Atıf Bilgisi: Şahin, T., Çakar, T., Ertuğrul, S. & Yığman, C. (2022). Underpinnings of psychological differences from the point of saving behavior. *Kuram ve Uygulamada Sosyal Bilimler Dergisi*, *6*(2), 162-179. Doi: 10.48066/kusob.1026601

Kuram ve Uygulamada SOSYAL BİLİMLER DERGİSİ

SOCIAL SCIENCES: Theory & Practice

Aralık 2022
***Yıl*: 6 *Sayı*: 2 *ss*. 162-179**
***Makale Türü*:** *Araştırma Makalesi*
Geliş Tarihi: 23.11.2021
Kabul Tarihi: 29.12.2022

ISSN: 2619-9408

December 2022
***Volume*: 6 *Issue*: 2 *pp*. 162-179**
Article Type: *Research Article*
Submitted: 23.11.2021
Accepted: 29.12.2022

TASARRUF ETME DAVRANIŞININ ALTINDA YATAN PSİKOLOJİK FARKLILIKLAR*

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Öz

Bireyler, psikolojik özelliklere bağlı olarak para idaresi davranışları bakımından farklılaşırlar. Bu özellikler bireyleri finansal olarak olumlu veya olumsuz davranışlar sergilemeye yönlendirebilir. Bir para idaresi davranışı olarak tasarruf etme davranışı; tasarrufun süresi, tarzı ve tasarruf davranışının altındaki motivasyon bakımından, farklı psikolojik öncüllere sahiptir. Bu araştırmada, tasarruf etme davranışının zamansal tarafına, düzenli tasarruf etme davranışına odaklanıldı. Araştırmanın örneklemi, 18 yaşın üstündeki 238 bireyden oluşuyordu. Katılımcılar; kişilik özellikleri, benlik saygısı, materyal ve paraya atfedilen değer, kompülsif ve anlık satın alım yatkınlıkları, öz-kontrolün farklı boyutları ve dürtüselliğe odaklanan psikolojik ölçekleri ve finansal okuryazarlığa, bilgiye ve davranışlara odaklanan anketleri doldurdular. İstatistiksel analizler, düzenli olarak bir miktar tasarruf eden ve etmeyen insanlar arasında ortalama anlık satın alım, kompülsif satın alım, dürtüsellik, elde tutma-zaman ve dışadönüklük farklılıkları olduğunu gösterdi. Ayrıca, binary lojistik regresyon modeli, elde tutma-zaman, dürtüsellik, dışadönüklük, uyumluluk ve yaşantısal öz-kontrol değişkenlerinin tasarruf eden ve etmeyen insanları anlamlı bir şekilde ayırabildiğini gösterdi. Katılımcıların finansal özellikleri, sonuçlar hakkında içgörüler sağladı.

Anahtar Kelimeler: Para idaresi, finansal davranış, tasarruf etme davranışı, kişilik.

Underpinnings of Psychological Differences from the Point of Saving Behavior

Abstract

Individuals differ in terms of money management behaviors based on psychological characteristics. These characteristics may lead individuals to act in financially favorable or unfavorable fashions. Saving behavior, as a subbranch of money management behavior, has a variety of different psychological antecedents depending on the duration, style, and intention. In the current research, we primarily focused on the temporal aspect of saving, regular saving behavior. The sample consisted of 238 individuals above the age of 18. Participants filled out psychological surveys measuring personality traits, self-esteem, the value attributed to the materials and money, compulsive and impulsive buying tendencies, different aspects of self-control, and impulsiveness, besides financial surveys focusing on financial literacy, financial knowledge, and financial practices. Statistical analysis showed that there were significant differences between the individuals who save regularly and those who do not in terms of average impulsive buying, compulsive buying, impulsivity, retention-time, and extraversion scores. Also, the binary logistic regression model indicated that time-retention, impulsivity, extraversion, agreeableness, and experiential self-control

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can successfully discriminate between savers and non-savers. Financial characteristics of participants provided further insights about the results.

Keywords: Money management, financial behavior, saving behavior, personality.

Introduction

Research about the concept of saving was usually conducted by experts in economics a decade ago (Nyhus & Webley, 2001), but attempts to reveal behavioral and cognitive aspects of the antecedents of saving behavior increased rapidly over the last decade. Saving can be defined as avoiding expenditures for a time interval to benefit from later consumption opportunities (Wärneryd, 1989). As reported by Nyhus and Webley (2001), saving behavior has different styles and the antecedents of each style might differ based on psychological characteristics. In this respect, the form of saving can be examined through three different aspects namely duration, style, and intention. None of the aspects can provide a broad perspective on their own, which ultimately requires further attention from the researcher on the combination of these aspects together. Duration accompanies the timespan which the saving behavior occurs, style accompanies which financial tools are used throughout the saving process, and intention accompanies whether saving behavior is performed consciously. At first look, longer durations, complex financial tools, and intentionality seem like strong predictors of overall saving amount, which in fact do not have to be. For instances, one may save regularly but spend more than savings; on contrary, another may save huge amounts in a restricted period of time. One may save through complex but risky financial tools and lose the savings; on contrary, another may simply put money into a bank account. Again, one may intentionally save a small amount but another may simply forget a huge amount put aside. Current study mainly concentrates on the psychological factors contributing to regular saving behavior, regardless of the style, intention, and amount. Previous research on regular saving behavior emphasized the importance of demographic factors such as income, number of family members, number of children, number of money-making individuals in a family, type of savings, repayment of loans, employment type, health status, education, and age (Balasubramanian, 2015; Fisher & Anong, 2012). Also, individuals saving for either retirement or the emergent situations were more likely to have a regular saving pattern (Fisher & Anong, 2012). To our knowledge, no research created a single predictive model for regular saving behavior with a considerable amount of demographic, financial, and psychological variables.

Psychological Aspects of Saving

Money management is a financial behavior that includes saving, making budgets, and spending; and it is related to personality characteristics. Conscientious individuals have a great ability to manage their own finances even after controlling for demographic variables and this relationship originated from positive financial attitudes and future orientation. Conscientiousness was the trait that has the highest explanatory power in terms of money management and financial planning skills among all personality traits included in the Big Five personality model (Donnelly et al., 2012; Ghaffar et al., 2022); it also indirectly supports savings and undermines impulsive buying (Asebedo et al., 2019; Fenton-O'Creevy & Furnham, 2020). Among households, having an emotionally stable householder was increasing liquid savings and individual savings besides decreasing impulsive buying and delay in retirement savings. On contrary, neurotic individuals were more likely to make financial plans. In households involving just couples, extraversion was found to be related to economizing less along with worse financial planning and spending skills. Introversion, on the other hand, is related to delaying retirement savings (Piotrowska, 2019). In households lacking partners, agreeableness was negatively associated with liquid savings. In the case of total savings, emotional stability showed positive and autonomy showed negative

relationships. Emotional stability also had a positive relationship with having saving plans and openness to new experiences trait indirectly decreases saving behavior (Asebedo et al., 2019; Fenton-O'Creevy & Furnham, 2020; Ghaffar et al., 2022; Nyhus & Webley, 2001).

H_1: Conscientiousness trait will positively, whereas the rest of the personality traits will negatively predict regular saving behavior.

Valuing materials is generally associated with unfavorable financial outcomes. Perhaps, the properties of material values signal where the specific set of tendencies which eventually lead to these outcomes originated from. Richins and Dawson (1992) referred to three components of materialism that were frequently used throughout the literature, compiled from different scientific perspectives: Evaluating success from the perspective of quantity and quality of the material goods owned, considering material goods as a key for reassurance, and well-being, and material goods being of capital importance in materialists' life. Individuals with low material values tend to be budgeters, have mutual funds which can be evaluated as a favorable attitude for saving, and have less credit cards compared to their highly materialistic counterparts (Watson, 2003). In accordance with the other findings, individuals high on materialism had an inclination toward indebtedness and making fewer saving decisions (Flores & Vieira, 2014; Pangestu & Karnadi, 2019). However, in the case of retirement savings, materialist individuals are not different from their non-materialist counterparts (Kimiyagahlam et al., 2019)

H_2: Material values will negatively predict regular saving behavior

Notion of self-esteem deals with how individuals evaluate themselves in a broad range of dimensions (Rosenberg, 1965). Although self-esteem fell short of predicting impulsive buying tendencies which may potentially negatively contribute to saving behavior, there was a significant negative association between these constructs (Silvera et al., 2008). Self-esteem was a significant predictor of money management skills for young adults, higher self-esteem scores indicated better ability for money management (Juen et al., 2013) and it could predict the amount of savings both directly and indirectly through financial knowledge (Tang & Baker, 2016). Besides, high self-esteem individuals invest and take risks more (Sekścińska et al., 2021).

H_3: Self-esteem will positively predict regular saving behavior.

Both impulsive and compulsive buying behaviors reflect nonoptimal purchasing tendencies (Faber & O'Guinn, 1992; Rook & Fisher, 1995) and were frequently associated with adverse financial practices besides outcomes accordingly. According to Fenton-O'Creevy and Furnham (2020), individuals with greater household earnings and younger females buy impulsively more. Also, credit card debtors were significantly more likely to have higher compulsive and impulsive buying scores compared to non-debtors (Wang & Xiao, 2009). Impulsive buyers tend to have behavioral patterns involving risky indebtedness (Abrantes-Braga & Veludo-de-Oliviera, 2020). On the other hand, individuals who engage in compulsive buying practices save money for their retirement, especially if they also evaluate money as part of their current status (Piotrowska, 2019). Also, financial literacy undermines impulsive buying practices through self-control (Ayuningtyas & Irawan, 2021).

H_4: Impulsive and compulsive buying behaviors will negatively predict regular saving behavior.

The Money Attitudes Scale developed by Yamauchi and Templer (1982) investigates four distinct types of attitudes (i.e., power-prestige, time-retention, distrust, and anxiety) that individuals have towards money. The distrust factor is characterized by adverse feelings such as uncertainty and doubt on money-related topics, the anxiety factor is about whether the individual considers money as both conservation from and a source of anxiety, the power-prestige factor is related to considering

money as a source of status and success, and time-retention factor is about how well one is prepared for the future financially. The anxiety factor was a negative and the distrust factor was a positive predictor of regularly saving behavior but after adding financial management into the model, distrust became no longer a significant predictor (Hayhoe et al., 2012). Individuals associating money with anxiety, status, and success were prone to gamble more; whereas associating money with distrust makes individuals less likely to perform gambling behavior (Lostutter et al., 2019).

H_5: Time-retention factor will positively, whereas distrust, anxiety, and power-prestige factors will negatively predict regular saving behavior.

UPPS-P Impulsive Behavior Scale was developed for measuring five distinct aspects (i.e., premeditation, perseverance, sensation-seeking, positive urgency, and negative urgency) of impulsive behavior (Cyders et al., 2007). Specifically, the negative urgency factor deals with understanding whether individuals are prone to act without thinking when encountering adverse emotions (Whiteside & Lynam, 2001). Negative urgency was positively associated with compulsive buying behavior and financial management partially mediated this relationship (Alemis & Yap, 2013). Also, impulsiveness could negatively predict pursuing an economic budget (Kidwell et al., 2006).

H_6: Impulsivity will negatively predict regular saving behavior.

Self-control is an important psychological construct when it comes to explaining financial tendencies. For instance, people who have high self-control have significantly preferable financial behaviors compared to those who have low self-control. The degree of self-control positively impacts whether the individuals saved money for the past six months and positively predicts saving behavior in general. Additionally, individuals with lower self-control had more anxiety when it comes to financial topics than their self-controlled counterparts (Strömbäck et al., 2017; Wai, 2020). Among children and adolescents, self-control increases the likelihood of saving but not in preschoolers (Kamawar et al., 2019; Suwatno et al., 2021; Trzcińska et al., 2018)

H_7: All aspects of self-control will positively predict regular saving behavior.

Financially literate individuals were more willing to save (Gilenko & Chernova, 2021), more likely to save (Ariffin et al., 2017; Suwatno et al., 2021; Widyastuti et al., 2016), have savings to be used for emergent situations (Babiarz & Robb, 2013), and save for retirement (Sarpong-Kumankoma, 2021). In parallel, financially illiterate individuals are more likely to be overindebted (Gathergood, 2012).

H_8: Financial literacy will positively predict regular saving behavior.

Method

Procedure

We preferred Qualtrics XM (https://www.qualtrics.com/) for the data collection process which is a popular tool for conducting online experiments. The Snowball sampling technique enabled us to reach more participants. Also, individuals working in Tam Factoring were informed about the current experiment through text messages to increase participation. Participants first read the informed consent and the ones who accepted to participate in this experiment started to fill out the questions. Total of 11 surveys including 218 questions with demographic variables were presented to the participants. For each question, we used the forced answer option, in other words, participants had to mark the questions prior to the subsequent questions. The primary motivation of selecting this option was to have a complete data set, because in online experiments, people may choose not to answer questions arbitrarily which

may affect the quality of the data. Statistical analyses were conducted with IBM SPSS (Statistical Package for the Social Sciences) 24th version.

Participants filled Five-Factor Personality Inventory (Goldberg, 1992), Material Values Scale (Richins & Dawson, 1992), Impulsive Buying Scale (Rook & Fisher, 1995), Compulsive Buying Scale (Faber & O'Guinn, 1992), Rosenberg Self-Esteem Scale (Rosenberg, 1965), Self-Control Schedule (Rosenbaum, 1980), Barratt Impulsiveness Scale-11 (Patton et al., 1995), Money Attitudes Scale (Yamauchi & Templer, 1982), Financial Literacy Scale (Van Rooij et al., 2012), certain items from Financial Literacy Diagnostic Survey conducted in Russia (World Bank, 2013), and a series of questions developed by Güler and Tunahan (2017) for assessing some financial characteristics of the participants, respectively. There was also a question focusing on whether participants have a focused or dispersed payment style, in any credit-related payment. The rest of the questions were about demographics, including age, marital status, sex, educational background, and amount of active working years. The dependent variable was the "Do you save regularly?" question rated on two options, either yes or no.

Participants

18 years old or older individuals participated in this experiment. A total of 424 participants started to fill out the surveys. 184 participants did not complete the psychological surveys and two participants were under 18 years old; therefore, they were excluded from the data set. In total, 238 participants (108 females, 113 males, two individuals did not specify, and the rest were missing) individuals participated in this experiment (M_{age} = 37.04, *SD* = 11.13, Range = 19-59). Thirty percent of the participants were 40 years old or older. There were 125 (52.5%) married, and 98 (41.2%) single participants in the data set. Two people did not have an educational background (0.8%), 26 participants had a high school degree (10.9%), 157 participants had a college degree (66.0%), 36 participants had master's degrees (15.1%), and two people had a Ph.D. degree (0.8%). The average working year was 14.67 years with a standard deviation of 10.73, ranging from 0-44 years. One hundred twenty-four (52.1%) participants were paying their credits actively around the time that the experiment was conducted whereas 98 participants (41.2%) were not. Seventy (29.4%) participants indicated that they had a focused credit repayment style (paying for only one credit at a month) whereas 52 (21.8%) participants had a dispersed style.

Materials

Five Factor Personality Inventory

Goldberg (1992) developed the Five Factor Personality Inventory for measuring openness to new experiences, conscientiousness, extraversion, agreeableness, and neuroticism. Five-Factor Personality Inventory includes 50 items, 10 items per subscale. Items (e.g., "I get stressed easily" for neuroticism; "I am quiet around strangers" for extraversion; "I feel little concern for others" for agreeableness; "I am always prepared" for conscientiousness; "I use difficult words" for openness to new experiences) were scored on a 5-point Likert scale (1 = Very inaccurate, 5 = Very accurate). Tatar (2017) translated Five Factor Personality Inventory into Turkish and the Cronbach's alpha value of each subscale except openness to new experiences reached adequate levels (α = 0.760 for neuroticism; α = 0.757 for extraversion; α = 0.731 for agreeableness; α = 0.794 for conscientiousness; α = 0.678 for openness to new experiences).

Buying Impulsiveness Scale

Rook and Fisher (1995) developed a 9-item unidimensional Buying Impulsiveness Scale for measuring the inclination of individuals to purchase goods "spontaneously, unreflectively, immediately, and kinetically". Items (e.g., "Sometimes I am a bit reckless about what I buy.") were scored on a 5-

point Likert scale (1 = Strongly disagree, 5 = Strongly agree). Turkish version of Buying Impulsiveness Scale by Okutan et al. (2013) reached adequate Cronbach's alpha value (α = 0.860).

Compulsive Buying Scale

Faber and O'Guinn (1992) developed a 7-item unidimensional Compulsive Buying Scale. Items (e.g., "If I have any money left at the end of the pay period, I just have to spend it.") were scored on a 5-point Likert scale (1 = Never, 5 = Very often). Turkish version of the Compulsive buying scale by Okutan et al. (2013) reached adequate Cronbach's alpha value (α = 0.830).

Self-Control Schedule

Rosenbaum (1980) developed a 36-item Self-Control Schedule for measuring three aspects of self-control as follows: Redressive self-control, reformative self-control, and experiential self-control. Items (e.g., "I often find it difficult to overcome my feelings of nervousness and tension without any outside help." for experiential self-control; "When I do a boring job, I think about the less boring parts of the job and the reward that I will receive once I am finished." for reformative self-control; "Often by changing my way of thinking I am able to change my feelings about almost everything." for redressive self-control) were scored on 6-point Likert scale (-3 = Very uncharacteristic of me, extremely nondescriptive, +3 = Very characteristic of me, extremely descriptive). Duyan et al. (2012) translated Self-Control Schedule into Turkish, and the Cronbach's alpha value reached adequate levels (α = 0.836 for experiential self-control; α = 0.758 for reformative self-control; α = 0.725 for redressive self-control).

Barratt Impulsiveness Scale (BIS-11)

Patton et al. (1995) revised the Barratt Impulsiveness Scale (BIS-10) and developed a 30-item BIS-11 for measuring impulsiveness on six dimensions as follows: Attention, motor, self-control, cognitive complexity, perseverance, and cognitive instability. Items (e.g., "I plan tasks carefully.") were scored on a 4-point Likert scale (1 = Rarely/Never, 4 = Almost Always/Always). Güleç et al. (2008) translated BIS-11 into Turkish, and the overall Cronbach's alpha value reached adequate levels whereas all the subscales except the first second-order factor did not reach by themselves (α = 0.780 for undergraduates; α = 0.810 for psychiatric patients; calculated overall for the scale).

Money Attitude Scale

Yamauchi and Templer (1982) developed a 29-item Money Attitude Scale for measuring whether individuals consider money as a source of power-prestige, distrust, anxiety, and time-retention. Items (e.g., "I behave as if money were the ultimate symbol of success." for power-prestige; "After buying something, I wonder if I could have gotten the same for less elsewhere." for distrust; "I show signs of nervousness when I don't have enough money" for anxiety; "I have money available in the event of another economic depression." for time-retention) were scored on 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). We acquired the Turkish translation of the Money Attitude Scale from Süer et al. (2017).

Rosenberg Self-Esteem Scale

Rosenberg (1965) developed the 10-item Rosenberg Self-Esteem Scale. Items (e.g., "I am able to do things as well as most other people.") were scored on a 4-point Likert scale (1 = Strongly disagree, 4 = Strongly agree). Çuhadaroğlu (1986, as cited in Özgüngör & Paksu, 2017) adapted the scale into Turkish.

Material Values Scale

Richins and Dawson (1992) developed an 18-item Material Values Scale for measuring three aspects of material values as follows: Success, centrality, and happiness. Items (e.g., "Some of the most important achievements in life include acquiring material possessions." for success, "I usually buy only the things I need." for centrality, and "I have all the things I really need to enjoy life." for happiness) were scored on 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). In the Turkish adaptation study by Ünal et al. (2013) two factors were extracted, and the overall Cronbach's alpha value reached adequate levels (α = 0.733).

Data Analysis

Statistical analyses were conducted with IBM SPSS (Statistical Package for the Social Sciences) 24th version.

Research Ethics

Bu çalışmada, Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi'nde belirtilen tüm kurallara uyulmuştur. Yönergede *Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler* başlığı altında açıklanan eylemlerden hiçbiri gerçekleştirilmemiştir.

Ethics Committee Decision

MEF University Ethics Committee, 14.12.2020, E-47749665-050.01.04-893

Results

Internal Consistency Analyses

Cronbach's alpha analysis was conducted to assess whether the internal consistencies of the scales were adequate. Five-Factor Personality Inventory showed good overall internal consistency levels except Openness to New Experiences subscale (α = .865 for extraversion, α = .876 for emotional stability, α = .851 for conscientiousness, α = .724 for agreeableness, and α = .633 for openness to new experiences). In the Turkish adaptation of the Material Values Scale, two factors were extracted differently than the original version and one of the factors did not reach adequate levels; therefore, scores were calculated overall. Material Values Scale, Impulsive Buying Scale, Compulsive Buying Scale, and Rosenberg Self-Esteem scale showed high internal consistencies (α = .869, α = .851, α = .846, and α = .882 respectively). The Self-Control Schedule includes redressive self-control, reformative self-control, and experiential self-control and all the subscales showed adequate internal consistency levels (α = .809, α = .839, α = .755 respectively). In the Turkish adaptation study of the Barratt Impulsiveness Scale-11, Cronbach's alpha value of the subscales did not reach adequate levels, but the overall internal consistency was high (α = .838). Lastly, Money Attitudes Scale showed adequate levels of internal consistency levels (α = .881 for power-prestige, α = .919 for time-retention, α = .703 for anxiety, and α = .782 for distrust).

Financial Characteristics

Considering the aim of the experiment, it is crucial to understand the general financial tendencies of the participants to have a better insight into how far the findings can be generalized. We asked a total of seven questions to the participants regarding financial literacy as presented in Table 1. People with low financial literacy, classified as having answered three questions or less correctly were occupying 33.2% of the all sample whereas 66.8% of the sample was having high financial literacy. Most people could correctly answer five questions whereas only six participants could not correctly answer any of those questions about financial literacy as presented in Table 1.

Table 1. Frequency and Percentage Distribution of Financial Literacy Questions

Total True Answers	Frequency	Percentage
0	6	2.5%
1	13	5.5%
2	22	9.2%
3	38	16.0%
4	44	18.5%
5	51	21.4%
6	43	18.1%
7	21	8.8%
Total	**238**	**100%**

Note. The style of the table was obtained from Güler and Tunahan (2017).

The content of the questions was presented in Table 2. There was a variety of questions that measures different aspects of financial literacy. For each content, there was only one question. Although participants thought that they knew the answer to the mathematical ability question, it is apparent that participants mostly struggled with that by far. On the other hand, the most correctly answered question was about the time value of money, correctly answered by more than 2/3 of all sample.

Table 2. Content and Correctness Distributions of the Financial Literacy Questions

Content of the Question	True		False		I don't know	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Mathematical Ability	106	44.5%	117	49.1%	15	6.3%
Interest Account	144	60.5%	75	31.5%	19	8.0%
Inflation Effect	166	69.7%	28	11.7%	44	18.5%
Time Value of Money	169	71.0%	45	18.9%	24	10.1%
Money Error	121	50.8%	92	38.6%	25	10.5%
Stock Knowledge	155	65.1%	54	22.7%	29	12.2%
Investment Diversification	146	61.3%	60	25.2%	32	13.4%

Note. The style of the table was obtained from Güler and Tunahan (2017).

Participants answered how well they know about seven different financial concepts and indicated their knowledge level ranging from one to three, with a no answer option, presented in Table 3. In general, participants were more knowledgeable about the delay interest rate and minimum payment amount; in contrast, less knowledgeable about default interest and interest rate cut fee.

Table 3. Knowledge Levels of Financial Concepts

	I know well	I know, but not in detail	I don't know at all	No answer
Monthly Statements	154 (64.7%)	47 (19.7%)	25 (10.5%)	12 (5%)
Default Interest	124 (52.1%)	57 (23.9%)	45 (18.9%)	12 (5%)

Trade Interest Rate	173 (72.7%)	35 (14.7%)	18 (7.6%)	12 (5%)
Delay Interest Rate	199 (83.6%)	22 (9.2%)	5 (2.1%)	12 (5%)
Minimum Payment Amount	207 (87.0%)	14 (5.9%)	5 (2.1%)	12 (5%)
Repayment Schedule	190 (79.8%)	31 (13.0%)	5 (2.1%)	12 (5%)
Interest Rate Cut Fee	151 (63.4%)	53 (22.3%)	22 (9.2%)	12 (5%)

Note. The style of the table was obtained from Güler and Tunahan (2017).

Participants were also asked to indicate the most important elements that they consider while choosing a personal loan. Results showed that most participants rely on interest, commission, and other expenses at the same time compared to the other options. In contrast, insurance was the least chosen option, as chosen by just one participant as presented in Table 4.

Table 4. The Most Important Factors for Personal Loans

	Frequency	**Percentage**
Interest Rate	67	28.2%
Filing Fee	6	2.5%
Insurance	1	0.4%
Interest + Commission + Other Expenses	154	64.7%
No Answer	10	4.2%

Note. The style of the table was obtained from Güler and Tunahan (2017).

There were 173 (72.7%) participants who indicated that they were regularly saving money whereas the rest of the participants 65 (27.3) indicated that they did not. Participants who committed regularly saving behavior indicated the reason among seven different statements and were asked to rank these statements from one to three. As indicated in Table 5, most individuals save for hard days and unexpected expenditures in the first place by far, and the motivation of increasing the current life standards followed this statement. On the other hand, saving for tradition, loving, and children were the least chosen options.

Table 5. Reasons for Saving Behavior

	1	**2**	**3**
For hard days and unexpected expenditures	109 (66.1%)	30 (18.2%)	18 (10.9%)
For retirement	8 (4.8%)	41 (24.8%)	23 (13.9%)
For my children	3 (1.8%)	16 (9.7%)	45 (27.3%)
For increasing my life standards in future	28 (17.0%)	47 (28.5%)	40 (24.2%)
I love saving rather than spending	1 (0.6%)	1 (0.6%)	6 (3.6%)
To be independent and making choices individually	16 (9.7%)	28 (17.0%)	30 (18.2%)
There is no reason, it is a tradition	1 (0.6%)	3 (1.8%)	3 (1.8%)

Note. 1, 2, and 3 indicates the rank of the options. Ratios were valid percentages.

Most individuals who did not save seemingly could not perform this behavior due to their income, as indicated by almost 2/3 of all samples. On the other hand, not being able to resist shopping and thinking that saving is pointless are less favorable reasons for not saving as compared to a loss of trust in financial institutions and income, as indicated in Table 6.

Table 6. Reasons for not Saving

	1	**2**	**3**
I don't trust financial institutions	10 (15.9%)	16 (25.4%)	19 (30.2%)
I can't save due to my income	41 (65.1%)	14 (22.2%)	3 (4.8%)
I think saving is pointless	3 (4.8%)	13 (20.6%)	23 (36.5%)
I can't resist shopping	5 (7.9%)	12 (19.0%)	14 (22.2%)

Note. 1, 2, and 3 indicates the rank of the options. Ratios were valid percentages.

Participants indicated what they would potentially do if their income ran out before the next payday. Among both groups, participants tended to decrease their expenditures and start saving in general. On the contrary, participants also reported that they would use credit cards. Obviously, non-savers tended to use credit cards and bank credits more than their saver counterparts. Using savings and working more and doing an additional job were preferable among savers compared to non-savers. Also, one other important issue was that 1/3 of the non-savers also indicated that they would use savings. This tendency clearly showed that although non-savers do not save regularly, they had savings too. Results were presented in Table 7.

Table 7. The Actions Taken Towards Lack of Money

	Savers	**Non-Savers**
Decreasing expenditures and saving	133 (76.9%)	45 (69.2%)
Borrowing from inner circle	19 (11.0%)	10 (15.4%)
Using savings	90 (52.0%)	21 (32.3%)
Using credit cards	71 (41.0%)	41 (63.1%)
Selling marketable	12 (6.9%)	2 (3.1%)
Using bank credit	23 (13.3%)	14 (21.5%)
Taking loan from usurers with high interest	0 (0.0%)	1 (1.5%)
Working overtime or doing extra work	44 (25.4%)	10 (15.4)

Note. Ratios were valid percentages. This question was asked in multiple choice format.

Participants indicated how they developed their money management skills as presented in Table 8. Among both groups, family members were the source of money management skills. The ratio is similar among groups in the college dimension as well. Savers learned from books and magazines rather than their friends whereas non-savers exhibited a reverse pattern.

Table 8. Where Participants Learned Money Management Skills

	Savers	**Non-Savers**
Family	129 (74.6%)	53 (81.5%)

College	29 (16.8%)	9 (13.8%)
Friends	31 (17.9%)	18 (27.7%)
Books and magazines	43 (24.9%)	12 (18.5%)

Note. Ratios were valid percentages. This question was asked in multiple choice format.

Principal Findings

Since the dependent variable was categorical, we preferred to calculate the mean scores for each scale and subscale rather than using cut-off points for the analyses. In line with our purpose, we converted the Self-Control Schedule to a 6-point Likert scale ranging from one to six. Also, we calculated the overall mean score for the Material Values Scale and Barratt Impulsiveness Scale-11 since at least one of the subscales did not exceed the adequate internal consistency level. To control the family-wise error rate for avoiding inflation of type-1 error, we used Bonferroni Adjustment. There were 15 planned t-tests; therefore, the new α level became 0.003.

A series of independent samples t-test was conducted with dependent variable of "Do you regularly save money?" question and independent variables of means of scales mentioned in the procedures section to fully understand whether there was a statistically significant difference between groups of people who save money and who do not. There were significant differences between groups in terms of impulsive buying scores $t(238)=4.170$, $p<.001$, such that people who save regularly ($M=3.87$, $SD=.67$) had significantly higher impulsive buying scores compared to people who do not ($M=3.44$, $SD=.77$); compulsive buying scores $t(238)=4.045$, $p<.001$, such that people who save regularly ($M=4.53$, $SD=.52$) had significantly higher compulsive buying scores compared to people who do not ($M=4.15$, $SD=.70$); impulsivity scores $t(238)=4.255$, $p<.001$, such that people who save regularly ($M=3.20$, $SD=.31$) had significantly higher impulsivity scores compared to people who do not ($M=3.00$, $SD=.34$; retention-time scores $t(238)=-5.243$, $p<.001$, such that people who save regularly ($M=1.98$, $SD=.78$) had significantly lower scores compared to people who do not ($M=2.58$, $SD=.81$); extraversion scores $t(238)=-3.206$, $p=.002$, such that people who save regularly ($M=2.34$, $SD=.72$) had significantly lower scores compared to people who do not ($M=2.66$, $SD=.66$). There were no significant differences between savers and non-savers in terms of material values, self-esteem, power-prestige, distrust, anxiety, agreeableness, conscientiousness, openness to new experiences, emotional stability, and self-control scores.

To understand whether there is a relationship between financial literacy and saving behavior, we used cut-off points determined for financial literacy scores. Individuals who correctly answered three or less questions were classified as financially illiterate whereas those who correctly answered four or more questions were classified as financially literate. Then, we conducted a chi-square test of independence to determine whether there was a relationship between dichotomous financial literacy and saving variables. Results showed that there was no relationship $X^2(1, N = 228) = 1.119$, $p<.29$, which meant that both financially illiterate and literate individuals were equally likely to save regularly.

We run binomial logistic regression analysis to see whether demographic variables could successfully predict regularly saving behavior as presented in Table 9.

Table 9. Demographic Variables Predicting Regularly Saving Behavior

SVariable	***B***	***SE***	**OR**	**95% CI**		***p***
				Lower	**Upper**	

Constant	15.383	38.891				
Gender[a]	-.435	.322	.647	.344	1.218	.177
Marital Status[a]	.289	.367	1.335	.650	2.741	.432
Educational Status[a]	-.125	.303	.882	.487	1.598	.680
Age[b]	-.004	.051	.996	.901	1.101	.937
Working Year[b]	.013	.050	1.013	.919	1.117	.794

[a] Gender, marital status, and educational status were categorical variables. Specifically, gender and marital status were dichotomous and educational status had seven categories as follows: Elementary School Degree, Secondary School Degree, High School Degree, Bachelor's Degree, Master's Degree, PhD. Degree, and No Degree.

[b] Age and working year were continuous variables.

As results indicated, none of the demographic variables including gender, marital status, educational status, age, and working year were significant predictors of regular saving behavior. Therefore, we did not add demographic variables in the second binomial logistic regression model.

To test our hypotheses, we conducted a binomial logistic regression again. Predictor variables were personality traits, material values, self-esteem, self-control, compulsive buying, impulsive buying, money attitudes, and impulsivity and the criterion variable was "Do you save regularly?" question with the answers of either "yes" or "no". Results of the binomial logistic regression analysis was presented in Table 10.

Table 10. Binomial Logistic Regression Predicting the Regular Saving Behavior

Variable	***B***	***SE***	**OR**	**95% CI**		***p***
				Lower	**Upper**	
Constant	12.292	4.062				
Impulsive Buying	-.001	.343	.999	.510	1.956	.997
Compulsive Buying	-.673	.388	.510	.238	1.091	.083
Self-Esteem	.274	.483	1.315	.511	3.388	.570
Power-Prestige[a]	.031	.374	1.031	.495	2.148	.934
Time-Retention[a]	.840	.266	2.317	1.375	3.903	.002
Distrust[a]	.304	.381	1.356	.642	2.863	.425
Anxiety[a]	.098	.366	1.103	.538	2.260	.789
Impulsivity[b]	-2.936	.917	.053	.009	.320	.001
Extraversion[c]	1.119	.357	3.061	1.520	6.162	.002
Agreeableness[c]	-1.880	.544	.153	.053	.443	.001
Conscientiousness[c]	-.313	.397	.732	.336	1.593	.431
Emotional Stability[c]	.541	.347	1.717	.870	3.388	.119
Openness to New Experiences[c]	.104	.482	1.110	.432	2.852	.829
Material Values[d]	-.852	.444	.427	.179	1.018	.055
Experiential Self-Control[e]	-1.013	.348	.363	.184	.718	.004
Reformative Self-Control[e]	-.412	.448	.663	.275	1.596	.359

Redressive Self-Control[e]	.180	.359	1.197	.592	2.421	.617
Financial Literacy	.437	.398	1.548	.709	3.378	.273

[a] Power-Prestige, Time-Retention, Distrust, and Anxiety subscales belong to the Money Attitude Scale.

[b] Overall mean score was calculated for Barratt Impulsiveness Scale (BIS-11) since most of the internal consistency of most of the subscales did not reach adequate levels.

[c] Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness to New Experiences subscales belong to the Big 5 Personality Traits.

[d] Overall mean score was calculated for Material Values Scale since the internal consistency of the original subscales did not reach adequate levels.

[e] Experiential Self-Control, Reformative Self-Control, and Redressive Self-Control subscales belong to the Self-Control Schedule.

Firstly, we checked whether the logistic regression model fitted with the data. Hosmer and Lemeshow test indicated that the model successfully fitted [$X^2(8, N=238) = 7.762, p=.466$]. The predictors significantly improved the null model [$X^2(18, N=238) = 74.540, p<.001$]. All predictors explained 38.9% (Nagelkerke R^2) of the variance in regular saving behavior and the model successfully classified 80.3% of the cases (i.e., 94.2% for regular savers and 43.1% for non-savers). Time-retention (*B*=.840, *SE*=.266, *Wald*=9.972, *p*=.002), impulsivity (*B*=-2.936, *SE*=.917, *Wald*=10.254, *p*=.001), extraversion (*B*=1.119, *SE*=.357, *Wald*=9.816, *p*=.002), agreeableness (*B*=-1.880, *SE*=.544, *Wald*=11.954, *p*=.001), and experiential self-control (*B*=-1.013, *SE*=.348, *Wald*=8.484, *p*=.004) were significant predictors of regular saving behavior. Specifically, the odds ratio indicated that for every one-unit increase on time-retention, the odds of not saving regularly increased by a factor of nearly 2.3 [Exp (B)=2.317, 95% CI (1.375, 3.903)]; every one-unit increase on impulsivity, the odds of not saving regularly increased by a factor of nearly .05 [Exp (B)=.053, 95% CI (.009, .320)]; every one-unit increase on extraversion, the odds of not saving regularly increased by a factor of nearly 3 [Exp (B)=3.061, 95% CI (1.520, 6.162)]; every one-unit increase on agreeableness, the odds of not saving regularly increased by a factor of nearly .15 [Exp (B)=.153, 95% CI (.053, .443)]; every one-unit increase on experiential self-control, the odds of not saving regularly increased by a factor of nearly .36 [Exp (B)=.363, 95% CI (.184, .718)]. Impulsive buying, compulsive buying, self-esteem, power-prestige, distrust, anxiety, conscientiousness, emotional stability, openness to new experiences, material values, reformative self-control, and redressive self-control were not significant predictors of regular saving behavior.

Conclusion

Through this research, we investigated the psychological characteristics of the individuals who regularly save. According to the results of the binomial logistic regression analysis, time-retention and extraversion negatively whereas impulsivity, agreeableness, and experiential self-control positively predicted regularly saving behavior; thus, only H_1 and H_7 were partially confirmed and the rest of the hypotheses were rejected. Besides, the hypotheses regarding time-retention, impulsivity, and agreeableness were significant in the opposite directions.

Time retention is about preparing oneself for the future, financially (Yamauchi & Templer, 1982) and regular saving behavior is a suitable option for this trait. On the other hand, regular savers in our sample have lower time retention scores. The reason behind this might be the amount of money invested overall; the total of money invested for the future might be higher among non-savers, compared to regular savers. In this respect, it is clear that establishing future financial security might be irrelevant to performing regular optimal financial behaviors. Rather, other factors such as the overall amount of

money to be invested, saving style, and intentions come into prominence in the case of financial security. Impulsive individuals engage in such suboptimal financial behaviors as pursuing an economic budget less and engaging in compulsive buying practices (Alemis & Yap, 2013; Kidwell et al., 2006); and agreeable individuals do not prefer to have liquid savings (Nyhus & Webley, 2001) but nevertheless, both impulsive and agreeable individuals were engaging in regular saving behavior more. On the other hand, results regarding extraversion and self-control were in line with the previous literature.

There might be many factors behind the unexpected results. Regular savers within our sample may not perform this action for the sake of future financial security. If an individual saves for being able to purchase goods that do not bring in return more assets or future financial security (e.g., saving to constantly buy more expensive clothes), the psychological characteristics behind this situation might be different from what has been found in previous literature. In furtherance, t-test results showed that regular savers in our sample had significantly higher impulsive and compulsive buying scores and these results may suggest that participants in our sample may have to save for spending more. On the other hand, individuals who did not save regularly also answered the reason behind this situation as they could not save because of their income. So, the issue here may not be related to the saving intention. In this respect, individuals high on impulsiveness and agreeableness might have a tendency to save regardless of the amount, for the sake of spending it on the goods which are in line with their spending tendencies.

It is important to highlight the fact that the term "saving" might not be well understood by the participants. In the context of Turkey, the term saving and investing differentiates, and frequently, individuals who invest do not consider this action as saving. Time-retention subscale is frequently associated with the actions related to financial security. There are a lot of ways to perform acts related to one's financial security such as investing. In this respect, if an individual invests on a regular basis might not consider this action as a saving behavior which shed light on the seemingly unexpected results regarding this subscale.

In this study, we provided the relationship between a broad range of psychological and financial characteristics in relation to regularly saving behavior. Although some of the findings were not parallel to the existing literature, we contributed it through different dynamics which might be related to this specific form of saving behavior. Further research should consider measuring regular saving behavior in a more detailed way, investigate saving intentions, and ask about the income with the overall wealth to deduce more precisely about saving behavior.

Research and Publication Ethics

In this study, all the rules specified in the Higher Education Institutions Scientific Research and Publication Ethics Directive were complied with. None of the actions described under the heading of Actions Contrary to Scientific Research and Publication Ethics in the Directive have been taken.

Ethics Committee Permission
MEF University Ethics Committee, 14.12.2020, E-47749665-050.01.04-893

Conflict of Interest Statement
We have no conflicts of interest to disclosure.

References

Abrantes-Braga, F. D. M., & Veludo-de-Oliveira, T. (2020). Help me, I can't afford it! Antecedents and consequence of risky indebtedness behaviour. *European Journal of Marketing, 54*(9), 2223-2244. https://doi.org/10.1108/EJM-06-2019-0455

Alemis, M. C. & Yap, K. (2013). The role of negative urgency impulsivity and financial management practices in compulsive buying. *Australian Journal of Psychology*, *65*(4), 224-231. https://doi.org/10.1111/ajpy.12025

Ariffin, M. R., Sulong, Z., & Abdullah, A. (2017). Otudents' perception towards financial literacy and saving behaviour. *World Applied Sciences Journal*, *35*(10), 2194-2201.

Asebedo, S. D., Wilmarth, M. J., Seay, M. C., Archuleta, K., Brase, G. L., & MacDonald, M. (2019). Personality and saving behavior among older adults. *Journal of Consumer Affairs*, *53*(2), 488-519. https://doi.org/10.1111/joca.12199

Ayuningtyas, M. F., & Irawan, A. (2021). The influence of financial literacy on Bandung generation Z consumers impulsive buying behavior with self-control as mediating variable. *Advanced International Journal of Business, Entrepreneurship and SMEs*, *3*(9), 155-171. https://doi.org/10.35631/AIJBES.39012

Babiarz, P., & Robb, C. A. (2013). Financial literacy and emergency saving. *Journal of Family and Economic Issues*, *35*(1), 40–50. https://doi.org/10.1007/s10834-013-9369-9

Balasubramanian, C. (2015). Predicting regular saving behavior of the poor using decision trees-An important input to financial inclusion in India. *Scholedge International Journal of Management & Development, 2*(8), 16-30.

Cyders, M. A., Smith, G. T., Spillane, N. S., Fischer, S., Annus, A. M., & Peterson, C. (2007). Integration of impulsivity and positive mood to predict risky behavior: Development and validation of a measure of positive urgency. *Psychological Assessment, 19*(1), 107–118. https://doi.org/10.1037/1040-3590.19.1.107

Donnelly, G., Iyer, R., & Howell, R. T. (2012). The Big Five personality traits, materialism values, and financial well-being of self-described money managers. *Journal of Economic Psychology*, *33*(6), 1129-1142. https://doi.org/10.1016/j.joep.2012.08.001

Duyan, V., Gülden, Ç., & Gelbal, S. (2012). Self-control scale – SCS: Reliability and validity study. *Toplum ve Sosyal Hizmet*, *23*(1), 19-30.

Faber, R. J. & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research, 19*(3), 459-469. https://doi.org/10.1086/209315

Fenton-O'Creevy, M., & Furnham, A. (2020). Money attitudes, personality and chronic impulse buying. *Applied Psychology*, *69*(4), 1557-1572. https://doi.org/10.1111/apps.12215

Fisher, P. J., & Anong, S. (2012). Relationship of saving motives to saving habits. *Journal of Financial Counseling and Planning, 23*(1), 63-79.

Flores, S. A. M. & Vieira, K. M. (2014). Propensity toward indebtedness: An analysis using behavioral factors. *Journal of Behavioral and Experimental Finance*, *3*, 1-10. https://doi.org/10.1016/j.jbef.2014.05.001

Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology, 33*(3), 590–602. https://doi.org/10.1016/j.joep.2011.11.006

Ghaffar, J. A., Khattak, M. S., Shah, T. A., & Jehangir, M. (2022). Impact of personality traits on financial planning: Empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences.* https://doi.org/10.1108/JEAS-08-2021-0147

Gilenko, E., & Chernova, A. (2021). Saving behavior and financial literacy of Russian high school students: An application of a copula-based bivariate probit-regression approach. *Children and Youth Services Review, 127*, 106122. https://doi.org/10.1016/j.childyouth.2021.106122

Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, *4*(1), 26-42. https://doi.org/10.1037/1040-3590.4.1.26

Güleç, H., Tamam, L., Güleç, M. Y., Turhan, M., Karakuş, G., Zengin, M., & Stanford, M. S. (2008). Psychometric properties of the Turkish version of the Barratt Impulsiveness Scale-11. *Bulletin of Clinical Psychopharmacology, 18*(4), 251-258.

Güler, E. & Tunahan, H. (2017). Finansal okuryazarlık: Hane halkı üzerine bir araştırma. *İşletme Bilimi Dergisi*, *5*(3), 79-104. https://doi.org/10.22139/jobs.323261

Hayhoe, C. R., Cho, S. H., DeVaney, S. A., Worthy, S. L., Kim, J., & Gorham, E. (2012). How do distrust and anxiety affect saving behavior?. *Family and Consumer Sciences Research Journal*, *41*(1), 69-85. https://doi.org/10.1111/j.1552-3934.2012.02129.x

Juen, T. T., Sabri, M. F., Rahim, H. A., Othman, M. A., & Arif, A. M. M. (2013). The influence of financial knowledge, financial practices and self-esteem on money management skills of young adults. *Malaysian Journal of Youth Studies*. *9*, 23-37.

Kamawar, D., Connolly, K., Astle-Rahim, A., Smygwaty, S., & Vendetti, C. (2019). Preschoolers' saving behavior: The role of planning and self-control. *Child Development*, *90*(4), 407-420. https://doi.org/10.1111/cdev.13037

Kidwell, B., Brinberg, D., & Turrisi, R. (2006). Determinants of money management behavior. *Journal of Applied Social Psychology*, *33*(6), 1244-1260. https://doi.org/10.1111/j.1559-1816.2003.tb01948.x

Kimiyagahlam, F., Safari, M., & Mansori, S. (2019). Influential behavioral factors on retirement planning behavior: The case of Malaysia. *Journal of Financial Counseling and Planning*, *30*(2), 244-261. https://doi.org/10.1891/1052-3073.30.2.244

Lostutter, T. W., Enkema, M., Schwebel, F., Cronce, J. M., Garberson, L. A., Ou, B., ... & Larimer, M. E. (2019). Doing it for the money: The relationship between gambling and money attitudes among college students. *Journal of Gambling Studies*, *35*(1), 143-153. https://doi.org/10.1007/s10899-018-9789-4

Nyhus, E. K. & Webley, P. (2001). The role of personality in household saving and borrowing behaviour. *European Journal of Personality*, *15*(S1), 85-103. https://doi.org/10.1002/per.422

Okutan, S., Bora, B., & Altunışık, R. (2013). Keşifsel satın alma eğilimleri ve bu eğilimlerin plansız, kompülsif ve hedonik satın alma tarzlarıyla olan ilişkisinin incelenmesi. *Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi, 8*(3), 117-136.

Özgüngör, S., & Paksu, A. D. (2017). Üniversite öğrencilerinde benlik saygısı düzeyine göre akademik başarıyı yordayan değişkenler. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, *7*(48), 111-125.

Patton, J. H., Stanford, M. S., & Barratt, E. S. (1995). Factor structure of the Barratt Impulsiveness Scale. *Journal of Clinical Psychology*, *51*(6), 768-774. https://doi.org/10.1002/1097-4679(199511)51:6<768::AID-JCLP2270510607>3.0.CO;2-1

Pangestu, S., & Karnadi, E. B. (2020). The effects of financial literacy and materialism on the savings decision of generation Z Indonesians. *Cogent Business & Management*, *7*(1), 1743618. https://doi.org/10.1080/23311975.2020.1743618

Piotrowska, M. (2019). The importance of personality characteristics and behavioral constraints for retirement saving. *Economic Analysis and Policy*, *64*, 194-220. https://doi.org/10.1016/j.eap.2019.09.001

Richins, M. L. & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, *19*(3), 303-316. https://doi.org/10.1086/209304

Rook, D. W. & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of Consumer Research*, *22*(3), 305-313. https://doi.org/10.1086/209452

Rosenbaum, M. (1980). A schedule for assessing self-control behaviors: Preliminary findings. *Behavior Therapy*, *11*(1), 109-121. https://doi.org/10.1016/S0005-7894(80)80040-2

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton University Press.

Sarpong-Kumankoma, E. (2021). Financial literacy and retirement planning in Ghana. *Review of Behavioral Finance*. https://doi.org/10.1108/RBF-05-2020-0110

Sekścińska, K., Jaworska, D., & Rudzinska-Wojciechowska, J. (2021). Self-esteem and financial risk-taking. *Personality and Individual Differences*, *172*, 110576. https://doi.org/10.1016/j.paid.2020.110576

Silvera, D. H., Lavack, A. M., & Kropp, F. (2008). Impulse buying: The role of affect, social influence, and subjective wellbeing. *Journal of Consumer Marketing*, *25*(1), 23-33. https://doi.org/10.1108/07363760810845381

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, *14*, 30-38. https://doi.org/10.1016/j.jbef.2017.04.002

Suwatno, S., Waspada, I., & Mulyani, H. (2021). Forming student's saving behaviour through financial literacy, parental financial education, and self-control. *JPAK: Jurnal Pendidikan Akuntansi dan Keuangan*, *9*(2), 127-136. https://doi.org/10.17509/jpak.v9i2.34944

Süer, Ö., Baklacı, H. F., & Kocaer, E. (2017). Impact of money attitude on career goals: A survey on undergraduate students. *Ege Academic Review, 17*(4), 527-537.

Tang, N. & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. *Journal of Economic Psychology*, *54*, 164–176. https://doi.org/10.1016/j.joep.2016.04.005

Tatar, A. (2017). Büyük Beş-50 Kişilik Testinin Türkçeye çevirisi ve Beş Faktör Kişilik Envanteri Kısa Formu ile karşılaştırılması. *Anadolu Psikiyatri Dergisi*, *18*(1), 51-61.

Trzcińska, A., Sekścińska, K., & Maison, D. (2021). The role of self-control and regulatory foci in money-saving behaviours among children. *Current Psychology*, *40*(1), 344-354. https://doi.org/10.1007/s12144-018-9944-1

World Bank. (2013, September 26). *Financial literacy diagnostic surveys 2008 and 2009 (Panel)*. https://microdata.worldbank.org/index.php/catalog/1028

Ünal, S. & Aslay, F. (2013). Materyalizmin statü tüketimini üzerindeki etkisini belirlemeye yönelik bir araştırma. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi, 27*(2), 43-62.

Van Rooij, M. C. J., Lusardi, A., & Alessie, R. J. M. (2012). Financial literacy, retirement planning and household wealth. *The Economic Journal*, *122*(560), 449-478. https://doi.org/10.1111/j.1468-0297.2012.02501.x

Wai, D. H. P. (2020). *Influencing Factors on Saving Behavior among Staff of Universities in Sagaing* (Doctoral dissertation, MERAL Portal).

Wang, J., & Xiao, J. J. (2009). Buying behavior, social support and credit card indebtedness of college students. *International Journal of Consumer Studies, 33*(1), 2–10. https://doi.org/10.1111/j.1470-6431.2008.00719.x

Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology*, *24*(6), 723-739. https://doi.org/10.1016/j.joep.2003.06.001

Widyastuti, U., Suhud, U., & Sumiati, A. (2016). The impact of financial literacy on student teachers' saving intention and saving behaviour. *Mediterranean Journal of Social Sciences, 7*(6), 41-48. https://www.doi.org/10.5901/mjss.2016.v7n6p41

Wärneryd, K. E. (1989). On the psychology of saving: An essay on economic behavior. *Journal of Economic Psychology*, *10*(4), 515-541. https://doi.org/10.1016/0167-4870(89)90041-X

Whiteside, S. P., & Lynam, D. R. (2001). The Five Factor Model and impulsivity: Using a structural model of personality to understand impulsivity. *Personality and Individual Differences, 30*(4), 669–689. https://doi.org/10.1016/S0191-8869(00)00064-7

Yamauchi, K. T. & Templer, D. J. (1982). The development of a Money Attitude Scale. *Journal of Personality Assessment*, *46*(5), 522-528. https://doi.org/10.1207/s15327752jpa4605_14

Appendix A

Results of the Correlation Analysis Among the Psychological Measures

Table 11. *Correlations of the Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Impulsive Buying Scale	-																
2. Compulsive Buying Scale	.641**	-															
3. Rosenberg Self-Esteem Scale	-.130*	-.248**	-														
4. Power-Prestige Subscale	.260**	.314**	-.179**	-													
5. Time-Retention Subscale	-.241**	-.242**	.109	.060	-												
6. Distrust Subscale	.023	.185**	-.254**	.437**	.239**	-											
7. Anxiety Subscale	.227**	.277**	-.225**	.515**	.164*	.647**	-										
8. Barratt Impulsivity Scale-11	.338**	.344**	-.438**	.393**	-.245**	.275**	.325**	-									
9. Extraversion Subscale	-.024	-.021	.436**	.057	.209**	-.042	.002	-.205**	-								
10. Agreeableness Subscale	-.057	-.052	.368**	-.144*	.140*	-.043	-.069	-.278**	.433**	-							
11. Conscientiousness Subscale	-.138*	-.182**	.452**	-.246**	.140*	-.232**	-.164*	-.642**	.209**	.240**	-						
12. Emotional Stability Subscale	-.164*	-.262**	.569**	-.155*	.038	-.223**	-.275**	-.401**	.402**	.232**	.385**	-					
13. Openness to New Experiences Subscale	-.136*	-.133*	.275**	-.030	.196**	-.027	-.018	-.301**	.387**	.354**	.256**	.184**	-				
14. Material Values Scale	.397**	.387**	-.171**	.658**	.006	.228**	.433**	.321**	.084	-.181**	-.188**	-.215**	.009	-			
15. Experiential Self-Control Subscale	-.227**	-.252**	.489**	-.309**	.018	-.389**	-.384**	-.508**	.278**	.157*	.422**	.637**	.177**	-.289**	-		
16. Reformative Self-Control Subscale	-.098	-.162*	.401**	-.166*	.305**	-.057	-.048	-.487**	.306**	.281**	.501**	.269**	.363**	-.191**	.262**	-	
17. Redressive Self-Control Subscale	-.020	-.091	.458**	-.157*	.134*	-.053	-.153*	-.300**	.245**	.335**	.373**	.355**	.274**	-.191**	.330**	.674**	-

Note. * Indicates $p < .05$. ** indicates $p < .01$