

A STUDY ON PERSONALITY TRAITS AND SHOPPING ONLINE

BADANIE DOTYCZĄCE CECH OSOBOWOŚCI I ZAKUPÓW ONLINE

<https://doi.org/10.34739/zn.2019.48.05>

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Abstract: The aim of the article is to analyze inter- relations between online shopping behaviour and personality traits. Online shopping has been developing all over the world. People not only buy locally but also trade internationally via the internet. The method of the study is correlation with the use of SPSS programme. Two different inventories were administrated to 243 university students via online. Big-Five Personality Questionnaire and Compulsive Online Shopping Behaviour were used. This test apparatus indicates five different personality dimensions such as extraversion, agreeableness, conscientiousness, emotional stability, intellect imagination. The compulsive online shopping behaviour was applied to get data on online shopping. The findings indicate that there are correlations between personality traits and excessive online shopping behaviour. People who are less agreeable and self conscious should think more before shopping online.

Keywords: online shopping, personality, big five personality traits, tendency of buying, university students

Streszczenie: Celem tego opracowania jest analiza wzajemnych relacji między zakupami w Internecie a cechami osobowości. Zakupy online rozwijają się na całym świecie. Ludzie nie tylko kupują lokalnie, ale także handlują na arenie międzynarodowej za pośrednictwem Internetu. Przedmiotem badania jest zakres korelacji z wykorzystaniem programu SPSS. W badaniu, w którym wzięło udział 243 studentów, zastosowano kwestionariusz osobowości (tzw. BFP). Ten aparat testowy analizuje pięć różnych wymiarów osobowości, takich jak ekstrawersja, ugodowość, sumienność, stabilność emocjonalna, wyobraźnia intelektualna. W opracowaniu analizowano kompulsywne zachowanie podczas zakupów online. Wyniki wskazują, że istnieją korelacje między cechami osobowości a zachowaniami zakupowymi w Internecie. Ludzie, którzy są mniej zgodni i samoświadomi, powinni bardziej wnikliwie zastanowić się przed realizacją zakupów online.

Słowa kluczowe: zakupy online, cechy osobowości, nienormalność handlu cybernetycznego, młodzież uniwersytecka

Introduction

It is obviously clear that between the ages of 18 to 60, there isn't anyone who hasn't bought something via online. Especially children and those under the age of 18 have been forcing their parents to buy something from the internet. In an ordinary search in Google, there are 182.000.000 findings which present relations between online shopping and personality. In addition, in Google Academic, 293.000 similar scientific studies can be seen. Moreover, the same topics also indicate 59.303 different manuscripts in Ebscohost scientific search engine. These indications underline the importance of internet buying, in other words, online shopping and personality or character.

For private consumers around the globe, the most well-known form of e-commerce falls into the business to consumer category, which includes online retail or online shopping. It refers to online

purchases from bricks-and-mortar retailers, such as Walmart, as well as from web-only online retailing corporations such as Amazon.com or Rakuten. In 2018, an estimated 1.8 billion people worldwide purchased goods online. During the same year, global e-retail sales amounted to 2.8 trillion U.S. dollars and projections show a growth of up to 4.8 trillion U.S. dollars by 2021. In recent years, mobile shopping has been on the rise, with customers increasingly using their mobile devices for various online shopping activities. As of the fourth quarter of 2018, desktop PCs accounted for approximately the same amount of global e-retail orders as smartphones. (Duncan, 2019).

The average online shopping and purchase intention rates among online shoppers also vary strongly by product category - clothing, shoes and consumer electronics were the most popular online shopping categories worldwide. The average

shopper spending per visit was - unsurprisingly - highest in the luxury apparel vertical.

Amazon.com is one of the most popular and well-known examples of an online shopping platform. Founded in 1995, the Seattle-based site started out as an online bookstore, but soon began expanding its product range towards other retail goods and consumer electronics. The online company consistently ranks among the top ten leading retailers worldwide - online and offline. Online retailers are the most popular starting point for first-time purchasers but online marketplaces are also more attractive for repeat buyers (Duncan, 2019).

Pereira, Salgueiro and Matues (2014) in their study "Say yes to Facebook and get your customers involved! Relationships in a world of social networks" find out that, Facebook users are willing to connect to brands on Facebook, they do not seem to interact or to frequently share brand content themselves. As a consequence, brands must strategize to establish a relationship with their brand profile fans. In another study Acar and Plonsky (2007) show that gender and extroversion predict online social network size and time spent online; that opinion seekers spend more time online and have larger networks relative to opinion leaders; and that opinion leaders are more likely to communicate their brand use online. We also find the mediating role of opinion leadership and opinion seeking in explaining the impact of general personality traits on online brand communication and social networking.

Like in all over the world in Turkey; Hepsiburada, Trendyol, Markafoni, N11 are most popular firms that work online. It can be said that a large proportion of the cargo companies are related to the internet trade. Getting to the internet is easier than visiting to the market. Especially in big cities, if shopping centres offer many opportunities to consumers, prices are not at the desired rate. Internet shopping provides an effective comparison between different companies selling the same product. At the end of the shopping, on birthdays, the gift vouchers issued on the Black Friday days at the end of the year are attractive to customers. Coincidentally a product you are researching on the internet, other times when you are surfing the Internet an ad comes up. In this way, companies sell products from the internet while you are reading the news, looking at your e-mails, facebook, instagram, social media, just wandering around.

Personality Traits

Personality may be defined as the underlying cause within the person of individual behaviour and experience. The ancients commanded us to "know

thyself," but in psychology this quote takes on many aspects. Eysenck (1947)' work on the extraverted and neurotic dimensions of personality paved the way for many other models, with contemporary psychologists commonly assessing people according to the "Big Five" personality traits of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Today, we can take myriad tests to determine our "personality type," and while it is wise to be skeptical of their validity, some can provide genuine insights. The best known of the modern forms is the inventory originally created by Isabel Briggs Myers Butler-Bowdon (2007, p. 8). If you know a person's personality type their behaviour begins to make sense.

The Five Factor Theory: McCare and Costa

The method of factor analysis, which was the bases for Cattell (1965) research, has been the tool of many other personality researchers. As its name indicates, the Big Five model of personality asserts that there are five basic factors of personality. The five factors originally were developed from factor analysis of the words people use in everyday language to describe personality, the lexical approach to personality. The Big Five consist of five broad personality traits: Extraversion, Agreeableness, Neuroticism, Conscientiousness, and Openness. A self-report questionnaire has been developed to measure people's standing on each factor by computing how much agree that various statements describe them (Cloninger, 2004, pp. 240-241).

Züniga et al., (2017) used the Big Five Questioner in a related study, examines the relationship between peoples' personality traits and social media uses with data from 20 societies. Across diverse societies, findings suggest that while extraversion, agreeableness, and conscientiousness are all positive predictors of different types of social media use, emotional stability and openness are negatively related to them.

There are some adaptation studies of the big five personality inventories. Such as Horzum, Ayas and Padir (2017) adapted the big five personality traits scale to Turkish culture developed by Rammstedt and John (2007) to measure the big five personality traits. The research was conducted with three different groups for translation and back translation, linguistic equivalence, and validity-reliability studies.

The "big five" is a broad category of personality traits. While there is a significant body of literature supporting this five-factor model of personality, researchers don't always agree on the exact labels for each dimension.

Table 1. The Big Five Factors of Personality

Factor	Description of High Scorer	Description of Low Scorer
Extraversions (E)	Talkative Passionate Active Dominant Sociable	Quiet Unfeeling Passive
Agreeableness (A)	Good-natured Soft-hearted Trusting	Irritable Ruthless Suspicious
Neuroticism (N)	Worrying Emotional Vulnerable Anxious	Calm Unemotional Hardy Self-controlled Sense of well-being
Openness (O)	Creative Imaginative Prefers variety	Uncreative Down-to-earth Prefers routine
Conscientiousness (C)	Conscientious Hardworking Ambitious Responsible	Negligent Lazy Aimless Irresponsible

Source: Cloninger, 2004, 242.

A summary can be as follows Cherry (2019)

Openness: This trait features characteristics such as imagination and insight. People who are high in this trait also tend to have a broad range of interests. They are curious about the world and other people and eager to learn new things and enjoy new experiences.

People who are high in this trait tend to be more adventurous and creative. People who are low in this trait are often much more traditional and may struggle with abstract thinking.

Conscientiousness: Standard features of this dimension include high levels of thoughtfulness, good impulse control, and goal-directed behaviours. Highly conscientious people tend to be organized and mindful of details. They plan ahead, think about how their behaviour affects others, and are mindful of deadlines.

Extraversion: Extraversion (or extroversion) is characterized by excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness. People who are high in extraversion are outgoing and tend to gain energy in social situations. Being around other people helps them to feel energetic and excited. People who are low in extraversion (or introverted) tend to be more reserved and have to expend energy in social settings. Social events can feel draining and introverts often require a period of solitude and quiet in order to recharge.

Agreeableness: This personality dimension includes attributes such as trust, altruism, kindness, affection, and other pro-social behaviours. People who are high in agreeableness tend to be more cooperative while those who are low in this trait tend to be more competitive and sometimes even manipulative.

Neuroticism: Neuroticism is a trait characterized by sadness, moodiness, and emotional instability. Individuals who are high in this trait tend to experience mood swings, anxiety, irritability, and sadness. Those who are low in this trait tend to be more stable and emotionally resilient.

Marketers spend millions of dollars trying to understand why people buy products and services. Sometimes it seems that there is no reason for a purchase, but in reality there is always a reason.

Advertising can strongly persuade consumers into immediate buying, or it can have a more subtle effect by reinforcing people's existing propensities to buy certain brands. The psychological processes underlying these two mechanisms also differ. The strong model focuses on consumers' immediate psychological or behavioural reactions where explicit advocacy and rationales of advertising messages are vital. The weak model emphasizes brand awareness where advertising is viewed as a reminder of a brand or source of information. For example, according to the strong model, Mark may decide to go to the shopping mall immediately after viewing a television commercial that says,

“40% off any purchase at Macy’s”. On the other hand, David may buy Coke instead of Pepsi because he has greater familiarity with the Coke brand name, although both brands were initially in his consideration set (Vargas, Yoon, 2004, p. 55).

Consumer psychology is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires. The decision to consume typically is the culmination of a series of stages that include need recognition, information search, evaluation of alternatives, purchase, and post purchase evaluation.

Indeed, many consumers’ behaviours, including addiction to gambling, shoplifting, and even shopping itself, are quite irrational and may literally harm the decision maker. (Solomon, 2004, p. 484)

People’s allegiances to certain sneakers, musicians, or even soft drinks help them to define their place in modern society, and these choices also enable people to form bonds with others who share similar preferences.

Following are some of the types of relationships a person might have with a product:

- Self-concept attachment. The product helps to establish the user’s identity.
- Nostalgic attachment. The product serves as a link with a past self.
- Interdependence. The product is a part of the user’s daily routine.
- Love. The product elicits emotional bonds of warmth, passion, or other strong emotion (Solomon, 2004, p. 484).

One very common way in which to divide consumers is along demographic dimensions such as the following: Age, Gender, Social class and income, Family structure, Race and ethnicity, Geography (Solomon, 2004, p. 489).

The trait theory focuses on the quantitative measurement of personality traits, that is, identifiable characteristics that define a person. Some specific traits relevant to consumer behaviour include innovativeness (i.e., the degree to which a person likes to try new things), materialism (i.e., the amount of emphasis placed on acquiring and owning products), self-consciousness (i.e., the degree to which a person deliberately monitors and controls the image of the self that is projected to others), need for cognition (i.e., the degree to which a person likes to think about things and, by extension, expend the necessary effort to process brand information), and self-monitoring (i.e., the degree to which a person is concerned with the impression that his or her behaviour makes on others (Solomon, 2004, p. 491).

Research shows that there are some reasons why people buy anything. Whether it is a Porsche, perfume, or a poodle, you’d be surprised at how we are all driven by a limited number of impulses no matter what the product. Here is a list of buying reasons:

1. To make money; 2. To save money; 3. To save time; 4. To avoid physical effort; 5. To be attractive to others; 6. To gain praise from others; 7. To have peace of mind; 8. To be unique or special or to feel significant; 9. To feel connected with others; 10. To protect the family; 11. To be stylish (Schwerdt, 2012).

Osborne (2019) excessive shopping is a big problem. Shopping addiction can be a serious and destructive behavioural health addiction. Although it has been documented in medical journals for more than 100 years, the American Psychiatric Association does not officially recognize shopping addiction in its Diagnostic and Statistical Manual for Mental Health Disorders (DSM-5). Researchers and clinicians continue to debate the best way to classify compulsive and excessive shopping—whether as an addictive, obsessive-compulsive, impulse-control, or mood disorder. They also continue to debate the name of this disorder, so you may hear it called shopping addiction, compulsive buying disorder, shopaholism, compulsive shopping, compulsive consumption, impulsive buying, or compulsive spending (Andreassen et al., 2015 as cited in Osborne, 2019).

As Mehrmann (2017) indicated there are many reasons customers decide to spend their hard earned money to make a purchase, but who knows why they decided to spend it with. Learn these factors that contribute to buyer motivation if you want to sell more. Prestige, Luxury, Style, Quality, Reliability, Durability or Reputation are the general objectives that producers bear in mind.

Shopping addiction is characterized by an intense preoccupation with buying and shopping, frequent episodes of buying, and an uncontrollable urge to shop despite serious negative consequences. If you have a shopping addiction, you may feel like you’re on an emotional rollercoaster. You may: Spend a lot of time thinking about shopping; Get anxious before a purchase; Feel relief or euphoria after a purchase; Feel guilt or shame later.

Although compulsive buying has only become the focus of clinical attention and research investigation in the last few decades, its presence has been noted for almost a century. Emil Kraepelin (1915) (Kraepelin, 1915 as cited Swan-Kremeier, Mitchell, Faber, 2005: 185) was first to define the problem of compulsive buying in 1915 in his description of “oniomania” or “buying mania.”

Kraepelin's original description was later expanded by Bleuler (1924), who commented on the uncontrollable and impulsive nature of the symptoms. Recent decades have brought a reemergence of interest in describing, defining, and classifying compulsive buyers in both the consumer behaviour and psychiatric literature (Bleuler, 1924 cited Swan-Kremeier, Mitchell, Faber, 2005: 185). Although some of the literature uses the term "compulsive shopper", we will use the term "compulsive buyer" which seems to better capture the behaviour of interest that results in significant psychosocial problems. Swan-Kremeier, Mitchell, Faber, (2005).

Compulsive buying behaviour (CBB), otherwise known as shopping addiction, pathological buying or compulsive buying disorder, is a mental health condition characterized by the persistent, excessive, impulsive, and uncontrollable purchase of products in spite of severe psychological, social, occupational, financial consequences (Müller et al., 2015).

The results of this study suggest that CBB should be considered a behavioural addiction, in the same manner as other excessive behaviours (such as sexual addiction, gambling, IGD, or Internet addiction). At present, an integrative model for describing the underlying mechanisms which lead to the onset and development of the CBB is not available. Additional empirical evidence is needed to identify core contrasting factors so as to clarify whether CBB represents a distinct psychiatric entity or is better conceptualized as an epiphenomenon of other psychiatric disorders characterized by addictive and/or impulse control behaviours (Granero et al., 2016).

The European Commission defines e-commerce as "any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact" and "all business transactions that are carried out electronically with a view to improving the efficiency and effectiveness of market and business processes" (Bighiu, Manolica, Roman: 2015).

In this study, "Big-Five Personality Questionnaire" was used. This test apparatus originally was developed by Goldberg (1992). Results: In the translation study B5KT-50-Tr explained 35.58% of the total variance by five factors and CFA results showed model-fit. Internal consistencies of the factors of the test were calculated between 0.65 and 0.79, and test-retest coefficients were between 0.55 and 0.80. As for the comparison study, B5KT-50-Tr explained 36.10% of the total variance and 5FPI-SF explained 32.11% of the total variance. According to the results of CFA, both tests showed model-fit at a close level to

each other. Internal consistencies of the factors of B5KT-50-Tr were between 0.68 and 0.79, and for 5FPI-SF were between 0.68 and 0.85. The correlation coefficients of the factors of the two tests with each other were found between 0.51 and 0.66. Although there was no difference between IRT item parameter values between the two tests, mean factor scores of all factors were found different. Conclusion: Translation study show that B5KT-50-Tr has met the basic psychometric requirements. As for the comparison study, it has been observed that the tests are largely similar in terms of the features compared. The obtained results are discussed in terms of the details (Tatar, 2017).

There are 50 items such as: "I am the favourite of the meetings. I'm not interested in others. I'm always ready." People relating the items according to the five-point likert-type scale such as Strongly agree=5 Agree=4 Neutral=3 Disagree=2 Strongly disagree=1

The other questioner of this study is Compulsive Online Shopping Behaviour adapted by Bozdağ and Yalçınkaya Alkar (2018) via Bergen Shopping Addiction Scale. The scale was developed to be used for online shopping and involves 28 items. (0) Totally Disagree

(1) Disagree (2) Neither agree nor disagree (3) Agree (4) Completely Agree The Cronbach Alpha internal consistency coefficient of the developed scale was found to be .95. Some samples from the questioner are as follows: 1. Shopping online is the most important thing in my life. 2. I always think about shopping online. 3. I spend a lot of time thinking about, or planning to shop online.

Method

This study is designed as quantitative. Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon (Labaree, 2009). 243 university students (mean of age is 22) participated in the study.

Two different test apparatus Big-Five Personality Questionnaire (Tatar, 2016) and Compulsive Online Shopping Behaviour Bozdağ and Yalçınkaya Alkar (2018) were used in to study to collect data.

Results

Table 2 illustrates gender and age distribution of the sample. Total 243 participants, 177 women and 66 men enrolled in the study. The study was conducted upon university students so the age distribution and participants were also illustrated in the table.

Table 3 illustrates descriptive statistics of the study according to testing variables. The table

includes the number of participants, mean, standard deviation, minimum and maximum scores.

According to Table 3, male students have more tendencies to online shopping according to females, but this is not statistically significant.

There are only two personality demotions that have a negative correlation between online shopping. These are agreeableness and conscientiousness. People who are less agreeable and conscientious are more apt to shopping online dependency.

Table 2. Demographics of the Study

Gender	177 female (%72.8)	66 male (%27.2)	Total 243	
	18 and younger	19-20	21-22	23 and older
Age	16 (%6.6)	64 (%26.3)	77 (%31.7)	86 (%35.4)

Table 3. Descriptive Statistics of the Study According to Testing Variables

	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect/ Imagination	Online shopping
N Valid	243	243	243	243	243	243
Missing	0	0	0	0	0	0
\bar{X}	31,82	39,66	39,59	29,16	38,36	21,62
Std. Deviation	6,85	5,36	6,01	7,36	4,91	1,86
Minimum	12,00	22,00	20,00	10,00	22,00	,00
Maximum	50,00	50,00	50,00	50,00	50,00	112,00

Table 4. Correlations between Agreeableness and Online Shopping

		Online Shopping	Agreeableness
Online Shopping	Pearson Correlation	1	-,277**
	Sig. (2-tailed)		,000
Agreeableness	Pearson Correlation	-,277**	1
	Sig. (2-tailed)	,000	
	N	243	243

** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Correlations between Conscientiousness and Online Shopping

		Online Shopping	Conscientiousness
Online Shopping	Pearson Correlation	1	-,148*
	Sig. (2-tailed)		,021
Conscientiousness	Pearson Correlation	-,148*	1
	Sig. (2-tailed)	,021	
	N	243	243

* Correlation is significant at the 0.05 level (2-tailed).

Conclusion

Agreeableness is a tendency of being more good-natured, soft-hearted and trusting meanwhile it is being less irritable, ruthless and suspicious (Cloninger, 2004). According to findings, it can be concluded that people who show more shopping online behavior are more irritable, ruthless and suspicious. People who are more likely to buy from the internet have a lower agreeable tendency.

Conscientiousness is another personality tendency that is related with this study and shows significant deference of shopping online. Conscientiousness is the character of a person who shows an awareness of the impact. Conscientious people are generally more goal-oriented in their motives, ambitious in their academic efforts and at work, and feel more comfortable when they are well-prepared and organized (Melchers et al, 2016). People who are more likely to buy from the internet also have lower conscientiousness.

This study indicates a lower relation between online shopping and personality tendencies. Personally uncomfortable costumers have a more online shopping behaviour. Perhaps apart from quantitative studies, researchers should carry out more qualitative studies. As a limit, this study was conducted on university students. Such kind of studies should be carried out on teenagers, high school students, young adults and the elderly.

Proposals for this article are; people should pro-decide any goods, which they are thinking of buying, whether they are necessary or not. From early age people should get formal or informal education, or short term courses on basic economic action. Excessive online buyers should be warned by governmental forces such as financial police. Parents should control their children who are addicted to online shopping.

References

- Acar, A.S., Polonsky, M. (2007). Online Social Networks and Insights into Marketing Communications. *Journal of Internet Commerce*, 6:4, 55-72, DOI: 10.1080/15332860802086227
- Andreassen, C.S., Griffiths, M.D., Pallesen, S., Bilder, R.M., Torsheim, T., Aboujaoude, E. (2015). The Bergen Shopping Addiction Scale: reliability and validity of a brief screening test. *Frontiers in Psychology*, 6, 1374.
- Bighiu, G., Manolica, A., Roman, T. (2015). Compulsive Buying Behavior on the Internet. *Procedia Economics and Finance*. 20. 10.1016/S2212-5671(15)00049-0.
- Black, D.W. (2007). A review of compulsive buying disorder. *World Psychiatry*, 6(1), 14-18.
- Bleuler, E. (1924). *Textbook of psychiatry*. New York: MacMillan.
- Bozdağ, Y., Yalçinkaya Alkar, Ö. (2018). Adaptation of Bergen Shopping Addiction Scale to the Compulsive Online Shopping Behavior. *Dependency Journal*. 19 (2): 23-34.
- Cherry, K. (2019). The Big Five Personality Traits. <https://www.verywellmind.com/the-big-five-personality-dimensions-2795422>.
- Cloninger, S. (2004). *Theories of Personality: Understanding Persons*. (Fourth Edition). New Jersey: Pearson Prentice Hall.
- Duncan, E. (2019). E-commerce worldwide - Statistics, Facts. <https://www.statista.com/topics/871/online-shopping/>.
- Eysenck, H.J. (1947). *Dimensions of Personality*. London: Methuen.
- Goldberg, L.R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4(1): 26-42.
- Granero, R. et al. (2016). Compulsive Buying Behavior: Clinical Comparison with Other Behavioral Addictions. *Front Psychol*. 7: 914, doi: 10.3389/fpsyg.2016.00914.
- Horzum, M.B., Ayas, T., Padır, M.A. (2017). Adaptation of Big Five Personality Traits Scale to Turkish Culture. *Sakarya University Journal of Education*, 7(2), 398-408.
- Marketing teacher (2019, 01, 12). Why People Buy. Retrieved from <https://www.marketingteacher.com/why-people-buy/>.
- Kraepelin, E. (1915). *Psychiatrie*. Leipzig: Verlag Von Johann Ambrosius Barth.
- Labaree, R. (2009). *Research Guides: Organizing Your Social Sciences Research Paper: Qualitative Methods*.
- Mehrmann, J. (2017). Why People Buy (2019, 01, 10). Retrieved from <https://www.businessknowhow.com/marketing/reasonsbuy.htm>
- Melchers, M.C., Li, M., Haas, B.W., Reuter, M., Bischoff, L. and Montag, C. (2016). Similar Personality Patterns Are Associated with Empathy in Four Different Countries. *Frontiers in Psychology*. Retrieved from <http://journal.frontiersin.org/article/10.3389/fpsyg.2016.00290/full>.
- Müller A., Mitchell J.E., de Zwaan M. (2015). Compulsive buying. *Am. J. Addict*. 24, 132-137. 10.1111/ajad.12111.
- Norman, W.T. (1967). 2,800 personality trait descriptors: Normative operating characteristics for a university population. Department of Psychology, University of Michigan.
- Osborne, C.O. (2019, 02, 05). Can You Have a Shopping Addiction? Retrieved from <https://www.projectknow.com/behavioral-addictions/shopping/>.
- Pereira, H.G., Salgueiro, M.F., Mateus, I. (2014). Say yes to Facebook and get your customers involved! Relationships in a world of social networks. *Science Direct*. 57 695-702. <http://dx.doi.org/10.1016/j.bushor.2014.07.001>.

- Rammstedt, B., P. John, Oliver. (2007). Measuring Personality in One Minute or Less: A 10-Item Short Version of the Big Five Inventory in English and German. *Journal of Research in Personality*. 41. 203-212. 10.1016/j.jrp.2006.02.001.
- Schwerdt, B. (2012). The Top 11 Reasons Why People Buy Your Product/Service. <https://www.copyschool.com/the-top-11-reasons-why-people-buy-your-productservice/>.
- Smith, G.M. (1967). Usefulness of peer ratings of personality in educational research. *Educational and Psychological Measurement*, 27, 967-984.
- Solomon, M.R. (2004). *Consumer behavior: Buying, having, and being* (6th ed.). Upper Saddle River, NJ: Prentice Hall.
- Swan-Kremeier L.A., Mitchell J.E., Faber R.J. (2005) Compulsive Buying: A Disorder of Compulsivity or Impulsivity?. In: Abramowitz J.S., Houts A.C. (eds) *Concepts and Controversies in Obsessive-Compulsive Disorder*. Series in Anxiety and Related Disorders. Springer, Boston, MA.
- Tatar, A. (2017). Translation of Big-Five Personality Questionnaire into Turkish and comparing it with Five Factor Personality Inventory Short Form. *Anatolian Journal of Psychiatry* 2017; 18(1): 51-61.
- Vergas, P.T., Yoon, S. (2004). "Advertising Psychology." (In *Encyclopedia of Applied Psychology*). (Edt. Charles D. Spielberger).
- Zúniga, H.G. et al., (2017). Personality Traits and Social Media Use in 20 Countries: How Personality Relates to Frequency of Social Media Use, Social Media News Use, and Social Media Use for Social Interaction. *Cyberpsychology, Behavior, and Social Networking*. 20 (9) 540-552 DOI: 10.1089/cyber.2017.0295.