

# The Big Five Personality Traits and Shopping Addiction among Young Turkish Adults

## Türk Genç Yetişkinlerde Büyük Beşli Kişilik Özellikleri ve Alışveriş Bağımlılığı

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10.32739/usmut.2023.9.15.97

### Abstract

With the onset of the COVID-19 pandemic and related restrictions, online shopping has become a part of the daily life of individuals across the globe. Shopping addiction or compulsive buying, on the other hand, is considered to be a growing behavioral addiction problem which renders individuals' wellbeing and happiness. The current study aimed at examining the role of gender and the Big Five personality traits on shopping addiction among university students. Study data were obtained through an online survey platform. Seventy university students aged between 18 and 33 ( $M=23.10$ ,  $SD=3.38$ ) were included in the analyses. Group comparisons were carried out by conducting One-way Analysis of Variance. A hierarchical multiple regression analysis was used to test the hypothesized model where the shopping addiction score was the dependent variable. The predictor variables were extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience scores of the participants. One-way Analysis of Variance tests results indicated a gender difference, with females scoring higher on the shopping addiction score. Hierarchical multiple regression analysis showed that only the openness to experience trait significantly and inversely predicted the shopping addiction. Empirical studies that address the relationship between potentially addictive shopping and the Big Five personality traits are producing inconclusive results. This study was specifically designed to examine the personality - shopping addiction relationship and supports the existing body of knowledge by providing findings from a non-Western culture. A possible protective role of openness to experience trait with regards to shopping addiction is the main implication of the study.

### Keywords:

Big Five Personality, Shopping Addiction, University Students

### Öz

COVID-19 salgını ve ilgili kısıtlamaların başlamasıyla birlikte, çevrimiçi alışverişin bireylerin günlük yaşamının bir parçası haline geldiği görülmektedir. Alışveriş bağımlılığı veya kompulsif satın alma ise bireylerin iyi oluş ve mutluluk düzeylerini olumsuz yönde etkileyen, giderek artan ve gençler arasında yaygın bir davranışsal bağımlılık sorunu olarak kabul edilmektedir. Bu çalışma, üniversite öğrencilerinde cinsiyetin ve Beş faktör kişilik özelliklerinin alışveriş bağımlılığı üzerindeki rolünü incelemeyi amaçlamıştır. Çalışma verileri çevrimiçi bir anket platformu aracılığıyla elde edilmiştir. Yaşları 18 ile 33 arasında değişen ( $M=23.10$ ,  $SS=3.38$ ) yetmiş üniversite öğrencisi analizlere dahil edilmiştir. Grup karşılaştırmaları Tek Yönlü Varyans Analizi kullanılarak yapılmıştır. Alışveriş bağımlılığı puanının bağımlı değişken olduğu regresyon modelini test etmek için hiyerarşik çoklu regresyon analizi kullanılmıştır. Yordayıcı değişkenler, katılımcıların dışadönüklük, uyumluluk, vicdanlılık, nevrotilik ve deneyime açıklık puanlarıdır. Tek Yönlü Varyans Analizi testlerinin sonuçları, alışveriş bağımlılığı puanında kadınların daha yüksek puan almasıyla cinsiyet farklılığına işaret etmiştir. Hiyerarşik çoklu regresyon analizi, yalnızca deneyime açıklık kişilik özelliğinin alışveriş bağımlılığını anlamlı ve ters yönde yordadığını göstermiştir. Bu çalışma, kişilik - alışveriş bağımlılığı ilişkisini incelemek için özel olarak tasarlanmıştır ve Batılı olmayan bir kültürden bulgular sağlayarak mevcut bilgileri desteklemektedir. Deneyime açıklık özelliğinin alışveriş bağımlılığı açısından olası bir koruyucu rolü çalışmanın temel çıkarımıdır.

### Anahtar Kelimeler:

Beş Faktör Kişilik, Alışveriş Bağımlılığı, Üniversite Öğrencileri

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## INTRODUCTION

### Study background

“The pandemic’s toll on negative emotions is clear” (Helliwell, 2021). Based on data from 95 countries analyses presented in the World Happiness Report showed a significant increase in negative mood such as sadness and worry while positive affect remained unchanged. In the report, which base on Gallup World Report, laughter and enjoyment are determined as two operational components of happiness. The good news is happiness which was assessed on an individual level yet reported for the global sample of countries, did not show any significant change across 2017-2019 to 2020. Country level analyses on the other hand, revealed a considerable variation: the positive affect score of Turkey in 2020 dropped, while negative affect score raised significantly as compared to 2017-2019 mean happiness score. Since happiness is considered to be an important aspect of well-being, it has been a highly investigated topic. Although an everyday conception is an emotion, happiness, theoretically encompasses behavior, enabling mechanisms and personality characteristics (Averill & More, 1993). Some researchers used and operationalized happiness as a synonym of positive affect as such the prevalence of positive emotions and moods (Diener, Kesebir & Tov, 2009) and conceptualised one of the dimensions of well-being (Ryan & Deci, 2000).

Although there is no consensus on the single definition of well-being, numerous theoretical and empirical studies revealed its basic features; it is multidimensional (Ryff, 1989) and can be evaluated in the situational and subjective domains (Pontin et al., 2013). One of the most comprehensive study on the components of well-being was performed by Linton and colleagues in 2016. By examining 99 different well-being measures used in the literature, researchers revealed six thematically different well-being aspects. These are named as global, mental, social, physical, spiritual well-being and, activity and functionality. In this direction, being well means all the different aspects of one’s life and is accepted as a broad umbrella term describing forms of evaluation (Diener et al., 2017). Most of the studies on multidimensional well-being are carried out under the umbrella of positive psychology (Seligman, 2011). In this theoretical framework, the experimental, longitudinal and cross-sectional studies show that well-being is associated with many positive outcomes. In these studies, well-being has found to be positively associated with positive mood, optimism, life satisfaction, effective learning, productivity, longevity and better physical health; and inversely related with negative psychological variables such as neuroticism, pessimism, anxiety and depression, (Lyubomirsky et al., 2005; Chida & Steptoe, 2008; Dolan, Peasgood & White, 2008; Diener et al., 2010; De Neve et al., 2013; Hone et al., 2014). Among the strongest predictors of various aspects of well-being, personality traits deserve a special recognition. It is argued that, personality traits have an important role in creating conditions that promote or hinder well-being (McCrae & Costa, 1991). A recent study revealed a direct reciprocal relationship between openness and extraversion traits and psychological well-being, suggesting the joint development of both traits and well-being (Joshnloo, 2023). Additionally, research also indicates the traits’ potential to predict future well-being (Abbott et al., 2008).

Due to the importance of positive mood i.e., happiness in the well-being of individuals, especially during “difficult” times such as pandemics and pandemic caused shut-downs, online shopping has gained a unique position in the lives of individuals. Given that shop-

ping encompasses both strong hedonic motivation (Koch, Frommeyer & Schewe, 2020) as well as utilitarian motives, it becomes a unique and significant risk factor addiction. Its relationship with personality traits and other psychological well-being variables resulted in number of recent studies which tried to uncover the correlates and predictors (Tarka, Kukar-Kinney & Harnish, 2022; Uzarska, Czerwiński & Atroszko, 2021).

Throughout history, there have been various motivations for people to purchase things. In addition to buying what is needed, it is also made for what is not needed. Keeping up with the fashion of the time, being popular, and imitating others are a few motives for buying. When the buying behavior or shopping is beyond being controlled, the situation is considered problematic and the condition was given different names. A series of different terminology has been developed for the concept. Purchase mania or oniomania (Kreaplin, 1909, as cited in Müller et al., 2010); impulsive buying (Rook & Fisher, 1995), buying addiction or addictive buying (Scherhorn, Reisch & Raab, 1990) and compulsive buying (McElroy et al., 1994) are the terms used in the extant literature. Although it does not have a special diagnostic criterion in the DSM (Diagnostic and Statistical Manual for mental disorders; American Psychiatric Association) nor ICD (International Code of Diseases, World Health Organization), it meets the conceptual criteria for addiction (Uzarska, Czerwiński & Atroszko, 2021). In this sense, "... addictions are a part of a biopsychosocial process and not just restricted to drug ingested behaviours" (Griffiths, 2005). Accordingly, behaviors such as internet use, gambling, online gaming and shopping can be considered as addictive behaviors when these behaviors result in the actual problems due to the activity in question (Griffiths & Michael Larkin, 2004).

Compulsive buying or shopping addiction is considered to be a global phenomenon, affecting consumers from both developed (e.g., Germany and Netherlands) and developing (e.g., Turkey and Russia) economies (Horváth & Adıgüzel, 2018). It has been observed that shopping addiction, like other addictions, is associated with adverse individual and interpersonal consequences (Müller et al., 2010). Results of the studies which examine the correlates of shopping addiction show that individuals who seek treatment for their problematic shopping behavior, also suffer from other psychiatric conditions such as eating disorders, anxiety, and depression (Müller, Mitchell & de Zwaan, 2015). Müller et al., 2021 further argued that, this behavioral addiction can be a behavioral outlet of disorders such as narcissistic personality disorder by means of 'narcissism by materialism' effect.

Researchers to date, have tried to understand behavioral and psychological correlates (Faber & O'Guinn, 1992) and risk and protective factors regarding shopping addiction. They indicate that there are still few studies showing the effect of personality characteristics on different behavioral addictions within an integrated model. Uzarska, Czerwiński & Atroszko (2021) reported a clear need for more information about shopping addiction and personality characteristics relationship. The Big Five personality domains play a role in understanding this addiction better (eg., Tarka, Kukar-Kinney & Harnish, 2022). In this sense, the Big Five taxonomy serves as an integrative function because it represents a diverse system of personality description (John, Naumann & Soto, 2008). Openness to experience, agreeableness, conscientiousness, and extraversion are the dimensions of personality which are higher-order organizing factors of personality (Costa & McCrea, 1992). When the studies where the big five personality traits' effect on shopping addiction

were examined, it was seen that, while conscientiousness is a protective factor in developing this addiction, neuroticism and emotional instability are considered among risk factors (Claes & Müller, 2017; Otero-López, Santiago & Castro, 2021; Uzarska, Czerwiński & Atroszko, 2021). San-Martín, Jimenez, Camarero, and San-José, (2020) on the other hand found that neuroticism, extraversion, and agreeableness determine purchasing behavior indirectly through self-efficacy which as authors argue, transfers to online shopping self-efficacy. In a similar vein, Müeller and colleagues (2010) demonstrated two different personality clusters among compulsive buyers who seek treatment for this problem: in the first prototype positive correlation between compulsive buying scores and all five personality domains were observed. In the second prototype, compulsive buying correlated positively with neuroticism and negatively with extraversion, openness, agreeableness, and conscientiousness. Researchers also reported that these two clusters did not differ by gender age, antidepressant medication treatment, or duration of compulsive buying condition (Müeller et al., 2010). Harnish, Roche & Bridges (2021) studied personality correlates of compulsive buying among undergraduate students and revealed that feelings of isolation (termed as detachment and considered as a personality variable in the study) play a role in buying addiction in two different paths. Authors argue that when the academic load of the students is low, spending is not a useful distractor from the stress. On the other path, students who have low scores on isolation but report more academic load, engaged in more spending behavior. The results suggest that the role of personality characteristics and perceived levels of isolation needs to be further explained. A recent study which examined the Big Five personality domains and shopping addiction in detail revealed that, as well as neuroticism, extraversion and openness to experience traits significantly predicted compulsive buying indirectly, through hedonistic aspect of the shopping experience (Tarka, Kukar-Kinney & Harnish, 2022).

These recent studies and the current research was conducted at the time of the COVID-19 pandemic restrictions when an increase in internet use and online shopping was documented worldwide (Aston et al., 2020). During the COVID-19 pandemic, due to the restrictions and stay-at-home orders, many individuals were inclined to shop online. Some researchers reported an increase in the potentially addictive shopping behavior during this period (e.g. Dubey et al., 2020; Niedermoser et al., 2021). While young people seem to be more at risk of developing critical shopping behavior, findings show no clear gender differences in frequency but differences in terms of buying motivation (Niedermoser et al., 2021). Koch, Frommeyer & Schewe (2020), on the hand argued that, age can be a significant factor in terms of motivation for shopping and reported a higher level of hedonic motivation for shopping in younger women showed. In one such study where the researchers conducted a survey between September 2020 and February 2021, it was reported that the shopping addiction scores were significantly predicted by the gender and employment status of the participants. It was also found that the female and non-student participants' shopping addiction scores were significantly higher than those of the male and student participants (Brunelle & Grossman, 2022). The most comprehensive study conducted with 24380 participants in Turkey, where the current study was also conducted, revealed three important findings: First, shopping addiction is not a rare condition in Turkey; Second, being female and being young are positive correlates of problem shopping; Third, "Further research is needed to understand different motives that underlie the problematic shopping behavior

in the young and female population” as compared to older and male (Ünüböl et al., 2022).

In line with the current literature, the present research specifically aims to examine the role of Big Five personality traits on shopping addiction among Turkish university students during COVID-19 restrictions. By specifically examining the Big Five personality traits and shopping addiction among young Turkish adults, it is also aimed to contribute to personality traits and shopping addiction relationship literature which needs further research.

## METHOD

**Ethics approval:** All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all participants to be included in the study. The work received approval from the rectorate of Atılım University which has assumed the authority of Ethics Committee at 4 April 2020.

### Participants and procedure

The study sample was drawn from a larger sample where the participants were adults. In the current study, the inclusion criterion was being an adult (over age 18) university student at the time of the data collection. Data was collected via an online survey platform during the first round of COVID-19 pandemic shutdowns in Turkey (April 2020) (Surveyey). All participants anonymously and voluntarily took part in the study and informed consent was obtained. The procedure complained to the Institutional Review Board’s ethical standards. 70 university students’ data was used to examine the study variables. Participants aged between 18 and 33 ( $M = 23.10$ ,  $SD = 3.38$ ); 53 of them indicated their gender as female and, 17 of them as male.

### Instruments

An online questionnaire included demographic information of the participants such as age, gender and education status. Since gender - is known by previous research and, expected to be in the current research - a significant factor, another independent variable was included in order to test the homogeneity of the variance in the shopping addiction score. One yes-no question about smoking habit ‘Do you smoke cigarettes?’ was used as a grouping variable in the analyses. Shopping addiction was assessed with Bergen Shopping Addiction Scale. Ten Item Personality Inventory was used to assess the Big Five Personality traits scores of the participants.

### Bergen Shopping Addiction Scale (BSAS)

The Bergen Shopping Addiction Scale (BSAS) (Andreassen et al., 2015) is composed of 7 items, representing seven addiction criteria (salience, mood modification, conflict, tolerance, withdrawal, relapse, and problems) (Griffiths, 2005). BSAS is a widely used, reliable, and valid instrument for assessing shopping addiction (Griffiths et al., 2016). The scale was validated in a Turkish sample to be used for online compulsive buying (Bozdağ and Alkar, 2018). The items were scored on a 10-point scale ranging from disagree strongly (1) to agree strongly (10). High scores indicate a greater level of shopping addiction. The internal



consistency of the scale was calculated as Cronbach alpha = .91 in the current study.

### Ten Item Personality Inventory (TIPI)

Ten Item Personality Inventory (TIPI) comprises 10 items, which are represented by the Big Five personality dimensions: extraversion, agreeableness, conscientiousness, neuroticism (emotional stability), and openness to experience scales (Gosling, Rentfrow, & Swann, 2003). It has been widely used, a reliable and valid instrument proximating the longer versions of the Big Five personality measures. TIPI was validated in a Turkish sample by Atak (2013). The items are rated on a 10-point scale, ranging from disagree strongly (1) to agree strongly (10). The Big Five personality dimension scores were obtained by averaging two items' scores under each dimension.

### Data analysis strategy

The minimum number of participants required for the regression analysis was determined based on Khamis & Kepler (2010) suggestion  $n > 20 + 5m$ . Based on this, the minimum number with 5 predictor variables is 45. With the a-priori effect size of .15 and .8 as the power, the sample size was calculated as 67 (Soper, 2022). Since the BSAS score is slightly skewed a higher cases-to-IV ratio was needed (Tabachnick & Fidell, 2019), and all 70 cases were decided to be included in the subsequent regression analysis.

SPSS program was used for statistical analyses (IBM, ver.26). 95% confidence interval was adapted for the statistical significance and Bonferroni adjustment was set for pairwise comparisons. Before univariate and multivariate analyses, variables were examined in order to test their suitability for the statistical assumptions. BSAS score was the only dependent variable. Levene's tests for equality of variances (.015,  $p = .903$ ) showed the homogeneity of variances across groups based on smoking habit (smoking vs. not smoking cigarettes) on this score. Bivariate correlations among the study variables showed no multicollinearity. Shopping addiction and the Big Five personality dimension scores of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience scales' scores met the criteria for equality of variances (Levene's test). The scores representing the variables to be entered into the regression analyses were found to be normally distributed. Variance inflation factor (VIF) values of the predictor variables in the regression analysis varied between 1.00 and 1.496. Table-1 displays the descriptive statistics and Pearson  $r$  correlations among the variables.

**Table-1.** Descriptive statistics of and Pearson  $r$  correlation coefficients between the study variables

Variables	M	SD	Skewness	Kurtosis	1	2	3	4	5	6
BSAS	2,86	1,73	1,481	2,004	-	.14	-.19	-.01	-.16	-.16
Extraversion	6,99	2,05	-.526	-.500		-	-.08	.21	.34**	.47**
Agreeableness	7,26	1,48	-.182	-.432			-	.13	.25*	.16
Conscientiousness	7,11	1,57	-.180	-.644				-	.36**	.32**
Neuroticism	5,47	2,05	-.019	.054					-	.21
Openness to experience	7,84	1,63	-.621	.006						-

Note. BSAS = Bergen Shopping Addiction Scale, \* $p < .05$ , \*\* $p < .01$

## RESULTS AND DISCUSSION

In order to test the possible difference of BSAS scores across gender and nicotine addiction, two separate One-way Analysis of Variance tests were conducted. The results revealed that higher than that of male ( $M = 2.03$ ,  $SE = .24$ ) participants. Smokers who were 42,9% of the participants ( $M = 2.86$ ,  $SE = .31$ ), and non-smokers ( $M = 2.87$ ,  $SE = .28$ ) on the other hand, were not significantly different in terms of their BSAS scores  $F(1, 68) = .001$ ,  $p = .975$ .

The predicted variable was the BSAS score in regression analysis. The Big Five personality domains namely, extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience were introduced in 5 steps consecutively. The proposed model was significant. The Big Five traits explained a total of 38% of the shopping addiction scores. As it can be seen in Table 2, openness to experience ( $\beta = -.28$ ) was the only significant predictor of shopping addiction in an inverse direction.

*Table-2. Hierarchical Regression Analysis Results*

Variable	B	SE B	$\beta$	R <sup>2</sup>	$\Delta R^2$
Step 1 Constant	2,051	.737		.138	.019
Extraversion	.116	.101	.138		
Step 2 Constant	3,636	1,296		.224	.031
Extraversion	.104	.101	.124		
Agreeableness	-.206	.139	-.177		
Step 3 Constant	3,698	1,460		.224	.000
Extraversion	.106	.104	.126		
Agreeableness	-.204	.142	-.175		
Conscientiousness	-.013	.136	-.012		
Step 4 Constant	3,417	1,456		.290	.034
Extraversion	.161	.109	.191		
Agreeableness	-.145	.146	-.124		
Conscientiousness	.051	.141	.046		
Neuroticism	-.181	.116	-.215		
Step 5 Constant	4,150	1,467		.375	.056*
Extraversion	.272	.119	.323		
Agreeableness	-.083	.145	-.071		
Conscientiousness	.120	.142	.109		
Neuroticism	-.199	.114	-.236		
Openness to experience	-.300	.147	-.284		

Note. BSAS = Bergen Shopping Addiction Scale, \* $p < .05$

The results of the analyses of this preliminary study indicated that, as ANOVA statistics confirmed, there is a gender difference in shopping addiction scores. First, the current research confirmed some of the earlier findings of the studies (e.g., Brunelle & Grossman, 2022; Koch, Frommeyer & Schewe, 2020), i.e. female participants' scores were higher on the shopping addiction as compared to male participants. Second, among the Big Five

personality dimensions, the openness to experience was the only significant and negative predictor of shopping addiction score.

Actually, previous research provides inconclusive evidence regarding the openness to experience trait's influence on shopping addiction. Some of these indicate a negative relationship between shopping addiction and openness to experience trait. Specifically, Andreasen et al. (2015) findings showed a negative association between openness to experience and BSAS scores. Similarly, in Uzarska, Czerwiński & Atroszko's research (2021) with Polish students, BSAS scores correlated negatively with agreeableness, conscientiousness, and openness to experience. Otero Lopez's study with Spanish students showed that compulsive buyers score higher than non-compulsive buyers in extraversion and lower in openness, but differences between both groups were not statistically significant. Mikołajczak-Degrauwe and colleagues (2012) compared the Big Five trait scores of compulsive and non-compulsive buyers in Belgium and found that non-compulsive buyers scored significantly higher on the openness to experience trait. Given that new research name these two traits: extraversion and openness to experience a meta trait called plasticity (DeYoung, 2015), the results of the current study are also consistent with the plastic exploration driven by new interpretations of the current states along with desire for positivity (Joshnloo, 2023). Accordingly, individuals who score high on the openness to exploration trait, may tend to actively engage in their environment by producing and attending novel aspects of their pandemic influenced life and do not tend to shop for hedonic purposes.

The second line of research on the other hand either reported a non-significant relationship (e.g., Mowen & Spears, 1999; Mowen, 2000; Wang & Yang, 2008) or positive contribution of openness to experience excessive buying. More recently, Tarka, Kukar-Kinney & Harnish's (2022) research with US consumers, showed a statistically significant and positive contribution of openness to experience trait on both hedonistic shopping experience and compulsive buying.

The result of the current research is consistent with the first line of the research mentioned above. The inconsistency in shopping addiction and the Big Five personality traits relationship was brought to researchers' attention by several studies already (e.g., Mikołajczak-Degrauwe et al., 2012; Otero-López, Santiago and Castro, 2021; Uzarska, Czerwiński & Atroszko, 2021) and need for further studies were mentioned.

One additional point of discussion at this point could be the potential role of culture on personality. A well-known study where the Big Five personality traits were examined across 56 nations, including Turkey where the current study was conducted, openness to experience trait scores were found to be not significantly different between participants from North America, Eastern, Western, Southern Europe and Middle East (Schmitt, Allik, McCrae, & Benet-Martínez, 2007). Turkish participants in Schmitt and colleagues' study (2007) were placed in the Middle East group. Based on this research one can argue that the openness to experience trait scores of Turkish participants are similar to both European and North American participants' scores that are reported in the literature. Based on these, we can argue that the finding of the current study - openness to experience is the only statistically significant correlate of BSAS among the Big Five traits - is not expected to be due to cultural variations or cultural factors.



The final point of discussion of the findings of the current research is the personality trait behavior relationship. Although personality, largely due to its stability, is considered to be the predictor of various behaviors such as safety (Lucidi et al., 2019), in the context of the current research, it does not seem to be possible to predict the actual shopping behaviors of the participants. Therefore, the current research supports only the potential protective role of the openness to experience trait on shopping addiction, not the actual compulsive buying behavior. One research implication for the future therefore, is to examine the shopping addiction scores, actual buying behaviors and the Big Five personality traits of individuals. The main practical implication of the current research can be encouraging young adults to have a variety of intellectually stimulating activities and elaborative thinking which are the main characteristics of individuals who score high on the openness to experience trait also named intellect (Costa & McCrae, 1992). A main strength of the study is its focus on a targeted sample of young adults from a non-western culture and its clear design which solely examines the Big Five personality traits the shopping addiction.

### Limitations and future directions

Despite the procedures that were administered to overcome common measurement issues during data collection, and carefully tested statistical analyses this study has some limitations that need to be mentioned. First, the design of the study is cross-sectional and therefore, despite statistical procedures used in order to test the predictors, the causal relationship between variables cannot be assumed. The small sample size is the second limitation of the study that the results can not be generalized. Future studies are needed in this regard in which longitudinal or quasi-experimental designs with larger samples are involved.

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