

Effect of Selfie, Social Network Sites Usage, Number of Photos Shared on Social Network Sites on Happiness among University Students: A Model Testing¹

Uğur Doğan*² Arca Adıgüzel²

* E-mail of the corresponding author: ugurdogan@mu.edu.tr

Abstract

This study aimed to explore the relationship between university students' happiness levels and their daily number of selfies, daily duration of social networking sites (SNS) usage and daily number of photos shared on SNS. The study was carried out with 360 university students attending Muğla Sıtkı Koçman University in Turkey. At the end of the statistical procedures, a model was achieved to include variables of happiness and daily number of selfies, daily duration of SNS usage and daily number of photos shared on social networks. It was understood from the model that daily number of selfies and daily duration of SNS usage predicted daily number of photos shared on social networks positively and significantly but did not predict happiness directly. In addition to this result, it is seen that daily number of selfies and daily duration of SNS usage has an indirect impact on happiness through daily number of photos shared on social networks. It can be said that the achieved Structural Equation Modelling (SEM) has good fit index values ($X^2=3.76$, $sd=2$, $X^2/df=1.88$, $P=.15$, $RMSEA=0.050$, $NFI=0.97$, $CFI=0.99$, $GFI=0.99$, $AGFI=0.97$, $SRMR=0.032$).

Keywords: Social network sites, selfies, photo sharing, happiness, structural equation modelling

1. Introduction

Social networking sites (SNS) and applications in which individuals spend most of their times play a key role in their developmental periods. Especially, adolescents and university students use SNS's intensively (Tektaş, 2014). Furthermore, purposes of SNS usage may include staying in touch with friends, learning about new and current events, spending time, using because of friends' use, communicating with others, using it for fun, sharing photos and videos, stating opinions, meeting new people, searching for and buy things (shopping) (McGrath, 2017). In a research study conducted in 34 countries, when it was asked to the participants at the age of 16-64 whether they had visited SNS for the last month, 97% of them answered yes (Mander, 2016a) and each user had 7 SNS accounts on average (Mander, 2016b).

As far as the SNS is concerned, mobile applications and the SNS applications among them comes to the forefront due to the use and accessibility of SNS since the smartphones entered our lives. According to the report by Simon Kemp of "We Are Social" website (2017), his research showed that more than half of world's population use smartphones, two-third of the world's population own mobile phones, more than half of the internet traffic stems from the mobile phones, and individuals at the age of 16-24 spend 50% of their time using mobile phones (Young, 2016c). As for the top 10 applications used by smartphone owners, the SNS applications predominate the list (Facebook Mobile App (44%), Google+ Mobile App (30%), Twitter (22%), Skype (22%), Facebook Messenger (22%), WhatsApp (17%), Instagram (11%), respectively) (Mari, 2013). The time spent by individuals in frequently used SNS is quite remarkable. According to the research by We Are Social (Kemp, 2017), number of SNS users around the world is 2 billion 307 million. The number has reached to 42 million in Turkey. Moreover, when compared the time spent on SNS between world and Turkey, the duration is 2 hours and 24 minutes around the world, whereas it is 2 hours and 32 minutes in Turkey which indicates that Turkey is above the world average.

As for the photo sharing, 300 million photos are shared on Facebook daily, 70 million photos on Instagram daily, 9000 photos on Snapchat in a second and 315 million photos on Facebook Messenger daily (Kemp, 2017). The contents of these photos may be the users themselves, the places they go or other people. According to a research study conducted between 2013 and 2015, Instagram usage coupled in the last two years (Buckle, 2015) and the number is increasing day by day (Young, 2016b) and half of the internet users are Instagram users (Young, 2016a). These numbers and statistics alone show the extent to which the photo sharing will achieve apparently.

In consideration of the numbers, it becomes necessary to investigate why individuals use SNS so

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² Psychological Counseling and Guidance, Education Faculty, Muğla Sıtkı Koçman University

intensively. According to Valkenburg, Peter, and Schouten (2006), the reason why the use of SNS has increased so much is that they are easy and inexpensive. Indeed, it can be observed in the functions of smartphones, too. Phones now function as a phone, a video camera, a camera and a computer at the same time. These functions help us meet our several needs easily. These needs primarily include making friends, peer feedbacks (Pempek, Yermolayeva, & Calvert, 2009); creating social capital, funding the social interaction (Ellison, Steinfield, & Lampe, 2007); staying in touch with friends and meeting them more frequently (Kalpidou, Costin, & Morris, 2011; Lenhart, Purcell, Smith, & Zickuhr, 2010; Obi, 2014; Öztürk & Akgün, 2012; Rae & Lonborg, 2015). In addition to the above-mentioned, individuals who have problems in the family environment and who orientate towards SNS because they care about themselves and can express themselves (Çalışkan & Özbay, 2015) and who want to find someone to marry use SNS (Vural & Bat, 2010).

There are studies in the literature which shows that SNS usage predicts individuals' happiness positively (Brandtzæg & Heim, 2009; Brooks, 2015; Doğan, 2016; Obi, 2014; Rae & Lonborg, 2015). Happiness used to be regarded as one of the cognitive (satisfaction with life) and emotional aspects of wellbeing by some researchers (Pavot & Diener, 1993). Being happy alone was not enough for wellbeing (Lyubomirsky & Lepper, 1999). An individual can be happy, but if he/she was not satisfied when considering his/her life in an extensive way, an exact integrity could not be achieved. In terms of definition, happiness is regarded as an extremely valuable personal experience related to permanent relationships, income level and health (Diener, Oishi, & Lucas, 2009; Lyubomirsky & Lepper, 1999). We can see that happiness is dynamic and influenced by cultural, social and individual activities. Three main domains of life are associated with happiness: social relationships, health and job (Lyubomirsky, King, & Diener, 2005). While an interaction is observed among these three domains, social relationships seem to be the most important determinant of happiness. Surprisingly, it was shown that life events like winning the lottery or becoming paralyzed along with happiness has surprisingly weak effects on daily experiences (Lyubomirsky & Lepper, 1999). Based on these definitions, prediction of individuals' happiness by SNS usage is not an unexpected thing as the most important convenience offered by SNS to individuals is facilitating the social relationships. Given that one of the three elements of happiness is social relationships, SNS usage meets the most important need of individuals.

Individuals create a profile for themselves and a visual-based internet personality on SNS by organizing what kind of a person they are, the world they live in, their wishes and relationships with others subjectively through information sharing. For Turkey, one of the most used methods has been selfie (Özdemir & Çetinkaya, 2015). Selfie has also been a concept for drawing the attention of researchers and other individuals in recent years (Katz & Crocker, 2015). As the use of photos has increased in the modernized world, it has become more necessary to examine the selfies taken by individuals. With some forms of selfies dating back to previous centuries, the advancing technology allows individuals to express themselves autonomously and changes their strength dynamics and expectations of traditional perception (Gieringer, 2015). Just like in the SNS usage, as a part of it, taking and sharing selfies have an impact on human psychology. In the research conducted by Alblooshi (2015) with 365 volunteers, it was found that self-esteem improved or declined as the number of selfies and sharing increased or decreased. There are other studies that selfie behavior is related to individuals having a liking for themselves (Halpern, Valenzuela, & Katz, 2016; Sorokowska et al., 2016).

The studies in the literature show that investigation of social media, photo sharing, and selfie with various psychological variables has gained importance today's age of technology. Accordingly, the purpose of this study is to examine the duration of social network usage and the number of selfies and shared photos.

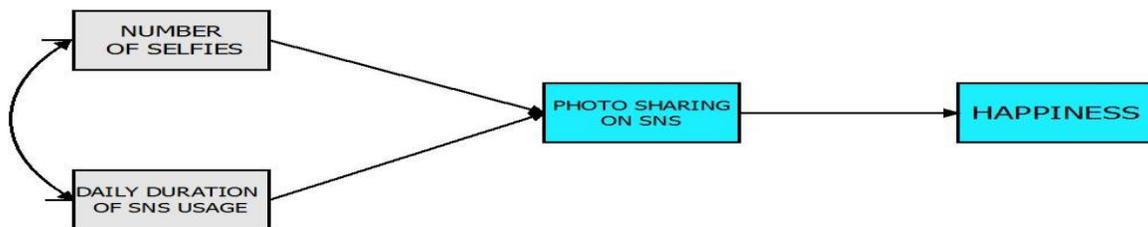


Figure 1. SEM (proposed model) regarding the daily number of selfies, daily duration of SNS usage, daily number of photos shared on social networks and happiness

2. Methodology

2.1 Study Group

The study was conducted with the volunteered participation of 360 university students attending different faculties of Muğla Sıtkı Koçman University in the academic year of 2015-2016 whose ages varied between 17 and 27 with an average age of 20.13, and 92 (26%) of whom are males and 268 (74%) of whom are female. Non-random and convenience sampling method was utilized when selecting the study group.

2.2 Data Collection Instrument

Information Form: The participants were asked the questions “How much time do you spend on SNS on average daily?”, “How many photos do you share in SNS daily on average?”, and “How many selfies do you take daily?” to find out about the SNS usage, the number of photos they share in SNS, and the daily average number of selfies they take, respectively.

Oxford Happiness Scale-Short Form: Oxford Happiness Scale-Short Form was utilized for measuring the happiness (Doğan & Çötök, 2011; Hills & Argyle, 2002). It is a 5-point Likert-type, self-evaluation scale (1=strongly disagree, 5=strongly agree). Higher scores mean more happiness. A structure explaining 46.74% of total variance was achieved at the end of the exploratory factor analysis performed for the adaptation study. The confirmatory factor analysis performed for the structure validity showed that the fit indexes were good ($\chi^2= 36.05$, $N= 532$, $sd= 13$, $p= 0.00$, $RMSEA=.074$, $NFI=.92$, $CFI=.95$, $RMR=.044$, $GFI=.97$, $AGFI=.93$, $IFI=.95$). Cronbach’s Alpha internal consistency coefficient was found to be .74 for the Turkish form. The Pearson’s correlation coefficient was found to be .85 in the test-retest analysis conducted with 81 students.

2.3 Data Analysis

Before the application stage of the research, the participants were informed of the research and the scales were applied to those who wanted to answer them voluntarily in classrooms. The participants were assured for confidentiality and the scales were applied without participants’ names. Prior to the analyses, the data were translated into z scores and the data left outside the range of -3.29 and +3.29 were excluded from the analysis to get rid of the extreme values (Field, 2005). Another thing before the analysis is that it is expected from the dataset to exhibit normal distribution (Tabachnick & Fidell, 2012). To see whether the data meet this assumption, the Kolmogorov-Smirnov and Shapiro-Wilk values were considered and it was seen that values of all the variables were not significant ($p>0.05$). These findings show that the data were normally distributed. Pearson’s correlation technique and Structural Equation Modelling (SEM), SPSS 22 (IBM, 2013) and Lisrel 8.80 software packages were used to determine the relationships among the mentioned variables and for the analyses, respectively (Jöreskog & Sörbom, 2006).

3. Findings

3.1 Correlation analysis

In the research, first the correlation among the daily number of selfies, daily duration of SNS usage, daily number of photos shared on SNS and happiness with a correlation analysis in an effort. Table 1 below provides the descriptive statistics and correlation analysis.

Table 1. Daily number of selfies, daily duration of SNS usage and daily number of photos shared on SNS and happiness

Variables	Mean	Sd	1	2	3	4
1- Number of Selfies	4.40	6.83	1			
2- Duration of SNS usage	3.57	2.99	.31**	1		
3- Number of photos shared in SNS	1.48	3.30	.29**	.11*	1	
4- Happiness	24.38	4.55	.04	-.05	.08	1

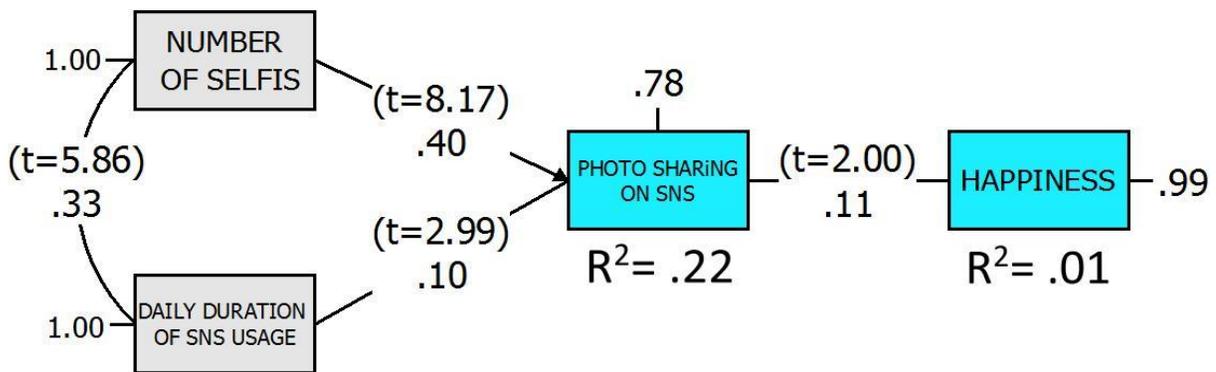
* $p < .01$, ** $p < .05$, $N= 363$

Correlations and descriptive statistics of the variables are presented in Table 1. As seen in the table, positive and significant correlations between selfie and duration of SNS usage ($r=.31$, $p<.01$) and selfie and number

of photos shared on SNS ($r=.29, p<.01$), a positive and significant correlation between duration of SNS usage and number of photos shared on SNS ($r=.11, p<.05$), a negative and insignificant significant correlation between happiness and duration of SNS usage ($r= -.02 p>.05$), and positive and insignificant correlations between happiness and number of photos shared on SNS ($r=.05, p>.05$) and happiness and selfie ($r=.04, p>.05$).

3.2 Structural Equation Modelling

SEM is a body of statistical techniques that tests the correlation sequences between a continuous or discontinuous and one or more independent variables and a continuous or discontinuous and one or more dependent variables (Ullman, 2012). SEM to identify the direct or indirect relationships among the daily number of selfies, daily duration of social network website usage, daily number of photos shared on social networks and happiness and Lisrel 8.80 software for analyses were utilized in the research (Jöreskog & Sörbom, 2006). The data on the model are given in Figure 2.



Chi-Square= 3.76, df=2, P=0.15279, RMSEA=0.050

Figure 2. SEM (final model) regarding the daily number of selfies, daily duration of SNS usage and daily number of photos shared on SNS and happiness

As seen in Figure 2, the daily number of selfies ($\beta=.40 p<.05$), daily duration of SNS usage ($\beta=.10 p<.05$) predicted the daily number of photos shared on SNS positively and significantly and the daily number of photos shared on SNS ($\beta=.11 p<.05$) predicted happiness positively and significantly. It is also understood that the daily duration of SNS usage did not predict positive happiness directly but through the daily number of photos shared on social networks. Fit indexes of the model achieved seems to be good ($X^2=3.76, sd=2, X^2/df=1.88, P=.15, RMSEA=0.050, NFI=0.97, CFI=0.99, GFI=0.99, AGFI=0.97, SRMR=0.032$). Estimated values regarding the analysis are given in Table 2. Table 2 shows the values regarding the indirect relationships among the variables.

Table 2. Indirect relationships between daily number of selfies, daily duration of SNS usage and daily number of photos shared on SNS and happiness

Variables	Number of selfies	Duration of SNS usage
Number of photos shared in SNS	---	---
Happiness	0.04*	0.02*

* $p<0.05$

As seen in Table 2, there was no direct relationship between the number of selfies and duration of SNS usage and happiness whereas there were indirect relationships through the number of photos shared on SNS. It was also found that there was a significant relationship at .04 between the number of selfies and happiness through the number of photos shared on SNS ($p<.05$). Similarly, it was seen that the duration of

SNS usage predicted happiness indirectly and significant at .02 through the number of photos shared on SNS ($p < .05$).

4. Discussion

Photo sharing, intense usage of SNS, extreme growth in mobile platforms and increasing amounts of selfie pods and photo editing tools have become new social phenomena. With the need for being admired, they have become a symbolic part of culture as tools of introducing oneself. Academic research in the domain is quite limited despite the interest in the popular media. Hence, this study concentrated on the prediction of happiness by the selfie behavior, duration of SNS usage and photo sharing.

According to the research findings, selfie directly predicted the number of photos shared. When examining the Instagram application with 700 million users (07.09.2017), there were 315,284,658 tags in the #selfie hashtag, 331,134,062 tags in the #me hashtag, and 643,092 tags in the #özçekim (selfie in Turkish) hashtag. The number would be enormous if other SNS were added to the abovementioned tags. It can be understood from the numbers in the Instagram application alone that youngsters take their selfies to share them on SNS. Another finding of the research is that the durations of SNS usage predicted photo sharing positively and significantly. In parallel with this research finding, (Katz & Crocker, 2015), 98% of the youngsters take selfies, 69% of them share these selfies for 3 to 20 times on SNS. The results can be interpreted in terms of the individuals' need for being admired and the narcissistic needs. Individuals exhibit selfie behaviors to share it on SNS and share these selfies. On the other hand, individuals' photo sharing increases as their duration of SNS usage extends and this correlation makes a specific contribution to their happiness.

Sorokowska et al. (2016), motivations underlying that individuals share their selfie behaviors on SNS include attracting attention, archiving, making friends, and narcissism. SNS ensure that individuals' perception of self is approved and this sense is approved by others (Bazarova & Choi, 2014). There are various tools in SNS to share one's own information: creating a personal profile, status update, wall sharing, etc. Yet, selfie behavior seems to be the most important tool among the before-mentioned. Individuals exhibit their desired self-image with selfies to be approved by others and emphasize their own main characteristics (Sung, Lee, Kim, & Choi, 2016). Another point made by Sorokowska et al. (2016) is that as far as the need for attracting attention is concerned, happiness is nothing but meeting the desires according to a researcher or theoretician who regards happiness as satisfaction (Gauthier, 1967; Jeske, 1996). As argued by Matsushita, if we become hungry, we desire to eat; we become happy if succeeding in eating (Vitranò, 2006). If we desire to be admired, we want to draw attention, therefore taking selfies to draw it and sharing them on SNS. We are happy if we are successful in this combination. The first question comes to mind is why individuals become happy if it is not known whether the shared selfies will be liked. Austin (1968), liking what someone owns instead of buying what one wants may not be a sufficient condition of happiness but it is necessary. Individuals would share their favorite photos on SNS. Leaving this perspective, sharing a photo they like due to their own selfie behavior would make them happy even if the photo was not liked.

Selfie sharing is closely related to self-introduction formed by individual's selected photos (Mehdizadeh, 2010). Selfies can be regarded as helping individuals create their own auto-portraits to assist to reflect their positive and attractive self-images on SNS; by this nature, there may be studies showing that selfie sharing is related to narcissistic attributes (Fox & Rooney, 2015; Sorokowska et al., 2016). Indeed, Rosen, Whaling, Rab, Carrier, and Cheever (2013) argue that SNS usage increases narcissism. Because, individuals reinforce the shared photos and their narcissism with personal information for which one needs to be very careful and selective when sharing them. Kim, Lee, Sung, and Choi (2016), we see that narcissistic tendencies predict sharing photos or other things. Halpern et al. (2016), however, argued that selfie behavior and sharing the selfies have an alternate impact because selfies influence narcissism and the narcissism cause more photos to be taken and shared. The research findings coincide with this alternate result. Findings show that selfies predicted photo sharing; in return, photo sharing predicted happiness. Much as this prediction is low, it makes a significant and specific contribution. In another study in parallel with the findings of this research, McCain et al. (2016) argued that individuals experience positive emotions when exhibiting the selfie behavior. Then, why do SNS usage, selfie and photo sharing make individuals happy? Besides the above-mentioned attributes, even the performance of these behaviors may make individuals happy. Brandt (1989) suggested that individuals can become happy without cheer and joy as the period of time during which individuals feel happy are formed with nice moments and fun. The selfie

behavior, SNS usage and photo sharing can be considered as the nicest moments and fun mentioned by Brandt (1989). Moreover, the messages conveyed by individuals such as “I am here”, “I am here, too, on SNS”, and “Look, I am happy” alone can cause them to be happy even if a shared photo or selfie is to be liked. It can be implied that this contributes to individuals’ socialization. Tandoc, Ferrucci, and Duffy (2015), SNS usage even reduces depression as it helps individuals socialize and interact. Despite multitude of things that can make individuals happy in life, SNS usage, taking photos and the selfie behavior itself can make a specific contribution to happiness no matter how small it is. Because, Carson (1978), all enjoyable activities, whether being good or not, contribute to happiness. Campbell (1973), even benefiting from almost all activities makes individuals happy, enjoying one of those activities is the ultimate condition of happiness. SNS usage, photo sharing and selfie behavior within today’s technological world can be regarded as the most important activities enjoyed by individuals, especially students.

5. Implication

It is clearly seen in the research that the selfie behavior, durations of SNS usage and photo sharing are variables to be addressed separately. Selfie and durations of SNS do not predict happiness directly but indirectly. Another implication is that the variance explained by the selfie behavior, durations of SNS usage and photo sharing in happiness is at the level of 1%. Despite meeting needs such as being admired and drawing attention, it is not considered one of the main elements for happiness. It shows that there are more important variables which are the determinants of happiness.

6. Recommendations

Model to be achieved in future studies which compare genders would contribute to the field significantly. Furthermore, it is thought that modelling studies or intermediary variable analyses which addresses personality traits and especially narcissism would be very useful. Comparison of the personality traits in future studies between clinical and non-clinical groups should have even a greater impact. Adding variables such as problematic smartphone usage and FOMO to the current ones should make the limited number of studies on selfie more popular and potent. It is also observed that studies on selfie focus on daily number of selfies taken. Developing a measurement instrument to put forth selfie behaviors should increase the attention to selfie behaviors among researchers.

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Uğur Doğan, He works at the Department of Guidance and Psychological Counseling, Faculty of Education at Mugla Sitki Kocman University in Turkey as Assistant Professor. His research interests focus on effects of Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT) on a variety of problems faced by college students, high school and college students' social network sites (SNS) usage, problematic internet usage with respect to personality traits.

Arca Adıgüzel, He works at the Department of Guidance and Psychological Counseling, Faculty of Education at Mugla Sitki Kocman University in Turkey as Research Assistant. His research interests focus on effects of Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT) on a variety of problems faced by college students, high school and college students' social network sites (SNS) usage, problematic internet usage with respect to personality traits.