RESEARCH ARTICLE

PERSONALITY CHARACTERISTICS, MOTIVATIONS AND USAGE PATTERNS OF SOCIAL NETWORKING SITES AMONG UNIVERSITY STUDENTS

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ABSTRACT

The Social Networking Sites (SNS) are popular these days among all ages, especially in the young population. Social Networking Sites (SNS) which is an online platform that allows users to create a public profile and interact with other users on the website. A social networking site may also be known as a social website or a social networking website. This study is designed to define the user profile that can be accepted as dependent to SNSs. The aim of this study was to offer more knowledge and better understanding of compulsive use of SNSs among university students particularly investigating the effects of sex differences, motivational factors and personality on SNS addiction. The independent variables were sex differences, personality traits and personal motives for using SNS, and the dependent variable was the frequency of social networking sites usage. This research found that there is no effect of personality traits and only a slight difference between men and women on SNS addiction. Only relaxing and entertainment motivation predicted SNS addiction.

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ARAŞTIRMA MAKALESİ

ÜNİVERSİTE ÖĞRENCİLERİNDE KİŞİLİK ÖZELLİKLERİ, MOTİVASYON FAKTÖRLERİ VE SOSYAL AĞ SİTELERİNİN KULLANIM BİÇİMLERİ

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ÖZET

Sosyal ağ siteleri (SAS) bu günlerde tüm yaş gruplarında oldukça popüler hale gelmiştir ve özellikle genç nüfusun da ilgisini çekmektedir. Bu ortamlar kullanıcıya kamuya açık bir profil oluşturma imkanını ve diğer kullanıcılarla etkileşim olanağını sağlar. Bir SAS sosyal bir internet sayfası olabileceği gibi sosyal ağ sitesi üzerinden edinilmiş bir site de olabilir. Bu çalışma sosyal ağ sitelerine bağlı kullanıcı profilllerinin tanımlamalarını incelemek için tasarlanmıştır. Çalışmanın amacı ise üniversite öğrencilerinin sosyal ağ sitelerini kullanmaya iten faktörleri daha iyi anlamak ve bu konuda daha kapsamla bilgi sunabilmektedir. Çalışma kapsamında özellikle cinsiyet, motivasyon faktörleri ve kişilik değişkenlerinin SAS bağımlılığı üzerindeki etkisi incelenmiştir. Çalışmanın bağımsız değişkenleri cinsiyet, kişilik özellikleri ve SAS kullanımına yönelik kişisel sebepler iken bağımlı değişken SAS kullanım sıklığı olarak belirlenmiştir. Çalışma sonucunda kişilik özellikleri ile SAS bağımlılığı arasında anlamlı bir ilişki bulunmamakla beraber cinsiyet farklılığının SAS bağımlığı üzerinde kısmi bir etkisi olabileceği saptanmıştır. Motivasyon faktörlerinden ise sadece rahatlatma ve eğlence motivasyonlarının SNS bağımlılığını yordadığı bulunmuştur.

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Introduction

In the past decades, Internet has become the main source of information. According to the data updated and published by the Internet World Stats website (2013), 39.0 % of the world population uses the Internet. For example, over 200 million people in the United States, or 62.3% of the population, use the Internet in 2013. In Turkey, 46.3% of population use Internet according to the same data. People also use Internet for entertainment, marketing and communication purposes. People have different patterns of Internet use according to researches. These are positive and healthy use of the Internet or problematic use which is associated with risks and negative consequences (Brenner, 1997; Chou, Condron & Belland, 2005). According to Davis (2001) the "healthy internet use" has been defined as using the Internet within a fixed time with no conceptual or behavioural difficulties for achieving a specific aim. The problematic use of Internet is referred differently by the researchers such as Goldberg (1997) who referred to it as "internet addiction", Scherer (1997) called it "internet dependency", Davis (2001) termed it as "pathological internet use" and Davis, Flett, and Besser (2002) as "problematic internet use". The common feature in all these definitions is that they emphasize the amount of time which is spent on the Internet, unease and irritability observed at times of no Internet use, and a need to spend even more time online (Young & Rodgers, 1998). One significant measure of Internet dependency is the frequency of daily or weekly use. According to Young's study (1996), people who are considered dependent to the Internet spent significantly longer time than non-dependents. Dependent group spent 38.5 hours ($SD = 8.04$) per week online whereas non-dependents spent 4.9 hours (SD = 4.70) per week. Another study came from Kim and Kim (2002) which indicated that people who are dependent use the Internet about 7 hours a day (416 minutes), and non-dependents use about 4 hours(238 minutes) a day. More recent study from CBS News National showed that dependent group use Internet more than 30 or 40 hours a week for the purpose of social networking, checking emails and playing computer games. (CBS News, 2008) In this regard, pathological Internet use creates behavioural patterns which effect people like other behavioural and chemical substance addictions (Young, 2005). According to the World Health Organization (1994) and Diagnostic and Statistical Manual of Mental Disorders (2001), the word "addiction" means a person's physical and psychological dependency on an activity, drink or drug and is beyond conscious control and the use of a drug or an activity is given a much higher priority than other behaviours that once had higher value (e.g. work, family). The symptoms of internet addiction are that "there is a strong desire to engage with internet, an impaired capacity to control the internet usage (especially failed with time management), discomfort and/or distress when the internet usage is prevented or ceased and persistence of using internet despite clear evidence that it is leading to problems and harming the person (Gossop, 1989)". As it is evident, the definition of problematic use of internet highly overlaps with the definition of addiction.

The majority of previous literatures have focused on general Internet use as opposed to specifically the use of Social Networking Sites (SNS) which is an online platform that allows users to create a public profile and interact with other users on the website (Ellison, 2007). A social networking site may also be known as a social website or a social networking website. The first SNS site was called SixDegrees and it was launched in 1997 for commercial use. Currently, the most successful and popular SNS is Facebook which was established by Marc Zuckerberg as a closed virtual community for Harvard students in 2004 and it is currently accessible to anyone with an e-mail address. According to the statistics from The Nielsen Company (2009), the site expanded very quickly and it currently has 1.35 billion monthly active users from all around the world. 50% of the users check (log-on) their account every day. Moreover, overall time spent on Facebook has increased steadily by 566% from 2007 to 2008. This steady increase of using SNS such as Facebook can be an indication that the use of SNS contributes to or maintains the problematic patterns of Internet use. According to Kuss and Griffiths (2011) internet users continue to spend more time with social networking sites than any other type of sites. There are different types of social networking sites which are used for mobile connectivity, photo/video/sharing and blogging. As well as aforementioned Facebook, Instagram, MySpace, LinkedIn and Twitter are also other examples of commonly used social networking sites which are used to create an online network to share information (personal pictures, videos, interests and preferences) with real-life friends, and meet other people based on shared interests (Wilson, Fornasier, & White, 2010).

Some studies have examined how personality relates to using social networking sites. The Five-Factor Model (FFM) is a broad classification of personality traits. The model separates the human personality into five dimensional traits (McCrae & Costa, 1997). The Big-Five framework is a model of personality that contains five factors representing personality traits at a broad level: extraversion, neuroticism, openness to experience, agreeableness and conscientiousness. Each factor is bipolar (e.g. extraversion vs. introversion) and summarize various specific aspects (John & Srivastava, 1999). The first type, neuroticism, reflects a person's tendency to experience psychological distress and high levels of this trait are associated with a sensitivity to danger. Extraversion, the second type, reflects a tendency to be sociable and able to experience positive emotions. The third type, openness to experience, represents an individual's willingness to consider alternative approaches, be intellectually curious, and enjoy artistic pursuits. Agreeableness, the fourth type, is another aspect of interpersonal behavior, reflecting a tendency to be trusting, sympathetic, and cooperative. The fifth dimension, conscientiousness, reflects the degree to which an individual is organized, diligent, and scrupulous.

Some of the studies indicated that there was a relation between internet use and personality. In particular extraversion and neuroticism were found to be significantly related to internet use (Amichai-Hamburger, Wainapel & Fox, 2002). It was found that people who are high in extraversion and low in neuroticism were not as heavy Internet users as their more introverted, more neurotic counterparts. According to Ross et. al.(2009), in examining personality as a potential predictor of use of social networking sites, three of the five factors showed promise: extraversion, neuroticism and openness to experience. The potential reason for why extraverted individuals are using more SNS is that they had many connections with others in ''real world" and it also affect their online networking connections on SNS (Zywica & Danowski, 2008). In terms of neuroticism, the differences are due to neurotic people tending to prefer instant messaging than face-to-face interaction because instant messaging permitted additional time to contemplate responses, making it easier for more neurotic people to communicate with others (Ehrenberg et al., 2008). The characteristics of people who are more open to experience are that they more curious and novelty-seeker and its may be linked with their SNS usage pattern because SNS are relatively new application for internet users for this reason they want to experience new sites due to their curiosity and spent more time on SNS because of this reason. Apart from SNS, according to Huang et al. (2010), internet addicts score significantly lower on extraversion compared to non-addicted adolescents and have low emotional stability, and low agreeableness. Therefore, various personality traits might be a good predictor of SNS addiction and requires further investigation.

In addition to personality, other researchers have tried to identify personal motivational differences toward SNS usage. According to Smock et al., (2011) nine different motives affect people's SNS usage. These motives are Relaxing Entertainment, Expressive Information Sharing, Escapism, Cool and New Trend, Companionship, Professional Advancement and Social Interaction, Habitual Pass Time, to Meet New People. And also, they found some of the motivations behind using SNS use differ from culture to culture. Wijesundara (2014) adopted Smock factors and divided them into 6 factors of motivation for SNS using as;

1. Passtime and Companionship, (e.g. "Because it makes me feel less lonely")
2. Relaxing Entertainment, (e.g. "Because it relaxes me")
3. Escapism and Trend, (e.g. "So I can forget about school, work, or other things")
4. Professional Advancement, (e.g. "It is helpful for my professional future")
5. Social interaction, (e.g. "To communicate with distanced friends")
6. Expressive Information Sharing, (e.g "To provide personal information about myself")

Wijesundara's six dimensions were used for this study because Wijesundara reported that after factor analysis, nine dimensions of Smock were broken into six dimensions. Only two dimensions contain the same items as in the original scale. Those were professional advancement and social interaction. Therefore, this study used Wijesundara's six dimensions for measuring the motivational factors of university student's usage patterns of SNS.

According to a more recent study which was conducted by Special and Li-Barber (2012), the strongest motivator for using SNS was relationship maintenance and this was followed by passing time and entertainment. On the other hand, coolness, virtual community and companionship were found to be less important motivators for using SNS. According to this previous literature, people use SNS because of keeping in touch with their relatives and hang-out on SNS.

Based on previous literature, this study is designed to define the user profile that can be accepted as dependent to social networking sites (SNS). The aim of this study is to offer more knowledge and better understanding of compulsive use of social network sites (SNS-addiction) among university students. One of the recent studies about SNS addiction was conducted among the young population which are born between 1970s and the early 2000s. This population is called the Y generation in the literature. This population is more familiar with the technological advances, such as internet and computers. This generation is more likely to use social networking sites than older generations (Cabral, 2011). For that reason this study addresses especially the university students in Turkey, because they are more familiar with the technological advances and more likely to become dependent on social networking sites (Scherer, 1997).

This study expected to determine the effects of sex differences, motivational factors and personality on compulsive use of SNS among university students. The research question identified for this study was: "What are the factors that predict the compulsive use of social networking sites among undergraduates in Turkey?". The hypothesis was that there would be a relationship between sex, personality, motives and compulsive use of online social networking sites. The independent variables were sex, personality traits and personal motives for using SNS, and the dependent variable was the frequency of social networking sites usage. The hypotheses were:

1) Female sex will predict more frequent SNS use.
2) Conscientiousness will predict less frequent SNS use.
3) Neuroticism will predict more frequent SNS use.
4) Extraversion will predict more frequent SNS use.
5) Social interaction (communicate with distanced friends etc.) motivation will predict more frequent SNS use.
6) Relaxing Entertainment (enjoyable, allows to unwind et.) motivation will predict more frequent SNS use.

Method

Participants

The participants were 101 university students. 52 of them were female and 49 of them were male. The age range was between 18 to 48 years old ($M=$ 23.74, $SD=$ 5.16). 8.9% of participants were in their first year at university, 14.9% in their second year, 12.9% in their third year, 27.7% in their fourth years, 16.8% in their sixth or more years and 10.9% in their sixth or more years as a graduate student.

36.6% of students have revealed that they spent between 1-3 hours, 32.7% of them had surfing time between 3-6 hours and 30.7% of the students have declared that they spent more than 6 hours by using SNS. According to the Bergen Facebook Addiction Scale, 7 of participants could be classified as severely addicted, 27 of them as moderately addicted, 41 of them as mildly addicted and 26 of them as minimally addicted to Facebook.

Measures

Bergen facebook addiction scale (BFAS)

BFAS includes 18 items, three for each of the six core features of addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse. The scale was developed by Andreassen, Torsheim, Brunborg and Pallesen (2012) Each item is scored on a 5-point scale using anchors of 1 (Very rarely) and 5 (Very often). The minimum score on BFAS is 18 and the maximum score is 90. Higher scores indicate greater Facebook addiction. The scores which are below 24 indicate minimal addiction, scores between 25 to 43 indicate mild addiction, scores between 44 to 63 indicate moderate addiction and scores above 64 indicate severe addiction to Facebook. BFAS was used to determine whether the participants were dependent on SNS or not. The factor structure of the scale had values of $\chi^2/df=$ 1.84, RMSEA= .046 and CFI= .99 which showed a good structure. Also its Cronbach's Alpha was .83 in total. The 3-week test-retest reliability coefficient was .82. In the current study, the Cronbach's alpha for the BFAS was .95. Explained variance for the scale was calculated as 58.4%. The results of confirmatory factor analysis demonstrated that the 18 items loaded on six

factors (salience, tolerance, mood modification, relapse, withdrawal, and conflict). The internal consistency reliability coefficients of the subscales were .74, .81, .85, .76, .90, .80, respectively and .93 for overall scale.

Amount of the internet usage

Self-Report online survey was developed by researchers to use to determine the amount of time participants spend on the internet. There were 3 ordinal clusters which were 1-3 hours, 3-6 hours and more than 6 hours. Participants selected their amount of internet use from the list. Additionally, there was some demographical questions such as age, sex and number of years in university. Whether having a facebook account is also requested to answer from the participants.

Motives of facebook use scale

The Motives for Facebook Use Scale was developed by Papacharissi and Mendlson (2011). The motivational factors were relaxing entertainment, expressive information sharing, escapism, cool and new trend, companionship, professional advancement, social interaction, habitual pass time and meeting new people according to this measure. This scale consists of 35 questions on a 5-point Likert-type scale questions from Strongly Agree to Strongly Disagree. The minimum score for the scale is 35 and the maximum one is 175. Higher scores for each motivator factor means greater motivation to use Facebook.The Cronbach's alpha for each factor in the scale was .88, .86, .67, .82, .77, .79, .74 and .85 respectively above. The motive of meeting new people was assessed with a single-item in the scale. The internal consistency reliability coefficients of the subscales were .85, .85, .82, .80, .83, .80, .75, .83 and final factor was a single item factor ("Meet new people"), explaining 4.3% of the variance. Explained variance for the total scale was calculated as 69%.

Personality

Big Five Personality Inventory (1997) was used to measure the five personality traits that are Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness The response scale is a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).. There are 44 items on this scale and 15 of them are reverse items. In order to scoring the reverse item, the item scores change 1 to 5, 2 to 4, 4 to 2, and 5 to 1. After reverse scoring, the total score for extraversion, agreeableness, conscientiousness, neuroticism and openness are calculated. Scoring is based on a personality factors and the score range for extraversion and neuroticism is 8 to 40, the score range for conscientiousness and agreeableness is 9 to 45 and the score range for openness factor is 10 to 50. Higher scores on a trait indicate having higher characteristics on this trait. Cronbach's alpha for the BFI was .791 for this study.

Procedure

Participants voluntarily participated in the study and they were asked to fill an online survey. A self-administered online questionnaire which includes close-ended questions was used. Participants were accessed to fill this questionnaire through a wall-post on Facebook, so convenience sampling method was used. In convenience sampling, researchers reach participants who they are willing and available to be studied. In these circumstances, researchers cannot claim that the individuals are representative of the population (Creswell, 2012). For this reason, the present study was not generalized to any populations. It can show only particular characteristics of the participants and the results of hypotheses testing in the study. The online survey included questions about their demographic information, personality traits, SNS usage patterns and their motivational factors. Before starting the survey, informed consent was obtained from all participants. The survey typically lasted 15–20 minutes to complete and it consisted 3 main parts which were about their sex, personal motives and differences in personal characteristics as well as a question asking about the amount of time they spent on the Facebook. When participants finished the survey, debriefing appeared on the screen at the end of survey.

Results

In order to verify the hypotheses of this study, a variety of statistical analysis were conducted, including t-test, one-way ANOVA and multiple regressions. To identify sex differences on SNS addiction

which was measured by the Bergen Facebook Addiction Scale (BFAS), an independent sample t-test was conducted for female and male groups as shown Table 1 below.

Table 1. ??????????????????

Scale	Variable	Groups	N	X	SD	t	df	p
						t-test		
BFAS	Sex	Female	52	39.27	14.27	.675	99	.50
		Male	49	37.16	17.05			

According to the Table 1, there was not a marginal significant difference between females ($M=$ 39.27, $SD=$ 14.27) and males ($M=$ 37.16, $SD=$ 17.05) in the study ($t(99)=$ .675, $p=$ 0.50). These results suggested that sex differences may have no effect on SNS addiction. In parallel with this result, Hypothesis 1 had to be rejected.

A one-way between subjects ANOVA was conducted to compare the students who have been in the university for one year, two years, three years, 4 years, 5-6 years, 6+ years (undergraduate) and 6+ years (graduate students) in terms of their SNS addiction in Table 2.

Table 2.

Variable	Group	N	X	SD	Source	SoS	df	MS	F	p
		f , X and *SD*			ANOVA					
Number of Years in University	1 year	9	49.55	15.10	Between Groups	5065	6	844	4.09	.001
	2 years	15	41.13	16.70	Within Groups	19383	94	206		
	3 years	13	37.00	11.34	Total	24448	100			
	4 years	28	31.25	11.39						
	5-6 years	17	36.82	14.83						
	6 years (Und)	8	31.25	15.16						
	6 years (Grad)	11	51.63	18.64						

According to the Table 2, the number of years in university significantly affected the SNS addiction in the university students ($F(6, 94)=$ 4.09, $p<$.05). Post hoc comparisons using the Tukey HSD test indicated that the mean score for the 4 years students ($M=$ 31.25, $SD=$ 11.39) were significantly different than the first years students ($M=$ 49.55, $SD=$ 15.10). There was also a significant difference between 4 years students ($M=$ 31.25, $SD=$ 11.39) and 6+; graduate students ($M=$51.64, $SD=$ 18.65). And also, there was a significant differences between 6+ years (undergraduate) [$M=$ 31.25, $SD=$ 11.39] students and 6+ (graduate) [$M=$ 51.63, $SD=$ 18.65] students. In Table 3 below, ultiple Regression Analysis was used to test if the personality traits significantly predicted participants' SNS addiction, especially Facebook.

Table 3. The Unstandardised and Standardised Regression Coefficients For The Variables Entered Into Model

Variables	B	SEB	β	Sig.
Extravert	-0.42	0.34	-0.15	0.11
Agreeableness	0.26	0.36	0.80	0.21
Conscientiousness	-0.20	0.36	-0.06	0.47
Neuroticism	0.35	0.30	0.12	0.58
Openness	0.36	0.37	0.12	0.33

According to the Table 3, when the enter method was used, our model was not significant ($R^2=$.53, $F(5,95)=$ 1.05, $p=$.38). In addition to this, it was seen that none of the variables in the model was not statistically significant. These results suggest that personality traits did not significantly predict SNS

addiction in our sample. It also justified that Hypothesis 2, 3 and 4 was rejected in the study. In Table 4 below, Another Multiple Regression Analysis was used to test if the motivational factor for using SNS significantly predicted participants' SNS addiction, especially Facebook.

Table 4. The Unstandardised and Standardised Regression Coefficients For The Variables Entered Into Model

Variables	B	SEB	β	Sig.
Passtime	0.49	0.30	0.20	0.11
Relaxing Entertainment	0.57	0.28	0.22	0.04*
Escapism	1.06	0.58	0.21	0.06
Professional Advancement	0.41	0.51	0.08	0.42
Social Interation	-0.86	0.81	-0.09	0.29
Expressive Info Sharing	1.05	0.88	0.13	0.23

*$p<0.05$

In regard to the results of Table 4, our model was significant by enter method ($R2=.412$, $F(6,94)=10.98$, $p<.05$). The model explains 37.5% of the variance (Adjusted $R2=.375$). Table 4 gives the information for the predictor variables entered into model. It shows that only Relaxing Entertainment as a motivational factor was a significant predictor of SNS addiction. Hypothesis 5 was rejected whereas Hypothesis 6 was accepted according to these coefficients.

Discussion

This research sheds light on why some people use SNS more frequently than others. In this part, findings are critically examined in the light of the previous literature. This study found differences on university students SNS usage according to their years spent in university. For example, the students who are in their fourth year in university use SNS more frequently than first year students. There is another significant difference between graduate students and the students who are in the fourth year or sixth years as an undergraduate students, graduate students use SNS more frequently than students in their 4th years and 6th years in university as an undergraduate student. Some researches also showed that duration of the internet usage has changed by class level (Filiz, Erol, İnan-Dönmez & Aşkım-Kurt, 2014; Kim, Sin & Tsai, 2014). .It was interesting but meaningful result that graduate students used SNS more than undergraduate ones. In regard to the study of Meyer (2010), SNS and its applications have been found beneficial and effective in graduate-level workings. The possible reason for these differences may be explained that graduate students might have different motivations for SNS usage and this may be cause more frequent use, graduate students might be use SNS for their future professional advancement or first years students use SNS because of Social Interaction with their families or friends who are far away.

This study discovered that sex does not make a notable difference in the SNS addiction. However, there is a slight difference between male and female groups and females seem to be more likely to be addicted on SNS. Early studies indentified that men used the internet more than women counterparts and suggested this differences was due to the newness of the technology, asserting that technology remains as a male dominated field (Morahan-Martin, 1998). More recently, Young and Hall (2008) reported that sex differences are still observed especially due to privacy concerns on SNS for female users. However, another research finding concluded that there is no effect of sex on online communication (Thayer & Ray, 2006). Therefore, our studies indicated that new generation may be less privacy concerns for using SNS, so that we won't find make a notable difference. Future studies can also identify the link between the privacy concerns and SNS addictions according to sex differences.

Wang et. al. (2012) found that sex differences have an effect on predicting the different types of SNS use. For example, men reported more SNS friends and were more likely to play online games and women more likely to upload self-photo and update their status. And also, some research shows that women are more susceptible to spending more time than males on SNSs, and women suffer sleep problems much more than male due to SNS activity (Thompson & Lougheed, 2012). In 2011, nearly seven in ten online women are users of SNS, compared with six in ten online men (Pew Internet & American Life Project, 2011).To conclude; according to previous literature, women have

been significantly more likely to use SNS than man. This study may not identify strong differences between male and female groups due to some limitations. These limitations will be discussed later. Furthermore, it was found that there was no relationship of Social Networking Site (SNS) addiction with personality characteristics. However, according to Moore and McElroy (2012) more extravert people have more Facebook friends but surprisingly, extraversion was not significantly related to time spent on Facebook, number of photos or the number of wall postings. This may be due to they prefer face-to-face communication than online communication with their friends both real and online platforms. Also conscientiousness was not related to time spent, frequency of use, number of friends and number of photos. Another study from Ryan and Xenos (2011) found that there is a significant relationship between time spent on SNS per day and neuroticism and conscientiousness. According to Correa et al. (2010) there are a positive relationship between Extroversion and a negative relationship between Emotional Stability and Conscientiousness and time spent on the overall social networking sites. In addition, the main predictors of time spent using SNSs and Facebook were Extroversion and Emotional Stability. People who were high extroverted and low emotional stability would spend more time using SNSs. Hamburger et al. (2000) found neuroticism to be positively associated with individuals' tendencies to report that it was easier for them to express themselves to people online as opposed to face-to-face and they spent more time using SNSs due to this reason. However, this study cannot found a relationship between Social Networking Site (SNS) addiction with personality characteristics. The possible reasons behind it will be discussed in the limitation part.

The most important finding of this study was the relationship between motivational factor for using SNS and SNS addiction among university students. It was found that relaxing entertainment as a motivational factor was a significant predictor of the SNS addiction among university students. This finding was in accordance with some of the existing literature. For example, according to Smock et.al (2011) motives of relaxing entertainment, expressive information sharing, and social interaction are all predictors of excessive use of SNS. However, relationship maintenance motivator is the strongest one for using Facebook followed by passing time and entertainment. Tosun (2012) , mentioned that main motive is maintaining long-distance friendships for using SNS excessively. Giannakos, Chorianopoulos, Giotopoulos, and Vlamos, (2012) highlighted that social connection, social network surfing, wasting time and using applications are the factors to use SNSs. According to Wijesundara (2013), only one motivation (expressive information sharing) significantly predicts general use but five motivations (relaxing and entertainment, expressive information sharing, passtime and companionship, professional advancement and social interaction) significantly predict use of specific features like status updates, comments, wall posts, private messages, chat and groups. When we think about why relaxing entertainment is the only one motivation for SNS addiction from this perspective, we can easily explain it by self-medication theory of addiction. The theory of self medication explains addictive behavior as based on the idea that people use substances, such as alcohol and drugs, or the effects of other addictive behaviours, such as eating or gambling, to compensate for underlying problems that have not been adequately treated. So, we can conclude that SNS addiction share some component of other addictive behaviours. For example people use SNSs excessively in order to feel more relax and forget about the underlying problems without thinking it during SNSs use, it is like abusing a substance just like feeling more relax and forget about the underlying problems. So, Facebook addiction can be considered as "specific form of internet addiction".

Finally, this study had some limitations. One major limitation lied in the way of the data collection. The study employed online survey, thus, the results should be cautiously interpreted and respondents may not be fully aware of their reasons for any given answer because of lack of memory on the subject, or even boredom. Second, only one type of social networking site, Facebook, was assessed in this study as a SNS due to the lack of comprehensive instrument to measure SNS addiction, for this reason Bergen Addiction to measure SNS addiction. Third limitation was the limited sample size, as larger and more representative sample size is necessary in order to make more accurate predictions. Forth limitation was about the sampling procedure. In this study researcher post a survey-link on the Facebook and participants who have convenient accessibility in this link on Facebook, this was called convenient sampling method. Convenience sampling method is non-random sampling technique where subject are selected because of their convenient accessibility and proximity to the researcher. For this reason, the generalizability of the results may be limited. The last limitation was the length of survey; the online survey could be considered quite long for some participants and therefore could have affected the responses.

The main suggestion for future studies is about the sample size. Further studies can increase sample size and it would perhaps contributed to increase power especially to pick up the relationship between, if any, the personality characteristics and SNSs using pattern. In contrast to previous literature, this study couldn't found any significant relationship between personality differences and SNS addiction.

Future studies can use random sampling method as a sampling procedure which has good method for representing the population. As mentioned before, there is a need of comprehensive measurement tools for measuring SNS addiction. The future studies can develop a scale for measuring SNS addiction. Because this study had to use Bergen Facebook addiction scale to measure SNS addiction because of there is no comprehensive scale to measure other SNS in one scale. Especially there are new SNS sites become popular among university student like Twitter, Instagram, Vine, Snapchat. Even more, this SNSs may be take place the Facebook and used more frequently than Facebook. However these could not measure in this study, due to lack of comprehensive scale. Further studies can develop new scales both measure SNS addiction and motivational factors for each SNS (e.g. motivational factor for using Twitter etc.). Researchers should also introduce qualitative interview methods for in-depth understanding of user's using patterns and motivational factors for SNS.

To conclude, this research contributes some useful insights to the existing literature on SNS. If the motivational factors of addiction can be determined, by the way addiction can be predicted, prevented or controlled.

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