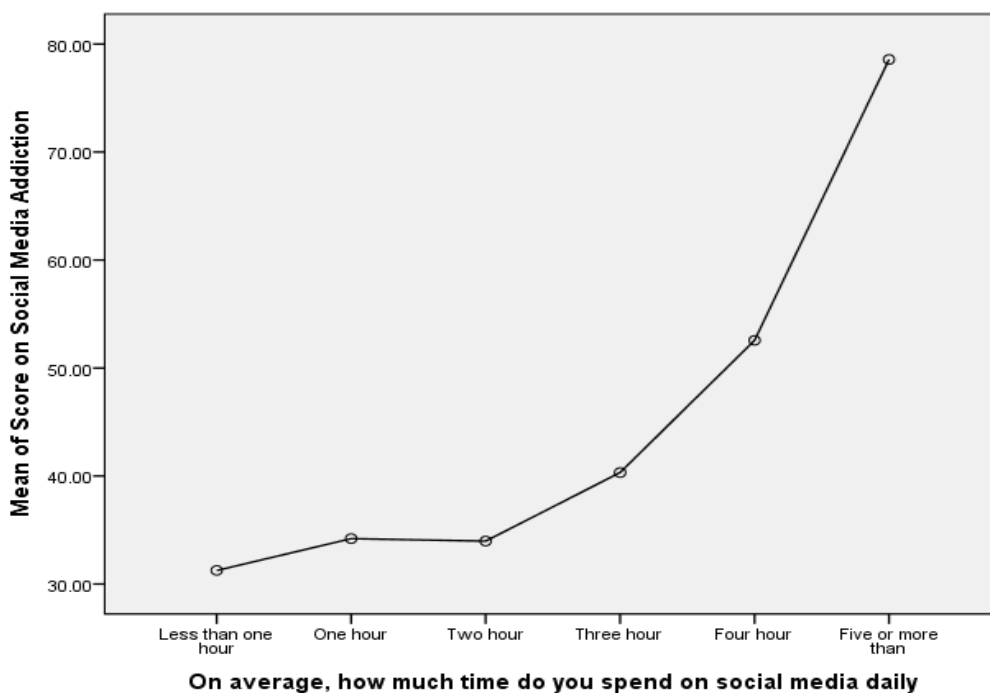


Figure 1: The difference between social media addiction scores and the time students spend online.

Discussion and Conclusion

The majority of the respondents were male students, while only 6% of them were female. That was almost the exact reflection of the current students' population of the selected public (SZU) and private (PMU & ASAU) universities' students in terms of gender. According to Afghanistan Statistical Yearbook in 2018/2019, the number of female students was quite less than male in the target population (female $n = 349$ & male $n = 9001$) (Afghanistan Statistical Yearbook, 2018). Therefore, gender was not considered in the study due to the presence of quite less number of female students in the target population.

The main objective of the study was to examine the existence of social media addiction among university students, whether they are addicted or not, and to what extent they are addicted. In general, the findings confirmed the existence of social media addiction at various levels among the participants. The majority of the respondents were found as mildly addicted to social media. The mild level of addicted users refers to those who overuse social media but have control over it and may not cause any significant problem. Less than a quarter of the respondents were found at a moderate level of addiction, and this category of students may occasionally experience problems in their daily lives. At the severe level of social media addiction, we found 5.95% of respondents were experienced severe addiction, and it may usually cause significant problems in their everyday lives. The remaining more than a quarter of the participants were not addicted to social media.

In terms of social media addiction, the findings demonstrated that there is no significant difference among students' marital status; year of education; full-time or part-time student; residential region, and the universities where they study. It might be because the target population was more homogenous than heterogeneous. The homogeneity of the population was namely: 1- all of them were undergraduate students 2- the vast majority of the respondents were at similar age 3- nearly all of them were using smartphones for social media 4- most of the students were unmarried, lived in a hostel or urban areas, and were full-time students.

Unsurprisingly, the study found that the more the respondent spends time online or frequently visits social media, the higher the person is addicted to social media, and the less the respondent spends time online or less often visits social media, the lesser the respondent is addicted to social media. This result confirms the findings of J. J. Al-Menayes 8, A. M. Kirik, A. Arslan 13 studies; Kirik's study found that visiting social media more frequently increases the addiction level whereas J. Al-Menayes's study reported 'spending more time online' as a dimension of social media addiction.

All these findings mainly confirm the main argument of the Media Systems Dependency theory. The theory focuses on media consumers' dependency on a particular media or content to satisfy their own needs. This study mainly found the existence of social media addiction at various levels, but overall, it was not at a harmful level to be treated. So, it can be said that the respondents are mostly dependent on a particular social media platform (Facebook) or other alternatives to meet their needs (mostly obtaining news and maintaining relationships) while using a particular platform.

Theoretical Implication

The Uses and Gratifications theory is an audience-center approach which that mainly focuses on what the people do with media channels in opposing what the media do to the people. This theory argues that media consumers selectively use media channels to meet their needs and expect to satisfy pleasure. On the other hand, the theory Media Systems Dependency focuses on the dependency of the audience on a particular media and argues that the more an audience depends on a particular media to meet his/her specific goals, the more he/she uses the medium and will become significant to him/her. These theories are tested in many studies related to communication in various countries; however highly likely, these theories are not tested in the least developed countries like Afghanistan.

Afghanistan is one of the less developed countries in South Asia. According to World Bank GDP per capita, Afghanistan was estimated 520.9\$ in 2018, and in Human Capital Index (HCI), the country was ranked 0.39 from the scale 0-1(World Bank, 2018). Overall the literacy level is approximately 32% of the total population (KEMP, 2019a). In terms of insecurity and political stability, Afghanistan witnessed a high number of casualties. To date, 1366 civilians were killed in 2019 and 2446 other wounded in conflicts among government, the Taliban, Islamic State of Iraq and Syria (ISIS), and foreign troops (UNAMA, 2019). Since the last quarter of the 20th century to the very first years of the 21st century, the country has experienced civil war and political instability. Although the country has a relatively stable political system, in pursuit of power, Afghanistan has been intermittently interrupted by armed opponents' security incidents since the collapse of the Taliban in late 2001.

Against this backdrop, our research findings confirm that the Uses and Gratifications and Media Systems Dependency theories are equally applicable regardless of political stability, low literacy level, weak economy, and conflict. In other words, people use media for the same reasons and are dependent on media systems similarly in developed and least developed countries.

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