# INVESTIGATING THE FINANCIAL SAVING BEHAVIOR: A SURVEY WITH UNIVERSITY EMPLOYEES

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## **ABSTRACT**

# INVESTIGATING THE FINANCIAL SAVING BEHAVIOR: A SURVEY WITH UNIVERSITY EMPLOYEES

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Personal financial stability and independence is a goal that is objectively recognized as good, and it can be achieved by most people only by regular acts of financial saving behavior. The purpose of this thesis is to investigate the impact of demographics, personality traits, financial literacy and Covid-19 risk perception on saving behavior of Middle East Technical University (METU) employees by using the theory of planned behavior. The study aims to contribute to the literature by adding COVID-19 risk perception variable and also by using personality traits and financial literacy in relation to saving on the Turkish context. In addition to intention to save that is being used in TPB, we also investigate the saving behavior as the dependent variable. Participants were asked whether their income exceeded their spendings or not and if so, what percentage could they save from their income to measure the behavior of saving and theory of planned behavior questions were used to measure the intention of saving. Data was collected through an anonymous web survey conducted on METU survey service platform with 130 respondents. The results show that the theory of planned behavior is a good fit and financial literacy has a significant role on intention to save.

**Keywords**: saving behavior, theory of planned behavior, personality traits, financial literacy, covid-19 risk perception

# FİNANSAL BİRİKTİRME DAVRANIŞI: ÜNİVERSİTE ÇALIŞANLARIYLA BİR ANKET ÇALIŞMASI

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Kişisel finansal istikrar ve bağımsızlık nesnel olarak iyi olarak benimsenen bir hedeftir ve çoğu insan bu hedefe düzenli finansal biriktirme davranışı yoluyla ulaşabilir. Tezin amacı demografik etkenlerin, kişilik özelliklerinin, finansal okuryazarlığın ve Covid-19 risk algısının Orta Doğu Teknik Üniversitesi çalışanlarının finansal biriktirme davranışına etkisini planlı davranış teorisi ile incelemektir. Çalışmanın literatüre katkısı, Covid-19 risk algısını biriktirme bağlamına eklemesi ve Türkiye'de kişilik özellikleri ve finansal okuryazarlık değişkenlerini kullanmasıdır. Planlı davranış teorisindeki biriktirme davranışı niyetine ek olarak biriktirme davranışını da bir değişken olarak inceledik. Katılımcılara gelirlerinin harcamalarını aşıp aşmadığı ve yüzde kaçının biriktirildiğini sorularak biriktirme davranışı ölçüldü. Davranışsal finansal biriktirme niyetinin ölçümünde planlı davranış teorisi soruları kullanıldı. Veri anonim internet anketi yoluyla METU Anket platformu üzerinden 130 kişinin katılımı ile toplandı. Sonuçlar planlı davranış teorisinin uygunluğunu ve finansal okuryazarlığın biriktirme davranışına anlamlı bir etkisi olduğunu göstermektedir.

**Anahtar Kelimeler**: biriktirme davranışı, planlı davranış teorisi, kişilik özellikleri, finansal okuryazarlık, covid-19 risk algısı

To my niece İnci

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# LIST OF ABBREVIATIONS

CRP: Covid-19 Risk Perception

PBC: Perceived Behavioral Control

TPB: Theory of Planned Behavior

TRA: Theory of Reasoned Action

WHO: World Health Organization

## **CHAPTER 1**

## INTRODUCTION

Financial saving behavior is a rational behavior practiced by individuals to safeguard themselves from future expenses. The amount of money, people choose not to spend from their disposable income is considered saving behavior. It is a relevant and timely topic to study as the times are uncertain with the pandemic and the world economy becoming more unstable by the day with increasing inflation rates all over the world. The importance of savings and the act of saving grows with each passing day.

Saving behavior has been examined in the literature through the years under many theories. Theory of planned behavior has been found as one of the most consistent in predicting the financial saving behavior. The predictors used in the theory of planned behavior are attitude, subjective norm, and perceived behavioral control. The act of saving can be considered as a planned behavior that people perform, not impulsive like drinking water when you are thirsty. The nature of this behavior suggests that the theory of planned behavior is a good fit for examining saving behavior.

This study also employs theory of planned behavior and adds in new variables in hopes of better explaining financial saving behavior. The big five personality traits, financial literacy and Covid-19 risk perception variables are examined regarding saving.

The big five personality traits were each found to have a relationship with financial saving behavior in the literature with some findings being conflicted. Mowen (2000), suggests that personality traits are in the roots of consumer behavior. Saving is also related as it is the amount the consumer chooses not to consume. Therefore it is relevant for this study to examine personality traits as predictors of saving behavior.

Financial literacy is considered as a valuable predictor of good financial behavior in former studies. This study is directly related to good financial behavior in the form of financial saving so it is a relevant variable in this study as well.

Covid-19 risk perception is a variable of interest due to the times we are in. The pandemic has affected people both psychologically and economically and therefore it is deemed relevant to the financial saving behavior and investigated in this study. As the pandemic affected people both economically and psychologically, it is likely it has also affected saving behavior because saving behavior is related to both economic and psychological factors.

The thesis aims to investigate the effect of financial literacy, personality traits and Covid-19 risk perception on the financial saving behavior while checking for some demographic information as well. Saving behavior on the individual level is a relatively less explored territory in the literature. The relationship between selected variables and saving behavior will lay vital groundwork not only on the Turkish context but also in the general saving literature.

The next chapter consists of literature review about saving behavior, theory of planned behavior, big five personality traits, financial literacy and Covid-19 risk perception. The relevant studies in the literature regarding these topics were examined to guide the study.

In the chapter following the literature review conceptual model for the study and derived hypotheses are presented. The hypotheses are derived from the scholars' work on the prior saving literature.

Methodology is presented in the chapter following the conceptual model and hypotheses. Online survey method was used to collect data. The survey consisted of questions to measure the variables of the study. The survey reached to 130 respondents and the detailed information about the sample characteristics are also presented in this chapter.

After the methodology section comes the analysis and results chapter. In this chapter the collected data is analyzed with IBM SPSS v26 software. Confirmatory factor

analysis, reliability tests, correlations and stepwise linear regression results are disclosed to the reader.

Findings suggest that theory of planned behavior is a good predictor of saving behavior explaining a fair amount of the variance in the intention to save and financial literacy also plays a positive role in intention to financially save.

Conclusion chapter sums up the study and in the chapter following that, there is discussion and implications of the study.

## **CHAPTER 2**

#### LITERATURE REVIEW

# 2.1. Saving Behavior

Financial saving behavior is a rational behavior adopted by consumers to prepare for emergencies or retirement. The money people choose not to spend for consumption is considered as saving behavior. This behavior provides a financial safeguard for the future. Protecting individuals from unexpected expenses or loss of income and help them ease the ramifications.

In the literature there are many works studying this behavior. There are two approaches to explain saving. One is through the life cycle model developed by Modigliani (1966) and the other is through permanent income hypothesis developed by the Nobel winning economist Milton Friedman.(1957)

In the life cycle model, it is hypothesized that people hold consumption at a constant to be able to consume the same amount when they are not accumulating wealth in their lives anymore. In the early years of someone's life there is no wealth accumulation. As they become an adult, they start accumulating and saving some of it for when they get old to keep their life standards the same.

Permanent income hypothesis has a slightly different approach. Friedman hypothesizes that people spend their money at a level they expect to be their long-term average income. This approach suggests that a working adult would only save in a situation in which they think the current money they earn is more than the permanent income they anticipate.

The factors that affect saving behavior has been researched through the years with many determinants considered. Demographic information such as age, income, education level, marital status etc. are shown to be significant factors in saving behavior. Demographics by themselves are not enough to explain this behavior.

Through the years researchers tested many other variables to see if they play a role in saving behavior. These variables include but are not limited to personality, financial literacy, intention, subjective norm, perceived behavioral control and risk perception.

Demographic factors such as age, gender, income, marital status, education level etc. are used as independent variables on predicting saving behavior through the years. (Hayhoe, Cho & Devaney et al. 2012; Fisher, 2010; Brounen, Koedijk & Pownall, 2016)

The works examining the relationship of saving in regards to personality mainly employ the big five personality measure. Asebedo, Wilmarth, Seay et al. 2019)

Financial literacy is one of the commonly used variables when it comes to any sort of financial behavior and saving is no exception. (Scott, Nguyen Vu, Cheng et al. 2018)

The most popular theory used in saving behavior research is the Theory of Planned Behavior developed by Ajzen. (1991) People's intention to save is predicted through three constructs consisting of attitude towards the behavior, subjective norm and perceived behavioral control. The aforementioned other demographic and psychological factors affect these three constructs and in turn intention to save. (Copur & Gutter, 2019)

An initiative started by ING Bank on encouraging people to make sound financial decisions in their life prepared a heat map on research regarding financial behaviors. Saving behavior is one of these behaviors and the heat map showed the gaps in the literature

Figure 1: Research Heatmap Prepared by Think Forward Initiative

		Income	Je Je	Spending	ling	Borrowing	ving	Saving	9u	Planning	ing
- 1	Frequency/Time Scale	Short term	Long term	Short term	Long term	Short term	Long term	Short term	Longterm	Short term	Long term
	Examples	Temporary benefits, monthly monetary windfalls, wages, pensions, irregular income rents, benefits)	Regular income (e.g. monthly wages, pensions, rents, benefits)	High frequency purchases (e.g., groceries, transport, utilities & leisure)	Low frequency "big ticket" purchases (e.g., holidays, cars, weddings, homes)	Overdrafts, consumer credit, short-term loans	Mortgages and other long-term loans (e.g. cars and durables)	Savings set aside as al Pension savings, buffer, emergency investments, fund, or for short-wealth/assets term planned accumulation, expenses inheritance	Pension savings, investments, wealth/assets accumulation, inheritance	Budgeting, tracking Insurance (home or income and expenses, rental, vehicle, life short-term financial insurance, etc.), long goal setting and tracking setting and tracking.	Insurance (home or rental, vehicle, life insurance, etc), long-term financial goal setting and tracking
-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	rinfaction Industrian										
TIMIMI AISIDIAINILIS	Professional and social networks Businesses Employers Affective Les (e.g. partners, family) Communication and framing Advice and coaching Social and cultural factors Technology										
Interior in the Company of Company	Demographics Socio-economic status Employment (status) Financial literacy and capabilities Mental and physical health Personality and identity Economic preferences Attitudes, perceptions, beliefs and										
-: -: m: -:	Values and norms Emotions Habits and experience									- AMINIA	

# 2.2. Theory of Planned Behavior

The theory of planned behavior, in short TPB, is one of the commonly used theories of the imminent determinants of behavior. It has been used to predict many types of behavior including saving behavior. This widely applied theory originally published by Ajzen (1991) has received over a hundred thousand citations on Google Scholar by 2022. TPB is part of an evolving set of theories consisting of the earlier theory of reasoned action (TRA) (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) and the subsequent Reasoned Action Approach (RAA). (Fishbein & Ajzen, 2010) All of these theories process information to predict the formation of intentions.

All three theories indicate that the most important proximal factor of performing a behavior is the individual's behavioral intention to do it. The TPB has three predictors of intentions: attitude, subjective norm, and perceived behavioral control. Attitude and subjective norm are inherited from the earlier TRA. Perceived behavioral control is added to the predictors in the TPB.

External Variables Demographic variables Behavioral Beliefs (e.g., age, sex, occupation, socioeconomic status. religion, education) Personality traits (e.g., extraversion, Normative Beliefs Subjective Norm Intention Behavior agreeableness, conscientiousness, neuroticism, openness) Environmental influences Control Beliefs Perceived Behavior Control (e.g., access, physical environment)

Figure 2: Theory of Planned Behavior

Source: Tenenbaum, G., & Eklund, R. C. (2020). Theory of Planned Behavior. In *Handbook of Sport Psychology* (p. 4). essay, Wiley.

Attitudes are across the board appraisements of the behavior by the person. Attitude is defined by Fishbein and Ajzen (1975) as "a learned disposition to respond in a consistently favorable or unfavorable manner with respect to a given object." Attitudes are usually measured by using semantic differentials such as good/bad, boring/interesting, detrimental/beneficial, e.g.)

Subjective norms are formed by an individual's beliefs regarding significant others' approval for the individual's performing of the behavior. These norms assess the social pressure on the person with reference to whether they feel free or not to perform the behavior in question. This predictor is usually measured by assessing the approval of important people for the behavior. (Ajzen 2002a; Conner & Sparks, 2015)

The third predictor incorporated by TPB is perceived behavioral control (PBC). This is the individual's perception on to what extent they are in control of performing the behavior. There are two ends in the continuum with easily performable behaviors on one end (e.g., going on a walk) and behaviors that require resources, opportunities, and skills (e.g., becoming an olympic athlete). PBC is usually measured with items assessing the confidence level the person can perform the behavior and whether it is up to them to be able to do it. The theory also suggests that perceived behavioral control more directly influences the behavior. (Ajzen 2002a; Conner & Sparks, 2015)

All three constructs are functions of different types of beliefs. Attitude is a function of major behavioral beliefs. Represents the perceived probability of acting on the behavior will result in a certain outcome, or it is associated with an attribute.

Subjective norm is a function of normative beliefs. These normative beliefs represent how the individual perceives what their significant others think about performing the behavior. These referents, significant others, consists of people whose opinions and approval the individual values.

Perceived behavioral control is a function of control beliefs. These beliefs are regarding whether the individual has access to needed opportunities and resources to perform the behavior. These beliefs are reliant on both internal (information, physical capability, skills, e.g.) and external (opportunities, dependence on others, environmental factors, e.g.)

# 2.2.1. Theory of Planned Behavior and Saving Behavior

The importance of the three predictors mentioned are subject to vary across populations, context, and behavior. In the context of saving there are a considerable amount of work using TPB. East, (1993) used TPB for predicting investment decisions and found that behavior was accurately predicted by intention and intention was

accurately predicted by attitude, subjective norm and PBC. TPB has been used to predict saving behavior later on in the literature with other predictors used as independent variables such as demographic factors, psychological factors, economic factors etc.

Shim, Serido and Tang used the TPB on a study regarding future-oriented financial behaviors (saving) on young adults' well-being. Future orientation is the prioritization of future comfort over experiencing a pleasure in the short term. Saving behavior is a future-oriented financial behavior as it prepares the individual for future expenses. They found the theory works in the context of saving and their findings indicate attitude and subjective norm has a positive relationship with intention to perform future-oriented financial behavior. (2012)

The role and relevance of domain knowledge in regard to savings intentions is also investigated in a study by Croy, Gerrans, and Spellman. (2009) The domain knowledge investigated in this study is financial literacy as the domain researched is saving intentions and it is a financial behavior. This study also uses theory of planned behavior and adds financial literacy as a variable and finds that it is a statistically relevant predictor in understanding financial saving behaviors of individuals. Domain knowledge, financial literacy, has an effect on perceived behavioral control as the knowledge renders the individual more capable of performing the behavior.

# 2.3. Personality Traits

Early researchers of personality focused on the similarities among people but lately they started focusing on the differences in individuals instead. (McAdams, 1992) One of these approaches is the Five Factor Model of Personality. Individuals' cognitive, behavioral and emotional patterns are predicted by their differences and these variations are named traits. (Costa & Widiger, 2005) The five personality traits are listed as: conscientiousness, neuroticism, openness to experience, agreeableness, and extroversion. Each trait has facets associated with them.

Neuroticism is associated with anxiety, depression, impulsiveness, vulnerability, angry hostility, and self-consciousness. Facets associated with extraversion domain are companionability, affection, activity, thrill seeking, positive emotions and

assertiveness. Openness is associated with fantasy, feelings, aesthetics, values, ideas and actions. Altruism, trust, straightforwardness, compliance, modesty and tender mindedness are the facets associated with agreeableness. Lastly, conscientiousness is associated with order, dutifulness, competence, achievement striving, deliberation and self-discipline. (Matthews, Deary & Whiteman, 2003)

Each of the five personality traits are assumed to be associated with financial saving behavior.

# 2.3.1. Openness to Experience and Saving Behavior

Openness is related to the intention of engaging in long-term saving and investing behavior for university students (Mayfield, Perdue, & Wooten 2008). Although contradicting results have been gathered, in general greater openness is associated with inferior money management skills (Troisi, Christopher, & Marek 2006).

# 2.3.2. Conscientiousness and Saving Behavior

The conscientiousness trait is found to have a positive relationship with saving behavior and planning for retirement and old age. (Hershey & Mowen 2000), Conscientiousness was also linked with greater accumulated income and net worth. (Letkiewicz and Fox 2014; Nabeshima & Seay 2015). Individuals who were less conscientious exhibited compulsive buying behavior (Mowen & Spears 1999).

## 2.3.3. Extroversion and Saving Behavior

Extroverted people reported higher net worth amounts (Nabeshima & Seay 2015), implying that the extroversion trait promotes accumulation of wealth on individuals.

# 2.3.4. Agreeableness and Saving Behavior

In the financial behavior domain agreeableness has usually negative connotations. Elderly adults in the USA with high scores of agreeableness demosntrated lower net worth than their counterparts (Nabeshima and Seay 2015), and agreeableness trait was link to an increased amount of compulsive buying behavior (Mowen and Spears 1999).

# 2.3.5. Neuroticism and Saving Behavior

Neuroticism on people show a lasting inclination of expressing bad feelings such as anger, disgust, embarrassment, fear, guilt, and sadness (Costa Jr. and McCrae 1992). The thought of getting old and retiring being on the horizon could stimulate feelings of anxiety, stress, and fear—especially on individuals who are not financially ready for retirement. Individuals with stable temperaments (the opposite of neuroticism) are found to be indulging in compulsive behavior less than their neurotic counterparts (Mowen and Spears 1999). These findings indicate that neurotic people have a tendency on performing bad financial behaviors that can prevent them from saving.

# 2.4. Financial Literacy

In its essence literacy is defined as an individual's ability of writing and reading. (Zarcadoolas, Pleasant, and Greer 2006) Literacy consists of two dimensions; the first is understanding, (i.e., knowing the meaning of words and mathematical statements) the second is using forms of documents.

The usage of forms of documents requires being capable in writing in the context of the literacy whether being general or specific like mathematical or financial. For example, being able to read and write mathematical formulas are considered a sign of mathematical literacy.

According to Mandell financial literacy is the ability of making short- and long-term financial decisions of people in their own best interest. (Mandell, 2008) It is the level of competency concerning financial matters. Literature on the topic demonstrates the importance of financial education on personal financial behaviors and the positive affect it provides. People who have studied business or economics related topics are less likely to be bankrupt then their counterparts. (Bernheim, Garrett & Maki, 2001; Grimes, Rogers & Smith, 2010)

Financial literacy, just like general literacy, can also be considered as consisting of two dimensions as well. Huston (2009) conceptualized these dimensions as knowledge of personal finance and application of personal finance. Atkinson and Messy (2011) defines financial literacy through the financial education field as "a combination of

awareness, knowledge, skills, attitude and behaviors necessary to make sound financial decisions and ultimately achieve individual financial well-being"

# 2.4.1. Financial Literacy Measurements

Many methods have been employed to measure financial literacy through the years. Moore (2003) used a twelve-item scale with financial management questions in regard to topics such as credit, savings, investment, mortgages etc. Later, a financial literacy index consisting of five items and an eleven-item progressive financial literacy index have been constructed by Van Rooij, Lusardi and Alessie. (2007) Also in 2007 A three-item measurement scale for financial literacy was developed. (Lusardi & Mitchell) These three basic questions are about inflation, compounding of interest rates and diversification of risk.

# 2.4.2. Financial Literacy and Financial Behaviors

Financial literacy measures have been employed in the literature in relation to financial behaviors. (Scott et al., 2018) In 2015 (Asaad), a study was conducted on the effect of financial confidence and financial literacy. Self-esteem and financial literacy are found to have a positive impact on good financial behavior. (Tang & Baker, 2016) Chatterjee, (2017) examines the association between financial literacy and risk tolerance and goal-based savings. Kadoya & Khan, (2018) investigated the relationship between anxiety about old age and financial literacy and found that financial literacy can improve preparedness for old age by rendering individuals more capable of accumulating assets and generating more savings.

## 2.5. Covid-19 Risk Perception

The COVID-19 virus has become an unexpected part of our lives in 2019. It has spread substantially all over the globe and changed life as we know it. According to World Health Organization (WHO), as of May 2022 there has been more than 520 million cases of Covid-19 reported worldwide and the world has lost more than 6 million people. Although we are nearing the end of the pandemic as people are vaccinated and the symptoms are becoming less severe. The ramifications of the situation are still being felt by every individual whether it being psychological or economical.

A meta study on the mental health consequences of the pandemic reveals that the pandemic increased the post traumatic stress symptoms and depressions cases examined. People who already had psychiatric disorders reported the worsening of their symptoms. Studies on the general public revealed higher levels of depression and anxiety and lower psychological well-being in general compared to the times before the pandemic. (Vindegaard & Benros, 2020)

The pandemic also had a substantial impact on the world economy. Isolation, social distancing and restrictions on travel meant the dwindling of the labor force across the world in regard to almost all sectors. People lost their jobs due to the pandemic. Almost all education institutions shut down face to face education and moved to online which lead to a decrease in commodities and manufactured products. On the contrary, the need for medical supplies such as masks has significantly increased. Food sectors have seen an increase in demand as people started panic buying and stockpiling. In general the pandemic had a negative impact in the world economy. (Nicola, Alsafi, Sohrabi, et al. 2020)

The spread and the risk of death on infection created psychological burdens on people as well. (Xiao, 2020) Contracting the virus and falling ill could lead to experiencing severe symptoms on the long run as well as death. The seriousness of the situation lead people to fear the consequences and increased perceived risk.

Perceived risk refers to people's psychological assessments of the possibility and consequences of an adverse outcome. (Sjöberg, 2000) If an individual has reason to think a bad event could very likely happen to them, they would have high perceived risk and behave accordingly and lead them to change their behavioral patterns to avoid the situation or face it with a level of preparation. Saving could play a role in preparing for the adverse outcome perceived regarding Covid-19 as it could cover hospital costs if the virus is contracted or living cost if they lose their jobs etc.

Yıldırım & Güler developed the risk perception scale for Covid-19. (2020) The measure has a two-factor structure measuring cognitive and emotional dimension of the Covid-19 risk perception. Tested with both exploratory and confirmatory factor analyses. Women have reported higher emotional risk than men. Findings suggested that the Covid-19 risk scale is a psychometrically sound scale for assessment.

## **CHAPTER 3**

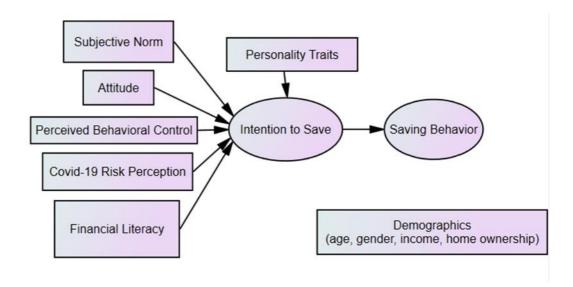
#### CONCEPTUAL MODEL AND HYPOTHESES

# 3.1. Conceptual Model

This study aims to investigate the factors that affect financial saving behavior of university employees by using the theory of planned behavior and adding in other relevant variables such as personality traits, financial literacy and Covid-19 risk perception. Personality traits and financial literacy in relation to financial saving behavior have been investigated on different contexts in previous literature. We add in the Covid-19 Risk Perception as it is a prevalent factor in the situation the world is facing.

All three theory of planned behavior intention predictors (attitude, subjective norm and perceived behavioral control) are employed in our model as independent variables and intention to save is the dependent variable. Financial literacy, Covid-19 risk perception (cognitive and emotional dimensions), the big five personality traits (extroversion, conscientiousness, neuroticism, agreeableness and openness to experience) and financial literacy are added into the model as independent variables for predicting the intention to financially save. In turn intention to financially save should predict saving behavior.

Figure 3: The Conceptual Model



# 3.2. Hypotheses

The first two hypotheses are derived in line with the theory of planned behavior. The three constructs (perceived behavioral control, attitude, and subjective norms) should affect the intention to save positively and in turn intention to save should translate into the financial saving behavior in the individuals.

H1: The act of financial saving is positively affected by the behavioral intention of financial saving.

H2: The behavioral intention of financial saving is positively affected by:

- H2A. High perceived control of performing financial saving behavior
- H2B. Positive attitude regarding financial saving behavior
- H2C. Subjective norms in support of financial saving behavior.

Personality traits and their relations regarding saving behavior have been investigated by a few different researchers on different contexts. The relationship each personality trait has on saving has been explained on the previous chapter. The measured intensity of the personality traits should have an impact on saving behavior according to the literature. We arrive at our hypotheses by synthesizing previous literature on these relationships.

H3: Intensity of personality traits affect the behavioral intention to save.

H3A. Conscientiousness has a positive effect on the behavioral intention of financial saving.

H3B. Extroversion has a positive effect on the behavioral intention of financial saving.

H3C. Neuroticism has a negative effect on the behavioral intention of saving.

H3D. Openness to experience has a negative effect on the behavioral intention of saving.

H3E. Agreeableness has a negative effect on the behavioral intention of saving.

Financial literacy and saving behavior relationship have also been studied in the literature. Findings suggest that financial literacy is a significant predictor for exhibiting good financial behavior. Saving behavior is deemed as a good financial behavior and financial literacy has been found to be a good predictor on saving as well. Therefore we hypothesize that financial literacy plays a positive role in saving behavior.

H4: Financial literacy has a positive impact on the behavioral intention of saving.

Although Covid-19 risk perception and financial saving behavior relationship has not been investigated directly, the aftermath of disaster' effect on saving behavior has been studied and it shows that people tend to live like there is no tomorrow when disaster hits and save less. In a study conducted in China after an earthquake people were found to save less. (Filipski, Jin, & Zhang, et al., 2019) Therefore we hypothesize that higher Covid-19 risk perception will negatively affect the behavioral intention of saving.

H5: Covid-19 risk perception has a negative impact on the behavioral intention of saving.

## **CHAPTER 4**

## METHODOLOGY AND DATA

# 4.1. Survey Design

The survey was created on METU Survey. It consists of seven parts of questions. In the first group, participants give consent to take the survey voluntarily. In the second part, some demographic and financial saving information questions were asked. The third group of questions are the likert scale type big five personality traits semantic differentials. In the fourth group questions measuring the theory of planned behavior constructs were asked. The fifth group of questions had questions regarding Covid-19 Risk Perception and if Covid-19 affected their saving behavior. In the sixth group there were questions to measure financial literacy. The last group asked the participants if they would like to participate in an interview for further research. The survey language was Turkish, and the complete list of questions are provided at the Appendix. More information on the questions and scales used is given in this chapter.

# 4.1.1. Dependent Variables

# 4.1.1.1. Financial Saving Behavior

Financial saving behavior is measured in two ways in the survey. The first is a binary variable indicating whether the individual saves or not. The participant is asked to define whether their spendings exceeded their income or less than their income. The second is the percentage of their income the individual saves. If they answered their spendings were less than their income participants were asked what percentage of their income, they could save. (Copur & Gutter, 2019) This percentage is referred as saving rate in the literature. (Filipski, Jin, Zhang, et al. 2019)

## 4.1.1.2. Intention to Save

Intention is a construct of the theory of planned behavior. Two five point likert scale type questions are used to measure intention to save. The questions were taken from a prior Turkish survey that used the theory of planned behavior. (Copur & Gutter, 2019)

- In the upcoming year, at least once in every three months, I intend to make a deposit on a savings or investment account. (1 = Improbable, 5 = Exceedingly Possible)
- 2. In the upcoming year, at least once in every three months, I will try to make a deposit on a savings or investment account. (1 = Completely False, 5 = Completely True)

The overall score for intention is calculated by taking the mean of answers to both questions. The closer it is to 5 the more the person intends to save, if it is closer to 1 it means the individual is less inclined to save.

# 4.1.2. Independent Variables

The independent variables of the study are, theory of planned behavior constructs (attitude, subjective norm, perceived behavioral control), the big five personality traits, financial literacy and Covid-19 Risk Perception.

# 4.1.2.1. Theory of Planned Behavior Variables

# 4.1.2.1.1. Attitude

Attitude measures the general assessment of the individual regarding a certain, in this case saving, behavior. Three semantic differential type questions were used in the survey to measure attitude towards financial saving behavior. The questions were taken from a prior Turkish survey that used the theory of planned behavior. (Copur & Gutter, 2019)

To me making a deposit on a savings or investment account in the upcoming year, at least once every three months is...

- 1. (1 = Detrimental, 5 = Beneficial)
- 2. (1 = Boring, 5 = Pleasurable)

3. 
$$(1 = Bad, 5 = Good)$$

The mean of the three items constructs the attitude score. The higher it is, the more positive of an attitude the respondent has on saving behavior.

# **4.1.2.1.2. Subjective Norm**

Subjective norm relates to the perception of the individual whether important people in their life would approve of performing the behavior. It is measured with two items in the survey. Questions are taken from the same survey as the other TPB constructs' questions. (Copur & Gutter, 2019)

- 1. Most of the people that are important to me think that I should make a deposit on a savings or an investment account in the upcoming year at least once in every three months. (1 = I Should Not, 5 = I should)
- 2. The people whose opinions I value would approve/disapprove of me making a deposit on a savings or an investment account in the upcoming year at least once in every three months. (1 = Disapprove, 5 = Approve)

The mean of the two questions constructs the subjective norm score. The maximum score is 5 and the minimum is 1. Higher scores mean the individual thinks the behavior would be approved and appropriate for them to perform.

#### 4.1.2.1.3. Perceived Behavioral Control

This construct measures whether the individual sees themselves as capable of performing the behavior or not. It is measured with two items in the questionnaire. (Copur & Gutter, 2019)

- For me, making a deposit on a savings or an investment account in the upcoming year at least once in every three months is.... (1 = Impossible, 5 = Possible)
- 2. Making a deposit on a savings or an investment account in the upcoming year at least once in every three months mostly depends on me. (1= Completely Disagree, 5 = Completely Agree.)

The mean of the two questions is taken to measure the perceived behavioral control score of the individual. Higher scores indicate that the individual feels confident they can perform the behavior if they want to do so.

# 4.1.2.2. Personality Traits

Costa & Widiger's (2005) Five Factor Model of Personality is employed to measure personality traits. Gencoz & Oncul, (2012) developed an inventory for use in the Turkish sample. This inventory is used in this study with 5-point likert scales. The inventory consists of 38 semantic differentials. There are 8 items for extraversion, 8 items for conscientiousness, 8 items for agreeableness, 9 items for neuroticism and 5 items for openness to experience in the inventory. The mean scores for each five factor respectively equal to that trait's score.

# 4.1.2.3. Financial Literacy

Lusardi and Mitchell (2007) developed a three-item measurement scale for financial literacy. The translated versions of these questions were used in a Turkish survey. (Copur & Gutter, 2019) This study also uses these translated questions.

Interest rate question: Suppose you have \$100 in a savings account and the interest rate is 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? The multiple choice options were: (1) More than \$102, (2) Exactly \$102, and (3) Less than \$102, (4) No answer.

Inflation question: Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After 1 year, how much would you be able to buy with the money in this account? The respondents had to select from the following options: (1) More than today, (2) Exactly the same, Less than today and (4) No answer.

Risk diversification question: Buying a single company's stock usually provides a safer return than a stock mutual fund. The respondents had to choose between: (1) True, (2) False and (3) No answer.

The three questions are about inflation, compounding of interest rates and diversification of risk. Each question has one correct and two false options to choose from. Correct answers award one point and the false answers are worth zero points. Sum of the answers to the three questions equal to the financial literacy score of the respondent with 3 being the maximum and 0 minimum.

### 4.1.2.4. Covid-19 Risk Perception

After the pandemic hit, researchers in many fields started developing scales on the impact of Covid-19. One of these scales is the Covid-19 Perceived Risk Perception scale developed by Yıldırım & Güler. (2020) This scale measures the perceived risk in two dimensions. The first four questions measure the cognitive side while the last four questions measure the emotional side.

- 1. Perceived likelihood of acquiring COVID-19
- 2. Perceived likelihood of acquiring COVID-19 compared to other persons
- 3. Perceived likelihood of other diseases (e.g. diabetes/asthma)
- 4. Perceived likelihood of dying from COVID-19
- 5. Worry about oneself contracting COVID-19
- 6. Worry about a family member contracting COVID-19
- 7. Worry about COVID-19 occurring in the region
- 8. Worry about COVID-19 emerging as a health issue

All eight questions use 5-point likert scales. The mean of the first four questions is the cognitive Covid-19 risk perception score while the last four questions' mean is the emotional Covid-19 risk perception score.

### 4.2. Ethical Approval and Consent

Before the data collection begun a copy of the survey had been sent to METU Human Subjects Ethics Committee for approval and after their approval the survey had been conducted. Participation in the survey was completely voluntary and informed consents were collected from the participants before they begin the survey. Participants were also informed that their answers would be anonymous and used in research. The approval document, is included in the Appendix.

### 4.3. Pilot Study

In prior to data collection on the target sample a pilot survey was conducted with some acquaintances. The sample size of this pilot study 27. The aim was to see if the questions in the survey were clear. Questions were mostly found to be understandable; some questions were slightly altered to be clearer.

### 4.4. Sampling

The data for the thesis was collected through an anonymous online survey. The collection method had to be online due to the pandemic. Convenience sampling was used with the structured questionnaire. The survey was conducted on METU Survey. METU employees were e-mailed through their work e-mail addresses provided in their respective departments' websites. In the e-mail, the aim of the study, information on how much time it would take and the survey link were provided. The data collection time period was between February 28, 2022 and April 12, 2022.

## 4.5. Data Description

Out of the 1572 people reached out for the survey study only 130 people responded to the survey. The response rate is calculated to be the quite low score of 8.3%. Out of the 130 respondents 82 were women making up the 63.1% percent of the sample and the other 36.9% were 48 men. Non-binary and other gender groups were not represented in the sample even though the survey was inclusive. The mean of the age question is 38.29 with a standard deviation of 10.34. Oldest respondent was 67 while the youngest was 21.58.5% of the population does not have kids the others have either one or two children.

40.6% of the sample indicated that their monthly income is between the 10,001-12,000 TL range as expected cause the employees are civil servants and the incomes do not vary that much but other income groups were also represented in the sample, each of the options in the question has been selected at least once. 47.7% of the sample does not own any real estate.

The mean for the financial literacy score was two. 60.8% percent of the respondents got 2 out of the 3 questions right in the financial literacy scale. 22.3% got all 3 questions right. Out of the 44 people in the sample who regularly save 39 of them scored 2 or higher in the financial literacy scale.

The answers to the question regarding the effect of Covid-19 on savings was distributed to the three categories. 18.9% answered that their savings were affected negatively. 40.9% said it did not have an impact on their savings and the remaining 40.2% said they saved more.

### **CHAPTER 5**

#### **RESULTS**

After the data collection IBM SPSS v26 software was used to conduct the statistical analyses with the data. Descriptive statistics were calculated first for the variables in the survey to understand the sample. Confirmatory factor analyses were employed to see if the dimensions in personality traits and Covid-19 risk perception constructs' questions were loading into correct dimensions. Reliability was assessed through the Cronbach's alpha method for each scale to ensure internal consistency of the items. Inter-variable correlations were calculated to see the relationship between the variables. At last stepwise linear regression method was employed to calculate the impact of the independent variables on the dependent variable of intention to save.

# 5.1. Confirmatory Factor Analysis

Confirmatory factor analyses were run on personality traits and Covid-19 risk perception items. Theory of planned behavior items could not be included in the factor analysis as behavioral intention to save, perceived behavioral control and subjective norm constructs are measured with two items and at least three items for each dimension are necessary to run confirmatory factor analysis. (Distefano & Hess, 2005)

### 5.1.1. Factor Analysis of the Big Five Personality Traits

Confirmatory factor analysis was run on the big five personality traits items.

Cutting value was set to five and the Varimax with Kaiser normalization method was used. Rotation converged in seven iterations. KMO Measure of Sampling Accuracy value is 0,812 significant at p<.001 which means the sample is fit for factor analysis. There were no significant cross loadings in the analysis, so no item was deleted from the data.

The confirmatory factor analysis on the personality traits all shows significant loadings over 0.5 with respect to the sample size of 119. (Hair, Black, Babin and Anderson,

2010, pg. 601) Factor loadings and communalities are provided for each trait in the following tables.

**Table 1: Factor Loadings and Communalities for Extroversion Scale with 8 Items** 

Construct/Item	Factor Loading	Communality
Extroversion		
Timid (Reverse)	0.767	0.691
Withdrawn (Reverse)	0.816	0.738
Shy (Reverse)	0.729	0.626
Talkative	-0.664	0.589
Lethargic (Reverse)	0.841	0.717
Enterprising	-0.516	0.592
Cold (Reverse)	0.539	0.619
Passive (Reverse)	0.537	0.465

Factor loadings on the extroversion scale consisting of 8 items range from 0.516 to 0.841. All factor loadings are above 0.5 and therefore significant for the sample size.

**Table 2: Factor Loadings and Communalities for Conscientiousness Scale with 8 Items** 

Construct/Item	Factor Loading	Communality
Conscientiousness		
Self-disciplined	0.799	0.693
Tidy	0.767	0.647
Hard-working	0.634	0.650
Prudent	0.575	0.474
Fussy	0.771	0.609
Determined	0.609	0.586
Irresponsible		
(Reverse)	-0.524	0.540
Lazy (Reverse)	-0.605	0.538

Factor loadings on the eight-item conscientiousness scale range between the values of 0.524 and 0.771. All factor loadings are above 0.5 and therefore significant for the sample size.

Table 3: Factor Loadings and Communalities for Agreeableness Scale with 8 Items

Construct/Item	<b>Factor Loading</b>	Communality
Agreeableness		
Sincere	0.693	0.619
Compassionate	0.636	0.548
Genial	0.667	0.634
Well intentioned	0.678	0.593
Philantropic	0.708	0.601
Tolerant	0.586	0.494
Sharer	0.678	0.527
Sensitive	0.641	0.432

The eight-item agreeableness scale had factor loading values ranging from 0.586 to 0.708. The factor loadings are above 0.5 and significant for the sample size.

Table 4: Factor Loadings and Communalities for Neuroticism Scale with 9 Items

Construct/Item	Factor Loading	Communality
Neuroticism		
Nervous	0.811	0.683
Aggresive	0.808	0.693
Angry	0.749	0.654
Temperemental	0.624	0.553
Impatient	0.659	0.472
Capricious	0.518	0.406
Impetuous	0.576	0.460
Touchy	0.570	0.466
Worried	0.568	0.575

The nine items used for the neuroticism construct had factor loadings ranging from 0.518 to 0.811. These values are all above 0.5 and significant for the sample size of the study.

**Table 5: Factor Loadings and Communalities for Varimax Rotated Openness to Experience Scale with 5 Items** 

Construct/Item	Factor Loading	Communality
<b>Openness to Experience</b>	<b>;</b>	
Self-confident	0.574	0.589
Self-assured	0.708	0.733
Brave	0.671	0.465
Creative	0.627	0.420
Capable	0.621	0.485

Factor loadings on the five-item openness to experience construct ranges from 0.574 to 0.708. The items are significantly loading to the factor as all values are above 0.5.

# 5.1.2. Factor Analysis of Covid-19 Risk Perception Measure

Confirmatory factor analysis was used for the Covid-19 risk perception items on the survey.

Cutting value was set to two for the cognitive and emotional dimensions and the Oblimin direct rotation method was used with Kaiser normalization as the items were expected to be correlated. KMO Measure of Sampling Accuracy value is 0,760 significant at p<.001 which means the sample is fit for factor analysis.

There were no significant cross loadings in the analysis, so no item was deleted from the data.

The confirmatory factor analysis on Covid-19 risk perception items all show significant loadings over 0.5 with respect to the sample size of 119. (Hair, Black, Babin and Anderson, 2010, pg. 601) Factor loadings and communalities are disclosed in the following table.

Table 6: Factor Loadings and Communalities for Covid-19 Risk Perception Scale with 8 Items

Construct/Item	Factor Loading	Communality
Cognitive Covid-19 Risk Perception		
Perceived likelihood of acquiring COVID-19	0.811	0.681
Perceived likelihood of acquiring COVID-19		
compared to other persons	0.876	0.742
Perceived likelihood of other diseases (e.g.		
diabetes/asthma)	0.604	0.368
Perceived likelihood of dying from COVID-19	0.481	0.491
<b>Emotional Covid-19 Risk Perception</b>		
Worry about oneself contracting COVID-19	0.851	0.715
Worry about a family member contracting COVID-		
19	0.825	0.682
Worry about COVID-19 occurring in the region	0.903	0.806
Worry about COVID-19 emerging as a health issue	0.873	0.754

Factor loadings on the cognitive Covid-19 risk perception items range between 0.481 and 0.876. These are acceptable values for analysis considering the sample size and running the analysis with only two dimensions. Emotional Covid-19 risk perception items have factor loading scores ranging between 0.825 and 0.903. These are acceptable values as well.

### **5.2.** Reliability Analyses of the Scales

Cronbach's alpha coefficient has been deployed to test the reliability of the scales used in the study. The SPSS output for the reliability analyses can be found in the Appendix.

# **5.2.1.** Theory of Planned Behavior Scales

For the constructs used for theory of planned behavior the Cronbach alpha scores are as follows; 0.854 for intention to save, 0.815 for attitude, 0.765 for perceived behavioral control and 0,647 for subjective norm. Each of the constructs were found to be indicating a sufficient degree of internal consistency. Slightly lower score on the

subjective norm can be explained with the recentness of the construct and it is still an acceptable value.

# 5.2.2. Big Five Personality Traits Scales

Items for each of the five scales were tested respectively for internal consistency with Cronbach's alpha. The alpha coefficients were 0.879 for extroversion, 0.846 for neuroticism, 0.765 for openness to experience, 0.856 for agreeableness and 0.864 for conscientiousness. All subscales indicate internal consistency.

## 5.2.3. Covid-19 Risk Perception Scales

The questions measuring cognitive and emotional dimensions of Covid-19 risk perception were analyzed with Cronbach's alpha. Cognitive subscale had the alpha coefficient of 0.694 and the emotional subscale scored 0.888 proving the subscales are internally consistent.

#### 5.3. Correlations

Overview of the bivariate correlations between dependent and independent variables are presented in this section. The correlation matrix used to understand the relationship between the variables. Statistically significant correlations are flagged in the correlation matrix. The whole correlation matrix including the 2-tailed significance value and sample size is provided in the appendix. Standardized versions of the variables were used to calculate the correlations.

**Table 7: Correlations Across the Variables** 

Variables		2	3	4	5	9	7	8	6	10	11	12	13 1
1. Saving Behavior	!												
2. Percentage Saving ,899**	**668,	1											
3.Intention	**06£,	,342**	:										
4.PBC	,403**	,381**	,681**	!									
5.Subjective Norm ,219*		,179*	,575**	,372**	!								
6.Attitude	*190*	0.172	0.172 ,615**	,382** ,636**	,636**	;							
7. Financial Literacy	0.12	0.17	0.131		0.038 -0.104	0.027	:						
8. Extroversion	0.095	0.039	0.031	0.058	-0.068	-0.003	0.031	!					
9. Conscientiousness	-0.005	-0.028	0.089		0.16 0.039	0.064	0.082 ,224*	,224*	!				
10. Agreeableness	0.074	-0.013	0.08		0.119 ,253**	0.055		-0.077 ,295**	,474**	!			
11.Neuroticism	-0.101	-0.138		-0.089 -,235**	0.042	0.032		-0.116 -,231**	-0.14	-0.14 -,190*	:		
12.Openness	0.128	0.055	0.042	0.136	0.004	-0.097	0.035	0.035 ,389**	,462** ,380**	,380**	-0.078		
13. Cognitive CRP	-0.073	-0.129		-0.073 -,184*	-0.095	-0.058	0.022	0.022 -0.157		-0.046 -0.058	0.00	-0.058	
14. Emotional CRP	0.038	-0.022	0.138	0.061   185 *	,185*	0.074	-0.032	-0.032 -,237**	0.099	0.099 -0.053 ,263**	,263**	-0.096 ,241**	**
**. Correlation is significant at the 0.01 level (2-tailed).	nificant at ti	he 0.01 lev	vel (2-tailed	(1)									
*. Correlation is significant at the 0.05 level (2-tailed). PBC = Perceived Behavioral Control, CRP = Covid-19 Risk Perception	ficant at the	e 0.05 leve	(2-tailed)	. PBC = P	erceived Be	shavioral Co	ontrol, CR	P = Covid	1-19 Risk I	Perception			

### **5.3.1. Saving Behavior**

Saving behavior and percentage of income saved are strongly positively correlated. (r=0.899, p-value<0.001) This is expected as people who perform financial saving behavior has higher percentage of income allocated into savings. Both variables are positively significantly correlated with intention to save. (p-value<0.001) This indicates that the intention to save turns into behavior. Perceived behavioral control has slightly higher significant (p<0.001) correlation values with saving behavior variables. The theory suggests that sometimes PBC can predict the behavior better than intention, so this correlation is in line with the literature.

#### **5.3.2.** Intention to Save

Intention to save is positively correlated with all three of the TPB constructs significantly(p<0.001). Subjective norm has a Pearson correlation score of 0.575 with intention. Attitude has 0.615 Pearson correlation score with intention to save and lastly perceived behavioral control has 0.681 Pearson correlation score with intention. This shows that the theory of planned behavior is a good fit in regard to investigating saving behavior.

### **5.3.3. Financial Literacy**

Financial literacy is not found to be correlated with any of the variables in this study, but it was found to be almost significantly correlated to saving behavior. (r=0.120, p=0.057)

### **5.3.4. Personality Traits**

None of the personality traits were found to be significantly correlated with any of the dependent variables. Some statistically significant correlation was found with other independent variables.

According to the data neuroticism is negatively correlated with perceived behavioral control. (r=-0.235, p=0.007) Neurotic people could find it hard to perceive themselves as capable of performing financial saving behavior. Neuroticism was also found to be

negatively correlated with extroversion (r=-0.231, p=0.008) and agreeableness (r=-0.190, p=0.030)

Agreeableness was found to be positively correlated with subjective norm (r=0.253, p=0.004). Agreeable people are likely to care about what their significant others think of them and whether they approve of them or not. Agreeableness was also found to be moderately positively correlated with conscientiousness. (r=0.474, p<0.001)

Extroversion is positively correlated with conscientiousness (r=0.224, p=0.010). Extroverted respondents were likely to be conscientious as well.

Lastly, openness to experience was found to be positively correlated to extroversion (r=0.389, p<0.001), conscientiousness (r=0.462, p<0.001) and agreeableness (r=0.380, p<0.001).

# 5.3.5. Covid-19 Risk Perception

Both dimensions of Covid-19 risk perception were not found to be statistically significantly correlated to the dependent variables in this study. The emotional dimension was found to be positively correlated (r=0.185, p=0.039) with subjective norm.

The emotional dimension was also found to be significantly correlated to some of the personality traits. Emotional perception of Covid-19 risk is negatively correlated (r=0.237, p=0.007) with extroversion and positively correlated with neuroticism (r=0.263, p=0.003).

Lastly the cognitive and emotional dimensions of Covid-19 risk perception are positively correlated with each other. (r=0.241, p=0.006).

# **5.4.** Results of Regression Analyses

### 5.4.1. Stepwise Regression Analysis with Intention to Save

Stepwise linear regression method was chosen as the analysis method to investigate the relationships between the dependent variable (intention to save) and the independent variables. Independent variables are attitude, perceived behavioral control, subjective norm, financial literacy, the big five personality traits (extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience) and

Covid-19 risk perception (cognitive and emotional dimensions). All the independent variables except financial literacy were measured with five-point likert scales and then their means respectively made the score for the variable. Financial literacy was measured with three questions, each correct answer was equal to one point and the sum of correct answers made the financial literacy score. All variables were standardized.

The model involves eleven independent variables mentioned above as the predictors of intention to financially save. To start the analysis the variables of theory of planned behavior are entered into the regression. Predicted regression equation is:

$$Y = -0.008 + 0.253 \ (ATTITUDE) + 0.234 \ (SUBJECTIVE NORM) + 0.525 \ (PERCEIVED BEHAVIORAL CONTROL)$$

In the equation Y equals to the standardized variable of intention to perform financial saving behavior. Standardized intention to save variable ranges between -2.07 and 1.01.

In the second step financial literacy is added into the equation.

These two equations are found to be statistically significant with p<0.001 and all independent variables are statistically significant as well. In the next step personality traits are added and in the last step Covid-19 risk perception is added into the equation. The independent variables in the last two steps are not found to be significant predictors of intention to save. Below are the regression equations of the third and fourth step of the analyses.

### Third step:

Y = -0.012 + 0.526 (PERCEIVED BEHAVIORAL CONTROL) + 0.276 (SUBJECTIVE NORM) + 0.226 (ATTITUDE) + 0.141 (FINANCIAL LITERACY) + 0.038 (EXTROVERSION) - 0.010 (CONSCIENTIOUSNESS) - 0.045 (AGREEABLENESS) + 0.036 (NEUROTICISM) + 0.004 (OPENNESS TO EXPERIENCE)

## Fourth step:

Y = -0.013 + 0.529 (PERCEIVED BEHAVIORAL CONTROL) + 0.265 (SUBJECTIVE NORM) + 0.230 (ATTITUDE) + 0.140 (FINANCIAL LITERACY) + 0.057 (EXTROVERSION) - 0.021 (CONSCIENTIOUSNESS) - 0.039 (AGREEABLENESS) + 0.024 (NEUROTICISM) + 0.004 (OPENNESS TO EXPERIENCE) + 0.041 (COGNITIVE COVID-19 RISK PERCEPTION) + 0.064 (EMOTIONAL COVID-19 RISK PERCEPTION)

In all the steps of the analysis the regression equation is found to be statistically significant with p value < 0.001. The first model with only the TPB variables has an adjusted  $R^2$  of 0.627 which means the theory of planned behavior by itself explains 62.7% of the variation in the intention to financially save. When financial literacy is added into the model the adjusted  $R^2$  increases to 0.653 which explains the 65.3% of the variance. Personality traits' beta coefficients are not significant adding them into the model decreases the adjusted  $R^2$  to 0.629. In the last step the addition of Covid-19 risk perception does not have an impact on the adjusted  $R^2$  and it stays at 0.629.

The findings are in support of hypotheses H2A, H2B, H2C and H4.

**Table 8: Factors Affecting Intention to Financially Save** 

Mode	1				Adjusted
		В	F Value	Standardized Beta	R-square
Step	(Constant)	-0.008	66.994		0.627
1**	PBC	0.525**		0.516	
	Subjective Norm	0.234**		0.232	
	Attitude	0.253**		0.249	
Step	(Constant)	-0.011	53.707		0.653
2**	PBC	0.515**		0.506	
	Subjective Norm	0.258**		0.255	
	Attitude	0.240**	_	0.236	_
	Financial Literacy	0.141*		0.133	
Step	(Constant)	-0.012	23.230		0.629
3**	PBC	0.526**		0.517	
	Subjective Norm	0.276**		0.273	
	Attitude	0.226**		0.222	
	Financial Literacy	0.141*		0.134	
	Extroversion	0.038		0.037	
	Conscientiousness	-0.010	_	-0.010	_
	Agreeableness	-0.045		-0.045	
	Neuroticism	0.036	_	0.035	_
	Openness to Experience	0.004	_	0.004	_
Step	(Constant)	-0.013	7.338		0.629
4**	PBC	0.529**		0.520	
	Subjective Norm	0.265**		0.262	
	Attitude	0.230**		0.226	
	Financial Literacy	0.140*		0.133	
	Extroversion	0.057		0.055	
	Conscientiousness	-0.021		-0.021	
	Agreeableness	-0.039		-0.039	
	Neuroticism	0.024		0.023	
	Openness to Experience	0.004		0.004	
	Cognitive CRP	0.041		0.040	
	Emotional CRP	0.064	1	0.061	1

Notes: PBC=Perceived Behavioral Control, CRP=Covid-19 Risk Perception, \*p<0.05, \*\*p<0.01

# 5.4.2. Linear Regression Analysis with Saving Behavior

In this analysis saving behavior was used as the dependent variable and all the theory of planned behavior constructs including intention along with the other independent variables from the stepwise regression analysis was used to predict the behavior to financially save. The regression equation was significant with an F value of 2.619 and a p value of 0.004. Adjusted R-square of the regression was 0.224. The model explains 22.4% of the variation in financial saving behavior. The coefficients of independent variables on the model were not statistically significant. More detailed results of the analysis are provided in the appendix.

### **CHAPTER 6**

#### **CONCLUSION**

This study investigated the effects of attitude, subjective norm, perceived behavioral control, personality traits, financial literacy and Covid-19 risk perception on intention to financially save.

The theory of planned behavior predictors of attitude, subjective norm and perceived behavioral control all worked in the suggested model with statistically significant beta coefficients in the regression equation with perceived behavioral control having the largest coefficient. Proving that like in other contexts the theory of planned behavior is a good fit for predicting saving behavior in Turkish context as well.

Personality traits and Covid-19 risk perception variables were not found to be statistically significant predictors of saving intentions in this study. The reasons as to why these were not significant are relevant discussion topics.

Although the big five personality traits did not play a significant role in predicting intention to financially save some of the traits had statistically significant correlations with theory of planned behavior items. Neuroticism had a negative correlation with perceived behavioral control, considering perceived behavioral control has the highest coefficient in the regression equation this finding is worth noting. Agreeableness was found to have a positive statistically significant relationship with subjective norm.

The emotional dimension of the Covid-19 risk perception has a statistically significant relationship with subjective norm which is one of the high coefficient predictors in the regression equation.

The findings entail that financial literacy is a significant predictor of intention to financially save and it has a positive impact along with the theory of planned behavior constructs. This adds to the strong literature on financial literacy's positive impact on beneficial financial behavior.

Even though the added variables in the third and fourth step of the regression do not provide significant coefficients the regression equation remains statistically significant and explaining a fair amount of variation in the intention of financially saving.

The results and findings of the thesis contribute to the saving behavior literature by shedding light into the financial saving behavior in the Turkish context while providing points of discussion and future directions to further develop the literature.

### **CHAPTER 7**

#### DISCUSSION

The findings from the study give lots of room for discussion. Firstly, the study strengthens the literature on the theory of planned behavior being a good predictor for saving intention. In our findings all three predictors used in the theory are found to be significantly positively affecting the intention to save. This confirms our hypotheses H2A, H2B and H2C and is in line with the literature.

Perceived behavioral control had the highest coefficient in the regression equation on predicting the intention to save. Also, in the correlations with actual saving behavior perceived behavioral control had the highest positive significant correlation with saving behavior both in the act of saving and the percentage of income saved questions. Ajzen, confirms in one of his papers that sometimes perceived behavioral control is an even better predictor of a behavior than intention to save.

Due to the small sample size structural equation modelling method could not be employed for the study so it was not possible to analyze the relationship between intention to financially save and the actual financial saving behavior. Correlations were checked for the relationships, and it was found that there was a moderate positive significant relationship between intention to save and both the act of regular savings and the percentage of income saved.

The big five personally traits were not found to be significant predictors of the saving behavior in the study. It was expected that conscientiousness and extroversion would have a positive impact on intention to save while agreeableness, neuroticism, and openness to experience would have a negative relationship. In the regression equation the coefficients were found to be minimal and far from significant. This is not in line with the literature but there is a difference of context. The samples of the studies in the literature differ from the sample of this study and none of the former studies regarding personality and savings were conducted here in Turkey. Cumulative culture might play

a bigger impact than individual personality traits. Also, the data was collected in a time of hyperinflation and a pandemic. Due to the dire circumstances individual factors may have played a more smaller, in this case insignificant, role in the act of saving. The literature used to derive the hypotheses collected their data from USA and developed countries of Europe where inflation is almost non-existent and more individualistic cultures are observed. The findings in our study regarding the significant effect of subjective norm also may be an indication to the collectivistic culture being at work.

Financial literacy having a positive impact on the intention of saving confirms H4. This is in line with the literature. People with higher financial literacy have better wealth accumulation and the sample used in this study consisted of civil servants with stable income levels therefore the pandemic's and the economical conditions' effect on these people's intention to financially save could have been lower than their less financially literate counterparts.

The Covid-19 risk perception did not have a significant impact on the dependent variable of intention to financially save in the study. The coefficients were insignificant in both cognitive and emotional dimension of the Covid-19 risk perception. The data on the survey was collected near the end of the pandemic with most people being vaccinated. Also, the symptoms experienced with the illness had become less severe therefore it has been started to be seen as like a cold or a flu by the public.

It can also be explained in the light of Kübler-Ross' grief theory. (Kübler-Ross & Kessler, 2005) Grief can be used to describe a lot of negative experiences like death, divorce, losing your job etc. In this case it can be considered as falling ill. This theory consists of five steps. Denial, anger, bargaining, depression and accepting. The data collection period of the study is in the accepting period in this cycle. In this period people have learned to live with the situation and even adapted to it so it has less of an effect on the human psyche and behavior. If the data was collected in the earlier periods, the results may have been different and significant in difference to the ones found in this study.

### 7.1. Implications

The study contributes to the literature by shedding light on the effects of attitude, subjective norm, perceived behavioral control, personality traits, financial literacy and Covid-19 risk perception on the intention to financially save in the Turkish context. Theory of planned behavior has been retested and was found to be a good fit for saving behavior in this particular context as well also strengthening the notion of perceived behavioral control being a better predictor of behavior sometimes.

The insignificant results on the personality traits and Covid-19 risk perception are as important as they indicate these variables may not be the best predictors of financial saving behavior in this time and place and other factors should be explored to understand financial saving behavior better.

The positive relationship of financial literacy on intention to financially save strengthens the literature on the effect of financial literature having a positive impact on exhibiting good financial behavior.

The study also has implications for government and policy makers as saving behavior should be incentivized. All the respondents to the survey were civil servants and considering the impact of financial literacy on the savings and its effects on retirement planning people should be educated about financial matters. A minority of the sample got all the simple financial literacy questions right and most people struggled with the question regarding risk diversification. People picked the wrong answers over the option of no answer more frequently on the survey which could mean they are misinformed about risk diversification and financial matters in general.

Lastly, the businesses, especially insurance companies, can also make use of the findings by applying them into matters relating to retirement planning. Saving and retirement planning are concepts that go hand in hand in the literature. Retirement planning plays a big part on designing compensation packages in businesses, whether regular payments to a retirement plan or otherwise investing the funds. Sometimes it is left up to the respondent and it is important the individual has the financial literacy to understand the importance of their selection and choose accordingly.

### 7.2. Limitations and Future Directions

The findings from this research should be viewed in consideration to some limitations faced along the way. Starting with the sampling, convenience sampling was used due to the lack of time and resources. The survey only included employees of Middle East Technical University. Although METU has a diverse population with employees from around the country and different backgrounds, there was no way of assuring the entire population was represented. (Feng et al., 2020)

Due to the pandemic face to face or by hand data collection was not possible for the study and only the online reach resulted in a limited number of respondents to the survey. The survey could give more reliable results with a larger sample size.

Structural equation modelling could be employed as the analysis method with a larger sample to see the statistical relationship between intention to financially save and the actual financial saving behavior. The sample size in this study was not fit for running structural equation modelling therefore stepwise linear regression method was employed.

The answers to the survey are self-reported and therefore vulnerable to self-affirmation and confirmation biases. The respondent could have portrayed themselves as a more positive or socially acceptable individual due to these reasons or what they deem socially acceptable.

The bias on sample collection should be taken into account as well. Only the internet users responded to the survey and these individuals differ from those who do not use the internet. (Ogawa & Ida, 2015) Also all respondents to the survey were university employees indicating a higher level of education in the majority of the sample. Considerably lower education levels are also represented in the sample through administrative employees.

Data collection occurred in the late stages of the pandemic, as most people are already vaccinated and learned to live with the pandemic with also lesser symptoms. People are in the acceptance stage of the Kübler-Ross grief cycle therefore Covid-19 Risk Perception does not play as important of a role as it did in the earlier stages of the

pandemic. If it was possible to collect the data in the anger or depression stages, the results might have been much more prevalent.

The study had a narrow scope due to the time and resource limitations; future research can be conducted to see whether the results are replicated on general population in Turkey or any other country. The Covid-19 risk perception may have an expiration date on its significance, but personality traits and financial literacy could be retested.

Another variable of interest to investigate could be culture of the countries saving literature mostly consists of works from the USA and developed countries of Europe. These countries almost all have individualistic cultures according to Hofstede's dimension of cultures theory. (1980) Turkey has a more collectivistic culture in comparison to these countries prevalent in the literature therefore for an individuality related variables like personality traits may not have played as significant of a role on intention to financially save in the Turkish context. A survey could be conducted with an international sample to see whether the dimensions of cultures, especially individuality and collectivity, play a part in explaining saving behavior.

Qualitative research can be conducted to explore why personality traits were not statistically significant predictors to intention to saving. It can be helpful in understanding the context whether if it is a cultural difference from other samples that showed significant relationship or socio-economical factors that hold people back from saving before even getting affected by the traits.

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### **APPENDICES**

# A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ APPLIED ETHICS RESEARCH CENTER



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Sayı: 28620816/ 01 ARALIK 2021

Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

### Sayın Özlem ÖZDEMİR

Danışmanlığını yürüttüğünüz Mert GÜLEÇ'in "Üniversite Çalışanlarında Biriktirme Davranışını Etkileyen Faktörler" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve 474-ODTU-2021 protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prot.Dr. Mine MISIRLISOY İAEK Başkanı

# **B. TURKISH SURVEY**

	Merhaba, ben Mert Güleç. ODTÜ İşletme bölüm görevlisiyim. Prof. Dr. Özlem Özdemir danışma konum üniversite çalışanlarının para biriktirme faktörleri belirlemek. Anketime katılıp veri topla olursanız çok sevinirim.	nlığında, tez davranışını etkileyen
	Bu araştırma, ODTÜ İşletme Bölümü araştırma Güleç tarafından yürütülen bir yüksek lisans tez form sizi araştırma koşulları hakkında bilgilend hazırlanmıştır.	ri çalışmasıdır. Bu
	Çalışmanın amacı nedir?	
	Araştırmanın amacı, katılımcıların para biriktir bilgi toplamaktır. Araştırma 18 yaşından büyük dili olarak Türkçe kullanan üniversite çalışanlar	ve günlük konuşma
	Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?	
	Araştırmaya katılmayı kabul ederseniz, sizden b alan soruları cevaplandırmanızdır. Bu çalışmaya ortalama 8 dakika sürmektedir.	
	Sizden Topladığımız Bilgileri Nasıl Kullanacağız	<b>z</b> ?
	Araştırmaya katılımınız tamamen gönüllülük es Ankette, sizden kimlik veya kurum belirleyici hi istenmemektedir. Cevaplarınız tamamıyla gizli t edilecek bilgiler toplu halde değerlendirilecek ve kullanılacaktır.	çbir bilgi utulacak ve elde
	Katılımınızla ilgili bilmeniz gerekenler:	
	Anket, genel olarak kişisel rahatsızlık verecek so Ancak, katılım sırasında sorulardan ya da herha nedenden ötürü kendinizi rahatsız hissederseniz yarıda bırakıp çıkmakta serbestsiniz.	ngi başka bir
	Bu çalışmaya katıldığınız için şimdiden teşekkür	ederiz.
	Çalışma hakkında daha fazla bilgi almak için M mertg@metu.edu.tr) ile iletişim kurabilirsiniz.	ert Güleç (E-posta:
	Yukarıdaki bilgileri okudum ve bu çalışmaya tama	men gönüllü olarak katılıyorum.
B1.	Kaç yaşındasınız?	

B2.	Cinsiyetiniz?  Kadın  Erkek  Non-Binary  Diğer
В3.	Hangi departmanda/birimde çalışıyorsunuz?
B4.	Kaç çocuk sahibisiniz?
B5.	Kaç adet gayrimenkul (emlak ve taşınmaz) sahibisiniz?
В6.	Tüm gelir kaynaklarınızı düşündüğünüzde bir aylık toplam geliriniz ne kadardır?
	4.001-6.000 TL
	6.001-8.000 TL
	8.001-10.000 TL
	10.001-12.000 TL
	12.001-14.000 TL
	14.001- 16.000 TL
	16.001 - 18.000 TL
	18.001 - 20.000 TL
	20.001 - 40.000 TL
D7	40.001 TL ve üzeri
В7.	Geçtiğimiz yıl boyunca harcamalarınızı nasıl tanımlarsınız?
	Harcamalar geliri geçti/aştı.
	Harcamalar gelir ile eşitti.
	Harcamalar gelirden azdı.
B8.	Gelirinizin yaklaşık olarak yüzde kaçı arttı?

B9. Geçtiğimiz yıl içinde TL olarak lütfen beli varlığınız yoksa kişis belirtebilirsiniz.							
Vadesiz hesap	/ Küçü	ik cari hesap	/ Çek Hesabı				
		Ta	sarruf bonosu				
Komisyonculuk yada yatırım y	yönetin	ı servisi olan	benzer hesap				
	E	ğitim tasarru	ıf planı hesabı				
		Bireysel em	eklilik hesabı				
İşv	erenin	sağladığı em	eklilik hesabı				
		Borçla	rın azaltılması				
Aşağıda size kişilik özelliklerinizle ilgili bazı ifadeler v	verilmiştir.	Lütfen size en uy	gun olanı işaretleyin.	(1 = Hiç katılmıyorı	um. , 5 = Çok katılıy	orum.)	
1 2				3	4	5	Yanıt yok
С	Düzenli						
İçine K	İçine Kapanık						
	Titiz						
К	Kaprisli						
1	Duyarlı						
H	Huysuz						
Yardır	msever						
Hoş	görülü						
	İçten						
İyi	Niyetli						
Т	edbirli						
Ut	tangaç						
	Durgun						•
S	abırsız						

Üşengeç				
Yaratıcı				
Çalışkan				
Sinirli				
Sorumsuz				
Çekingen				
Kendinden Emin				
Alıngan				
Pasif				
Disiplinli				
Agresif				
Soğuk				
Kaygılı				
Sevecen				
Aceleci				
Canayakın				
Kendine Güvene	en O			
Ces	ur O			
Paylaşım	ncı 🔾			
Girişke	en O			
Konuşka	an O			
Kızg	gin O			
Kabiliye	tli			
Azin	nli			

D1.	Gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına para yatırma niyetindeyim.		
	(Fazlasıyla Olasılık Dışı = 1, Fazlasıyla Olası = 5)	1	
D2.	Benim için önemli olan çoğu kişi gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına para yatırımam gerektiğini/gerekmediğini düşünüyor.		
	(Yatırmamalıyım = 1, Yatırmalıyım = 5)	1	
D3.	Benim için gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına para yatırmak:  (1 = Mümkün Değil , 5= Mümkün)	_	
		1	
D4.	Benim için gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına para yatırmak		
	Zararlı = 1, Yararlı = 5	* 5 ][] ][]	

D5.	Gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına para yatırmaya çalışacağım.	
	(1 = Kesinlikle Yanlış, 5 = Kesinlikle Doğru)	
		, $\Box$
		1 📙
		2
		3
		<u> </u>
		4 📙
		5
D6.	Hayatımda görüşlerine değer verdiğim kişiler gelecek yıl içinde en az üç ayda bir tasarruf veya yatırım hesabına düzenli para yatırmamı:	
	(Onaylamazdi = 1, Onaylardi = 5.)	
		1
		3
		- <del>-</del>
		3 📙
		4
		5 🖒
D.7		, <sub>□</sub>
<b>D</b> 7.	Gelecek yıl içinde en az her üç ayda bir tasarruf veya yatırım hesabına düzenli para yatırmam veya yatırmamam çoğunlukla bana bağlıdır.	
	(Kesinlikle Katılmıyorum = 1  , Kesinlikle Katılıyorum = 5)	
		1
		2
		<u> </u>
		3
		4
		5
Г1		, <sub>□</sub>
E1.	COVID-19 Pandemisi tasarruf davramşımzı ne yönde etkiledi?	
	Artt	tı.
	Azald	h.
	Değişmed	i. Ċ
	Digijano	📙

E2. COVID-19 Risk Algısı	
Ez. COVID-12 Risk Algisi	Uzak bir Büyük
	ihtimal ihrimal
Sizce Koronavirüs'e yakalanma ihtimaliniz ne	lir?
Kendinizi diğer insanlar ile karşılaştırdığınızda, Koronavir yakalanma ihtimaliniz ne	is'e
Diğer hastalıklara yakalanma ihtimaliniz nedir? (örneğin. SA kanser, kalp kı	
Sizce Koronavirüs'ten dolayı ölme ihtimaliniz ne	lir?
Koronavirüs'e yakalanmaktan endişe ediyor musun	nuz?
Ailenizden birinin Koronavirüs'e yakalanmasından endişe edi musun	
Bulunduğunuz bölgede Koronavirüs'un yayılmasından endişe edi musun	
Koronavirüs'un büyük bir sağlık sorunu haline gelmesinden en ediyor musun	
F1. Tasarruf hesabında 100 TL'niz ve yıllık fa var sayın. Eğer paramzı artması için hesal sonra sizce hesabınızda ne kadar para olu	bınızda bırakırsanız beş yıl
F	102 TL'den fazla.
	Tam 102 TL.
	102 TL'den az.
F2. Tasarruf hesabımzın faiz oranının yıllık y	Ь
enflasyonun yıllık yüzde 2 olduğunu varsa hesaptaki para ile bugünden fazlasını mı, yoksa azını mı satın alabilirsiniz?	yın. Bir yıl sonra, bu
•	Bugünkünden fazlasını.
	Bugünkü ile tamamen aynı.
	Bugünkünden azını.
F3. Bir şirketin hisse senedini almak genellikl almaktan daha güvenli getiri sağlar.	e yatırım fonu (ortak fon)
	Doğru.
	Yanlış.
	Bilmiyorum/Emin değilim.
G1. Araştırma sonunda gerek duyulursa sizinl	· – –
yapılmasına izin veriyor musunuz?	
	Evet
	Hayır

G2.	Size ulaşabileceğimiz e-posta adresiniz:	
	Çalışmaya katıldığınız için teşekkürler.	

## C. SPSS OUTPUTS

Table C-1: Linear Regression with Percentage Saving

		C	pefficient	ea		
		C	Jemciem	Standardiz		
				ed		
		Unstand	dardized	Coefficient		
		Coefficients		s		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-5.598	3.939		-1.421	0.158
	intmean	4.180	1.015	0.356	4.118	0.000
2	(Constant)	-6.142	6.678		-0.920	0.360
	intmean	2.776	1.676	0.236	1.656	0.100
	pbcmean	2.624	1.428	0.219	1.837	0.069
	snmean	-1.054	1.908	-0.065	-0.553	0.582
	attmean	0.121	1.848	0.008	0.065	0.948
3	(Constant)	-15.376	7.790		-1.974	0.05
	intmean	1.965	1.689	0.167	1.164	0.24
	pbcmean	2.874	1.409	0.240	2.039	0.044
	snmean	-0.240	1.912	-0.015	-0.126	0.900
	attmean	0.091	1.818	0.006	0.050	0.960
	flsum	3.975	1.804	0.193	2.204	0.030
4	(Constant)	-10.449	15.332		-0.682	0.49
	intmean	1.866	1.727	0.159	1.080	0.28
	pbcmean	2.911	1.496	0.243	1.945	0.05
	snmean	-0.019	2.082	-0.001	-0.009	0.99
	attmean	0.298	1.918	0.019	0.156	0.87
	flsum	3.975	1.873	0.193	2.122	0.03
	extromean	0.657	1.999	0.032	0.329	0.74
	consmean	-2.147	2.494	-0.095	-0.861	0.39
	agrmean	-0.796	2.960	-0.029	-0.269	0.789
	neumean	-0.674	1.920	-0.033	-0.351	0.72
	openmea	1.309	2.696	0.053	0.485	0.628
5	(Constant)	-4.155	16.689		-0.249	0.80
	intmean	2.021	1.750	0.172	1.155	0.25
	pbcmean	2.620	1.527	0.219	1.715	0.089
	snmean	-0.254	2.128	-0.016	-0.120	0.90
	attmean	0.335	1.936	0.022	0.173	0.86
	flsum	4.070	1.886	0.198	2.158	0.033
	extromean	0.306	2.055	0.015	0.149	0.88
	consmean	-2.265	2.545	-0.100	-0.890	0.37
	agrmean	-0.676	2.990	-0.025	-0.226	0.82
	neumean	-0.673	1.956	-0.033	-0.344	0.73
	openmea n	1.502	2.718	0.061	0.553	0.58
	covcogme	-1.908	1.828	-0.098	-1.044	0.29
	covemom	0.161	1.325	0.012	0.122	0.90

**Table C-2: Binary Logistic Regression** 

	Variables in the Equation						
		В	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	flsum	0.560	0.374	2.242	1	0.134	1.751
	intmean	0.502	0.315	2.539	1	0.111	1.653
	pbcmean	0.484	0.275	3.110	1	0.078	1.623
	snmean	-0.125	0.386	0.105	1	0.746	0.883
	attmean	0.105	0.385	0.074	1	0.785	1.111
	extromean	0.151	0.342	0.195	1	0.659	1.163
	consmean	-0.746	0.468	2.545	1	0.111	0.474
	agrmean	0.254	0.509	0.249	1	0.618	1.290
	neumean	-0.054	0.328	0.027	1	0.869	0.947
	openmea n	0.638	0.490	1.696	1	0.193	1.893
	covcogme an	-0.182	0.306	0.354	1	0.552	0.833
	covemom	0.150	0.227	0.435	1	0.509	1.161
	Constant	-6.448	3.034	4.516	1	0.034	0.002

a. Variable(s) entered on step 1: flsum, intmean, pbcmean, snmean, attmean, extromean,

**Table C-3: Financial Literacy Scores of the Sample** 

financial literacy						
	N	%				
,00	10	7.7%				
1,00	8	6.2%				
2,00	79	60.8%				
3,00	29	22.3%				
Missing	4	3.1%				

**Table C-4: Binary Logistic Regression Model** 

Classification Table <sup>a</sup>								
					Predicted	,		
				Sav	ing	Percentag		
Observed			0		1	e Correct		
Step 1	Saving	0		69	10	87.3		
		1		17	23	57.5		
	Overall P	ercentage				77.3		
a. The cut value is ,500								

**Table C-5: Binary Logistic Regression Variables** 

Variables in the Equation							
		В	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	flsum	0.560	0.374	2.242	1	0.134	1.751
	intmean	0.502	0.315	2.539	1	0.111	1.653
	pbcmean	0.484	0.275	3.110	1	0.078	1.623
	snmean	-0.125	0.386	0.105	1	0.746	0.883
	attmean	0.105	0.385	0.074	1	0.785	1.111
	extromean	0.151	0.342	0.195	1	0.659	1.163
	consmean	-0.746	0.468	2.545	1	0.111	0.474
	agrmean	0.254	0.509	0.249	1	0.618	1.290
	neumean	-0.054	0.328	0.027	1	0.869	0.947
	openmea n	0.638	0.490	1.696	1	0.193	1.893
	covcogme an	-0.182	0.306	0.354	1	0.552	0.833
	covemom	0.150	0.227	0.435	1	0.509	1.161
	Constant	-6.448	3.034	4.516	1	0.034	0.002

a. Variable(s) entered on step 1: flsum, intmean, pbcmean, snmean, attmean, extromean,

**Table C-6: Gender and Saving Crosstab** 

			Saving 8	Gender			
			Ger	nder			
	Women Men				Total		
		N	%	N	%	N	%
Saving	0	5	68.3%	28	58.3%	84	64.6%
	1	2	31.7%	20	41.7%	46	35.4%
Total		8	2 100.0%	48	100.0%	130	100.0%

## D. TURKISH SUMMARY / TÜRKÇE ÖZET

Finansal tasarruf davranışı, bireylerin kendilerini gelecekteki harcamalardan korumak için uyguladıkları rasyonel bir davranıştır. İnsanların harcanabilir gelirlerinden harcamamayı tercih ettikleri para miktarı tasarruf davranışı olarak kabul edilir.

Tasarruf davranışı, literatürde yıllar boyunca birçok teori altında incelenmiştir. Planlı davranış teorisi, finansal tasarruf davranışını tahmin etmede en tutarlı olanlardan biri olarak bulunmuştur. Planlı davranış teorisinde kullanılan yordayıcılar; tutum, öznel norm ve algılanan davranışsal kontroldür.

Bu çalışma aynı zamanda planlı davranış teorisini kullanır ve finansal tasarruf davranışını daha iyi açıklama umuduyla yeni değişkenler ekler. Tasarruf ile ilgili olarak beş büyük kişilik özelliği, finansal okuryazarlık ve Covid-19 risk algısı değişkenleri incelenmiştir.

Literatürde beş büyük kişilik özelliğinin her birinin finansal tasarruf davranışı ile ilişkili olduğu ve bazı bulguların çelişkili olduğu bulunmuştur. Mowen (2000), kişilik özelliklerinin tüketici davranışının kökeninde olduğunu öne sürmektedir. Tasarruf, tüketicinin tüketmemeyi seçtiği miktar olduğu için de ilişkilidir.

Finansal okuryazarlık, önceki çalışmalarda iyi finansal davranışın değerli bir yordayıcısı olarak kabul edilmektedir.

Covid-19 risk algısı, içinde bulunduğumuz dönem nedeniyle ilgi duyulan bir değişkendir. Pandemi, insanları hem psikolojik hem de ekonomik olarak etkilemiş ve bu nedenle finansal tasarruf davranışı ile ilişkili görülmüş ve bu çalışmada incelenmiştir.

Tez, bazı demografik bilgileri de kontrol ederken finansal okuryazarlık, kişilik özellikleri ve Covid-19 risk algısının finansal tasarruf davranışı üzerindeki etkisini araştırmayı amaçlamaktadır.

Finansal tasarruf davranışı, tüketiciler tarafından acil durumlara veya emekliliğe hazırlanmak için benimsenen rasyonel bir davranıştır. İnsanların tüketim için harcamayı tercih etmedikleri para, tasarruf davranışı olarak kabul edilir. Bu davranış, gelecek için finansal bir güvence sağlar. Bireyleri beklenmedik harcamalardan veya gelir kaybından korumak ve sonuçları hafifletmelerine yardımcı olmak.

Literatürde bu davranışı inceleyen birçok çalışma bulunmaktadır. Tasarrufu açıklamak için iki yaklaşım vardır. Biri Modigliani (1966) tarafından geliştirilen yaşam döngüsü modeli, diğeri ise Nobel ödüllü ekonomist Milton Friedman (1957) tarafından geliştirilen kalıcı gelir hipotezi yoluyla.

Yaşam döngüsü modelinde, insanların artık yaşamlarında servet biriktirmedikleri zaman aynı miktarda tüketebilmek için tüketimi sabit tuttukları varsayılmaktadır. Birinin hayatının ilk yıllarında servet birikimi yoktur. Yetişkin olduklarında, bir kısmını biriktirmeye ve yaşam standartlarını aynı tutmak için yaşlandıkları zaman için biriktirmeye başlarlar.

Kalıcı gelir hipotezi biraz farklı bir yaklaşıma sahiptir. Friedman, insanların paralarını uzun vadeli ortalama gelirleri olmasını bekledikleri bir düzeyde harcadıklarını varsayıyor. Bu yaklaşım, çalışan bir yetişkinin ancak kazandıkları mevcut paranın bekledikleri kalıcı gelirden daha fazla olduğunu düşündükleri bir durumda tasarruf edeceğini öne sürer.

Tasarruf davranışını etkileyen faktörler, birçok belirleyici göz önünde bulundurularak yıllar boyunca araştırılmıştır. Yaş, gelir, eğitim durumu, medeni durum gibi demografik bilgilerin tasarruf davranışında önemli faktörler olduğu gösterilmektedir. Demografi tek başına bu davranışı açıklamak için yeterli değildir. Yıllar boyunca araştırmacılar, davranışları kurtarmada bir rol oynayıp oynamadıklarını görmek için diğer birçok değişkeni test etti. Bu değişkenler kişilik, finansal okuryazarlık, niyet, öznel norm, algılanan davranışsal kontrol ve risk algısını içerir ancak bunlarla sınırlı değildir.

Yaş, cinsiyet, gelir, medeni durum, eğitim düzeyi gibi demografik faktörler yıllar boyunca tasarruf davranışını tahmin etmede bağımsız değişkenler olarak kullanılmaktadır. (Hayhoe, Cho & Devaney vd. 2012; Fisher, 2010; Brounen, Koedijk & Pownall, 2016)

Tasarrufun kişilikle ilişkisini inceleyen eserlerde ağırlıklı olarak beş büyük kişilik ölçüsü kullanılmaktadır. Asebedo, Wilmarth, Seay ve ark. 2019)

Finansal okuryazarlık, herhangi bir finansal davranış söz konusu olduğunda yaygın olarak kullanılan değişkenlerden biridir ve tasarruf istisna değildir. (Scott, Nguyen Vu, Cheng ve diğerleri 2018)

Tasarruf davranışı araştırmalarında kullanılan en popüler teori, Ajzen tarafından geliştirilen Planlı Davranış Teorisidir. (1991) İnsanların tasarruf etme niyeti, davranışa yönelik tutum, öznel norm ve algılanan davranışsal kontrolden oluşan üç yapı aracılığıyla tahmin edilmektedir. Yukarıda bahsedilen diğer demografik ve psikolojik faktörler bu üç yapıyı ve dolayısıyla tasarruf etme niyetini etkiler. (Çopur & Gutter, 2019)

ING Bank'ın insanları yaşamlarında sağlıklı finansal kararlar almaya teşvik etmek amacıyla başlattığı girişim, finansal davranışlarla ilgili araştırmalara yönelik bir ısı haritası hazırladı. Tasarruf davranışı bu davranışlardan biridir ve ısı haritası literatürdeki boşlukları göstermiştir.

Planlı davranış teorisi, kısaca TPB, davranışın yakın belirleyicileri konusunda yaygın olarak kullanılan teorilerden biridir. Kaydetme davranışı da dahil olmak üzere birçok davranış türünü tahmin etmek için kullanılmıştır. İlk olarak Ajzen (1991) tarafından yayınlanan bu yaygın olarak uygulanan teori, 2022 yılına kadar Google Akademik'te yüz binin üzerinde alıntı almıştır. TPB, daha önceki gerekçeli eylem teorisinden (TRA) oluşan gelişen bir teoriler dizisinin parçasıdır (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) ve sonraki Gerekçeli Eylem Yaklaşımı (RAA). (Fishbein & Ajzen, 2010) Bu teorilerin tümü, niyetlerin oluşumunu tahmin etmek için bilgiyi işler.

Her üç teori de, bir davranışı gerçekleştirmenin en önemli yakınsal faktörünün, bireyin onu yapmaya yönelik davranışsal niyeti olduğunu göstermektedir. TPB'nin üç niyet belirleyicisi vardır: tutum, öznel norm ve algılanan davranışsal kontrol. Tutum ve

öznel norm, önceki TRA'dan miras alınır. Algılanan davranışsal kontrol, TPB'deki öngörücülere eklenir.

Tutumlar, kişinin davranışının genel değerlendirmeleridir. Fishbein ve Ajzen (1975) tutumu, "belirli bir nesneye ilişkin olarak tutarlı bir şekilde olumlu veya olumsuz bir şekilde yanıt vermeye yönelik öğrenilmiş bir eğilim" olarak tanımlanmaktadır. Tutumlar genellikle iyi/kötü, sıkıcı/ilginç, zararlı/faydalı gibi anlamsal farklılıklar kullanılarak ölçülür, ör.)

Öznel normlar, bireyin davranışı gerçekleştirmesi için önemli diğerlerinin onayına ilişkin bireyin inançlarından oluşur. Bu normlar, kişinin söz konusu davranışı gerçekleştirme konusunda kendini özgür hissedip hissetmediği ile ilgili sosyal baskıyı değerlendirir. Bu öngörücü genellikle önemli kişilerin davranış için onayını değerlendirerek ölçülür. (Ajzen 2002a; Conner & Sparks, 2015)

TPB tarafından dahil edilen üçüncü öngörücü, algılanan davranışsal kontroldür (PBC). Bu, bireyin davranışı gerçekleştirmede ne ölçüde kontrol altında olduğu konusundaki algısıdır. Sürekliliğin bir ucunda kolayca gerçekleştirilebilen davranışlar (örneğin yürüyüşe çıkmak) ve kaynak, fırsat ve beceri gerektiren davranışlar (örneğin olimpiyat sporcusu olmak) olmak üzere iki uç vardır. PBC genellikle, kişinin davranışı gerçekleştirebileceği güven düzeyini ve bunu yapıp yapamayacağını değerlendiren maddelerle ölçülür. Teori ayrıca algılanan davranışsal kontrolün davranışı daha doğrudan etkilediğini öne sürüyor. (Ajzen 2002a; Conner & Sparks, 2015)

Her üç yapı da farklı inanç türlerinin işlevleridir. Tutum, temel davranışsal inançların bir işlevidir. Belirli bir sonuçla sonuçlanacak davranış üzerinde hareket etmenin algılanan olasılığını temsil eder veya bir nitelik ile ilişkilendirilir.

Öznel norm, normatif inançların bir işlevidir. Bu normatif inançlar: bireyin, diğer önemli kişilerin davranışı gerçekleştirme hakkında ne düşündüklerini, nasıl algıladığını temsil eder. Bu referanslar, önemli diğerleri, görüşleri ve bireysel değerlerine önem verilen kişilerden oluşur.

Algılanan davranışsal kontrol, kontrol inançlarının bir fonksiyonudur. Bu inançlar, bireyin davranışı gerçekleştirmek için gerekli fırsatlara ve kaynaklara erişimi olup

olmadığı ile ilgilidir. Bu inançlar hem içsel (bilgi, fiziksel yetenek, beceriler, ör.) hem de dışsaldır. (Fırsatlar, başkalarına bağımlılık, çevresel faktörler, vs.)

İlk kişilik araştırmacıları insanlar arasındaki benzerliklere odaklandılar, ancak son zamanlarda bunun yerine bireylerdeki farklılıklara odaklanmaya başladılar. (McAdams, 1992) Bu yaklaşımlardan biri Beş Faktör Kişilik Modelidir. Bireylerin bilişsel, davranışsal ve duygusal örüntüleri farklılıklarıyla tahmin edilir ve bu varyasyonlara özellikler denir. (Costa & Widiger, 2005) Beş kişilik özelliği şu şekilde sıralanmıştır: vicdanlılık, nevrotiklik, deneyime açıklık, uyumluluk ve dışa dönüklük. Her özelliğin kendileriyle ilişkili yönleri vardır.

Nevrotizm, kaygı, depresyon, dürtüsellik, kırılganlık, öfkeli düşmanlık ve öz-bilinç ile ilişkilidir. Dışadönüklük alanı ile ilişkili yönler; arkadaşlık, şefkat, aktivite, heyecan arayışı, olumlu duygular ve atılganlıktır. Açıklık fantezi, duygular, estetik, değerler, fikirler ve eylemlerle ilişkilidir. Fedakarlık, güven, dürüstlük, uyum, alçakgönüllülük ve hassas fikirlilik, uyumluluk ile ilişkili yönlerdir. Son olarak, vicdanlılık düzen, göreve bağlılık, yeterlilik, başarı çabası, müzakere ve öz disiplin ile ilişkilidir. (Matthews, Sevgili & Whiteman, 2003)

Açıklık, üniversite öğrencileri için uzun vadeli tasarruf ve yatırım yapma niyetiyle ilgilidir (Mayfield, Perdue ve Wooten 2008). Çelişkili sonuçlar elde edilmiş olsa da, genel olarak daha fazla açıklık, düşük para yönetimi becerileri ile ilişkilidir (Troisi, Christopher ve Marek 2006).

Vicdanlılık özelliğinin tasarruf etme davranışı ve emeklilik ve yaşlılık planlaması ile pozitif bir ilişkisi olduğu bulunmuştur. (Hershey & Mowen 2000), Vicdanlılık aynı zamanda daha fazla birikmiş gelir ve net değer ile bağlantılıydı. (Letkiewicz ve Fox 2014; Nabeshima ve Seay 2015). Daha az vicdanlı olan bireyler kompulsif satın alma davranışı sergilediler (Mowen & Spears 1999).

Dışa dönük insanlar, daha yüksek net değer miktarları bildirdiler (Nabeshima & Seay 2015), bu da dışadönüklük özelliğinin bireyler üzerinde servet birikimini teşvik ettiğini ima ediyor.

Finansal davranış alanında, uyumluluk genellikle olumsuz çağrışımlara sahiptir. ABD'de yüksek uyumluluk puanlarına sahip yaşlı yetişkinler, emsallerine göre daha

düşük net değer gösterdi (Nabeshima ve Seay 2015) ve uyumluluk özelliği, artan miktarda zorlayıcı satın alma davranışıyla bağlantılıydı (Mowen ve Spears 1999).

İnsanlardaki nevrotiklik, öfke, iğrenme, utanç, korku, suçluluk ve üzüntü gibi kötü duyguları ifade etme konusunda kalıcı bir eğilim gösterir (Costa Jr. ve McCrae 1992). Yaşlanma ve emekli olma düşüncesi, özellikle finansal olarak emekliliğe hazır olmayan bireylerde endişe, stres ve korku duygularını harekete geçirebilir. Kararlı mizaçlı bireylerin (nevrotikliğin tersi) nevrotik benzerlerine göre daha az zorlayıcı davranışa düşkün oldukları bulunmuştur (Mowen ve Spears 1999). Bu bulgular, nevrotik kişilerin, tasarruf etmelerini engelleyebilecek kötü finansal davranışlar sergileme eğiliminde olduklarını göstermektedir.

Özünde okuryazarlık, bireyin yazma ve okuma yeteneği olarak tanımlanır. (Zarcadoolas, Pleasant ve Greer 2006) Okuryazarlık iki boyuttan oluşur; ilki anlamaktır (yani, kelimelerin ve matematiksel ifadelerin anlamlarını bilmek), ikincisi ise belge biçimlerini kullanmaktır.

Belge biçimlerinin kullanımı, ister genel ister matematiksel, ister finansal, isterse özel olsun, okuryazarlık bağlamında yazabilmeyi gerektirir. Örneğin, matematiksel formülleri okuyup yazabilmek matematik okuryazarlığının bir işareti olarak kabul edilir.

Mandell'e göre finansal okuryazarlık, insanların kısa ve uzun vadeli finansal kararlarını kendi çıkarları doğrultusunda verebilme yeteneğidir. (Mandell, 2008) Mali konulara ilişkin yeterlilik düzeyidir. Konuyla ilgili literatür, finansal eğitimin kişisel finansal davranışlar üzerindeki önemini ve sağladığı olumlu etkiyi göstermektedir. İşletme veya ekonomi ile ilgili konularda eğitim almış kişilerin iflas etme olasılığı meslektaşlarına göre daha düşüktür. (Bernheim, Garrett & Maki, 2001; Grimes, Rogers & Smith, 2010)

Finansal okuryazarlığın da tıpkı genel okuryazarlık gibi iki boyuttan oluştuğu düşünülebilir. Huston (2009) bu boyutları kişisel finans bilgisi ve kişisel finans uygulaması olarak kavramsallaştırmıştır. Atkinson ve Messy (2011), finansal okuryazarlığı finansal eğitim alanı aracılığıyla "sağlam finansal kararlar almak ve

nihayetinde bireysel finansal refahı elde etmek için gerekli olan farkındalık, bilgi, beceri, tutum ve davranışların bir kombinasyonu" olarak tanımlamaktadır.

COVID-19 virüsü 2019 yılında hayatımızın beklenmedik bir parçası haline geldi. Büyük ölçüde tüm dünyaya yayıldı ve bildiğimiz şekliyle hayatı değiştirdi. Dünya Sağlık Örgütü'ne (WHO) göre, Mayıs 2022 itibariyle dünya çapında 520 milyondan fazla Covid-19 vakası bildirildi ve dünya 6 milyondan fazla insanı kaybetti. İnsanlar aşılandıkça ve semptomlar daha az şiddetli hale geldikçe pandeminin sonuna doğru yaklaşıyoruz ancak durumun sonuçları, psikolojik ya da ekonomik olsun, her birey tarafından hala hissediliyor.

Pandeminin ruh sağlığı sonuçları üzerine bir meta çalışma, pandeminin incelenen travma sonrası stres belirtilerini ve depresyon vakalarını artırdığını ortaya koymaktadır. Halihazırda psikiyatrik bozuklukları olan kişiler semptomlarının kötüleştiğini bildirdiler. Genel halk üzerinde yapılan araştırmalar, pandemi öncesi zamanlara kıyasla genel olarak daha yüksek düzeyde depresyon ve kaygı ve daha düşük psikolojik iyilik olduğunu ortaya koydu. (Vindegaard ve Benros, 2020)

Salgının dünya ekonomisi üzerinde de önemli bir etkisi oldu. İzolasyon, sosyal mesafe ve seyahat kısıtlamaları, neredeyse tüm sektörlerde dünya genelinde işgücünün azalması anlamına geliyordu. Salgın nedeniyle insanlar işlerini kaybetti. Hemen hemen tüm eğitim kurumlarının yüz yüze eğitime ara vererek online eğitime geçmesi emtia ve mamul ürünlerinde düşüşe neden oldu. Tam tersine maske gibi tıbbi malzeme ihtiyacı ciddi oranda arttı. İnsanlar panikle satın almaya ve stoklamaya başlayınca gıda sektörlerinde talep artışı görüldü. Genel olarak pandeminin dünya ekonomisi üzerinde olumsuz bir etkisi oldu. (Nicola, Alsafi, Sohrabi, et al. 2020)

Enfeksiyonun yayılması ve ölüm riski insanlarda psikolojik yükler de oluşturmuştur. (Xiao, 2020) Virüse yakalanmak ve hastalanmak, ölüm kadar uzun vadede ciddi semptomların yaşanmasına da neden olabilir. Durumun ciddiyeti, insanların sonuçlardan korkmasına ve algılanan riskin artmasına neden olur.

Algılanan risk, insanların olumsuz bir sonucun olasılığı ve sonuçlarına ilişkin psikolojik değerlendirmelerini ifade eder. (Sjöberg, 2000) Bireyin başına kötü bir olayın gelme olasılığının çok yüksek olduğunu düşünmek için bir nedeni varsa, yüksek

risk algısına sahip olacak ve buna göre davranacak ve durumdan kaçınmak için davranış kalıplarını değiştirmeye veya durumla yüzleşmeye yönlendirecektir. hazırlık. Tasarruf, virüs bulaşırsa hastane masraflarını, işini kaybederse geçim masraflarını vs. karşılayabileceğinden, Covid-19 ile ilgili algılanan olumsuz sonuca hazırlanmada rol oynayabilir.

Yıldırım & Güler, Covid-19 için risk algılama ölçeği geliştirdi. (2020) Tedbir, Covid-19 risk algısının bilişsel ve duygusal boyutunu ölçen iki faktörlü bir yapıya sahiptir. Hem açıklayıcı hem de doğrulayıcı faktör analizleri ile test edilmiştir. Kadınlar erkeklerden daha yüksek duygusal risk bildirmiştir. Bulgular, Covid-19 risk ölçeğinin psikometrik olarak sağlıklı bir değerlendirme ölçeği olduğunu ileri sürdü.

Bu çalışma, planlı davranış teorisini kullanarak ve kişilik özellikleri, finansal okuryazarlık ve Covid-19 risk algısı gibi diğer ilgili değişkenleri ekleyerek üniversite çalışanlarının finansal tasarruf davranışlarını etkileyen faktörleri araştırmayı amaçlamaktadır. Finansal tasarruf davranışı ile ilişkili olarak kişilik özellikleri ve finansal okuryazarlık, önceki literatürde farklı bağlamlarda araştırılmıştır. Dünyanın karşı karşıya olduğu durumda yaygın bir faktör olduğu için Covid-19 Risk Algısını ekliyoruz.

Planlı davranış niyeti yordayıcılarının üç teorisinin tümü (tutum, öznel norm ve algılanan davranışsal kontrol) modelimizde bağımsız değişkenler olarak kullanılmıştır ve tasarruf etme niyeti bağımlı değişkendir. Finansal okuryazarlık, Covid-19 risk algısı (bilişsel ve duygusal boyutlar), beş büyük kişilik özelliği (dışadönüklük, vicdanlılık, nevrotiklik, geçimlilik ve deneyime açıklık) ve finansal okuryazarlık, finansal olarak finansal riske girme niyetini tahmin etmek için bağımsız değişkenler olarak modele eklenmiştir. kaydetmek. Buna karşılık, finansal olarak tasarruf etme niyeti, tasarruf davranışını öngörmelidir.

İlk iki hipotez, planlı davranış teorisi doğrultusunda türetilmiştir. Üç yapı (algılanan davranışsal kontrol, tutum ve öznel normlar) tasarruf etme niyetini olumlu yönde etkilemeli ve karşılığında tasarruf etme niyeti bireylerde finansal tasarruf davranışına dönüşmelidir.

H1: Finansal tasarruf eylemi, finansal tasarrufun davranışsal niyetinden olumlu etkilenir.

H2: Finansal tasarrufun davranışsal niyeti aşağıdakilerden olumlu etkilenir:

H2A. Finansal tasarruf davranışını gerçekleştirmede yüksek algılanan kontrol

H2B. Finansal tasarruf davranışına ilişkin olumlu tutum

H2C. Finansal tasarruf davranışını destekleyen öznel normlar.

Kişilik özellikleri ve bunların kurtarma davranışına ilişkin ilişkileri birkaç farklı araştırmacı tarafından farklı bağlamlarda incelenmiştir. Her kişilik özelliğinin tasarrufla ilişkisi bir önceki bölümde açıklanmıştır. Literatüre göre kişilik özelliklerinin ölçülen yoğunluğunun tasarruf davranışı üzerinde etkisi olmalıdır. Bu ilişkiler hakkında daha önceki literatürü sentezleyerek hipotezlerimize ulaştık.

H3: Kişilik özelliklerinin yoğunluğu tasarruf etme davranışsal niyetini etkiler.

H3A. Vicdanlılığın finansal tasarruf davranışsal niyeti üzerinde olumlu bir etkisi vardır.

H3B. Dışa dönüklük, finansal tasarruf yapma niyeti üzerinde olumlu bir etkiye sahiptir.

H3C. Nevrotizm, davranışsal tasarruf niyeti üzerinde olumsuz bir etkiye sahiptir.

H3D. Deneyime açıklık, davranışsal tasarruf niyeti üzerinde olumsuz bir etkiye sahiptir.

H3E. Uyumluluk, davranışsal tasarruf niyeti üzerinde olumsuz bir etkiye sahiptir.

Literatürde finansal okuryazarlık ve tasarruf davranışı ilişkisi de incelenmiştir. Bulgular, finansal okuryazarlığın iyi finansal davranış sergilemek için önemli bir yordayıcı olduğunu göstermektedir. Tasarruf davranışı iyi bir finansal davranış olarak kabul edilirken, finansal okuryazarlığın da tasarruf üzerinde iyi bir yordayıcı olduğu

tespit edilmiştir. Bu nedenle finansal okuryazarlığın tasarruf davranışında olumlu bir rol oynadığını varsayıyoruz.

H4: Finansal okuryazarlığın tasarruf etme davranışsal niyeti üzerinde olumlu bir etkisi vardır.

Covid-19 risk algısı ve finansal tasarruf davranışı ilişkisi doğrudan araştırılmamış olmasına rağmen, afet sonrasının tasarruf davranışı üzerindeki etkisi araştırılmış ve insanların afet vurduğunda yarın yokmuş gibi yaşama ve daha az tasarruf etme eğiliminde olduklarını göstermektedir. Çin'de yapılan bir araştırmada deprem sonrası insanların daha az tasarruf ettiği tespit edildi. (Filipski, Jin, & Zhang, et al., 2019) Bu nedenle, yüksek Covid-19 risk algısının davranışsal tasarruf niyetini olumsuz etkileyeceğini varsayıyoruz.

H5: Covid-19 risk algısı, tasarruf etme davranışsal niyetini olumsuz etkiliyor.

Anket METUSurvey üzerinde oluşturulmuştur. Yedi bölümden oluşur. Birinci grupta, katılımcılar gönüllü olarak ankete katılmayı kabul ederler. İkinci bölümde ise bazı demografik ve finansal tasarruf bilgileri sorulmuştur. Üçüncü soru grubu, likert tipi büyük beş kişilik özellikleri anlamsal farklılıklardır. Dördüncü grupta planlı davranış kuramını ölçen yapılar sorulmuştur. Beşinci soru grubunda, Covid-19 Risk Algısı ve Covid-19'un tasarruf davranışlarını etkileyip etkilemediği ile ilgili sorular vardı. Altıncı grupta ise finansal okuryazarlığı ölçmeye yönelik sorular yer almıştır. Son grup, katılımcılara daha fazla araştırma için bir görüşmeye katılmak isteyip istemediklerini sordu. Anket dili Türkçe olup, soruların tam listesi Ek'te verilmiştir.

Veri toplama işlemine başlamadan önce anketin bir kopyası onay için ODTÜ İnsan Denekleri Etik Kurulu'na gönderilmiş ve onların onayından sonra anket uygulanmıştır. Ankete katılım tamamen gönüllülük esasına dayalı olup, ankete başlamadan önce katılımcılardan bilgilendirilmiş onam alınmıştır. Katılımcılara ayrıca yanıtlarının anonim olacağı ve araştırmada kullanılacağı konusunda bilgi verildi.

Hedef örneklem üzerinde veri toplamadan önce bazı tanıdıklarla bir pilot anket yapılmıştır. Bu pilot çalışmanın örneklem büyüklüğü 27. Amaç, anketteki soruların anlaşılır olup olmadığını görmekti. Sorular çoğunlukla anlaşılır bulundu; bazı sorular daha net olması için biraz değiştirildi.

Tez için veriler anonim bir çevrimiçi anket yoluyla toplanmıştır. Pandemi nedeniyle toplama yönteminin çevrimiçi olması gerekiyordu. Yapılandırılmış ankette kolayda örnekleme kullanılmıştır. Anket ODTÜ Anketi üzerinden yapılmıştır. ODTÜ çalışanlarına, ilgili bölümlerin web sitelerinde verilen iş e-posta adresleri üzerinden e-posta gönderilmiştir. E-postada çalışmanın amacı, ne kadar süreceği ile ilgili bilgiler ve anket linki yer aldı. Veri toplama süresi 28 Şubat 2022 ile 12 Nisan 2022 arasındaydı.

Anket çalışması için ulaşılan 1572 kişiden sadece 130 kişi ankete yanıt verdi. Yanıt oranı %8.3 gibi oldukça düşük bir puan olarak hesaplanmıştır. Ankete katılan 130 kişiden 82'si, örneklemin yüzde 63,1'ini oluşturan kadın ve diğer yüzde 36,9'u 48 erkekti. Anket kapsayıcı olmasına rağmen, non-binary ve diğer cinsiyet grupları örneklemde temsil edilmemiştir. Yaş sorusunun ortalaması 38.29, standart sapması 10.34'tür. En yaşlı kişi 67, en küçüğü 21 yaşındaydı. Nüfusun %58.5'inin çocuğu yok, diğerlerinin ise bir ya da iki çocuğu var.

Örneklemin %40,6'sı aylık gelirlerinin beklendiği gibi 10.001-12.000 TL aralığında olduğunu belirtmiştir çünkü çalışanların memur olması ve gelirlerin çok fazla değişmemesi ancak diğer gelir grupları da örneklemde temsil edilmiş olup, buradaki seçeneklerin her biri örneklemde yer almıştır. Her seçenek en az bir kez seçilmiştir. Örneklemin %47,7'si gayrimenkul sahibi değildir.

Finansal okuryazarlık puanının ortalaması iki idi. Ankete katılanların yüzde 60,8'i finansal okuryazarlık ölçeğinde 3 sorudan 2'sini doğru aldı. %22.3'ü 3 soruyu da doğru bildi. Düzenli olarak tasarruf eden örneklemdeki 44 kişiden 39'u finansal okuryazarlık ölçeğinde 2 ve üzeri puan aldı.

Covid-19'un tasarruflara etkisi ile ilgili soruya verilen cevaplar üç kategoriye dağıtıldı. %18,9'u tasarruflarının olumsuz etkilendiğini belirtmiştir. %40,9'u tasarruflarını etkilemediğini, kalan %40,2'si ise daha fazla tasarruf ettiklerini söyledi.

Veri toplama işleminden sonra verilerle istatistiksel analizler yapmak için IBM SPSS v26 yazılımı kullanılmıştır. Örneklemin anlaşılabilmesi için öncelikle anketteki değişkenler için açıklayıcı istatistikler hesaplanmıştır. Kişilik özelliklerindeki boyutların ve Covid-19 risk algısı yapılarının sorularının doğru boyutlara yüklenip

yüklenmediğini görmek için doğrulayıcı faktör analizleri yapıldı. Maddelerin iç tutarlılığını sağlamak için her bir ölçek için güvenirlik Cronbach alfa yöntemi ile değerlendirilmiştir. Değişkenler arasındaki ilişkiyi görmek için değişkenler arası korelasyonlar hesaplandı. Son olarak, bağımsız değişkenlerin tasarruf etme niyetinin bağımlı değişkeni üzerindeki etkisini hesaplamak için aşamalı doğrusal regresyon yöntemi kullanılmıştır.

Bu çalışmada tutum, öznel norm, algılanan davranış kontrolü, kişilik özellikleri, finansal okuryazarlık ve Covid-19 risk algısının finansal tasarruf niyeti üzerindeki etkileri araştırılmıştır.

Tutum, öznel norm ve algılanan davranış kontrolü planlı davranış teorisinin yordayıcıları olarak, önerilen modelde, en büyük katsayıya sahip algılanan davranışsal kontrol ile regresyon denkleminde istatistiksel olarak anlamlı beta katsayıları ile çalıştı. Diğer bağlamlarda olduğu gibi, planlı davranış teorisinin Türkiye bağlamında da tasarruf davranışını tahmin etmek için uygun olduğunu kanıtlıyor.

Kişilik özellikleri ve Covid-19 risk algısı değişkenleri bu çalışmada tasarruf niyetlerinin istatistiksel olarak anlamlı yordayıcıları olarak bulunmamıştır. Bunların neden anlamlı çıkmadığının nedenleri ilgili tartışma konularıdır.

Beş büyük kişilik özelliği, finansal olarak tasarruf etme niyetini tahmin etmede anlamlı bir rol oynamasa da, bazı özelliklerin planlı davranış teorisi öğeleriyle istatistiksel olarak anlamlı korelasyonları vardı. Nevrotizm, algılanan davranışsal kontrol ile negatif bir ilişkiye sahipti, algılanan davranışsal kontrolün regresyon denkleminde en yüksek katsayıya sahip olduğu düşünüldüğünde, bu bulgu kayda değerdir. Uyumluluğun öznel norm ile istatistiksel olarak anlamlı pozitif bir ilişkisi olduğu bulundu.

Covid-19 risk algısının duygusal boyutu, regresyon denklemindeki yüksek katsayılı yordayıcılardan biri olan öznel norm ile istatistiksel olarak anlamlı bir ilişkiye sahiptir.

Bulgular, finansal okuryazarlığın finansal olarak tasarruf etme niyetinin önemli bir yordayıcısı olduğunu ve planlı davranış yapıları teorisi ile birlikte olumlu bir etkiye sahip olduğunu göstermektedir. Bu, finansal okuryazarlığın faydalı finansal davranış üzerindeki olumlu etkisine ilişkin güçlü literatüre katkıda bulunur.

Regresyonun üçüncü ve dördüncü adımında eklenen değişkenler, anlamlı katsayılar sağlamasa da, regresyon denklemi istatistiksel olarak anlamlı kalır ve finansal olarak tasarruf etme niyetinde makul miktarda varyasyonu açıklar.

Tezin sonuçları ve bulguları, literatürü daha da geliştirmek için tartışma noktaları ve geleceğe yönelik yollar sağlarken, Türkiye bağlamında finansal tasarruf davranışına ışık tutarak tasarruf davranışı literatürüne katkıda bulunmaktadır.

Çalışmadan elde edilen bulgular tartışma için çok fazla alan sağlıyor. İlk olarak, çalışma, planlı davranış teorisinin tasarruf niyeti için iyi bir yordayıcı olduğu konusundaki literatürü güçlendirmektedir. Bulgularımızda, teoride kullanılan üç yordayıcının tümünün, tasarruf etme niyetini önemli ölçüde olumlu etkilediği bulunmuştur. Bu, H2A, H2B ve H2C hipotezlerimizi doğrular ve literatürle uyumludur.

Algılanan davranışsal kontrol, regresyon denkleminde tasarruf etme niyetini tahmin etmede en yüksek katsayıya sahipti. Ayrıca, fiili tasarruf davranışı ile korelasyonlarda, algılanan davranışsal kontrol, hem tasarruf etme eylemi hem de tasarruf edilen gelir yüzdesi sorularında tasarruf davranışı ile en yüksek pozitif anlamlı korelasyona sahipti. Ajzen, makalelerinden birinde, bazen algılanan davranışsal kontrolün, bir davranışın tasarruf etme niyetinden daha iyi bir tahmin edicisi olduğunu onaylar.

Örneklem boyutunun küçük olması nedeniyle çalışmada yapısal eşitlik modelleme yöntemi kullanılamadığından finansal olarak tasarruf etme niyeti ile fiili finansal tasarruf davranışı arasındaki ilişkiyi analiz etmek mümkün olmamıştır. İlişkiler için korelasyonlar kontrol edildi ve tasarruf etme niyeti ile hem düzenli tasarruf eylemi hem de tasarruf edilen gelir yüzdesi arasında orta düzeyde pozitif anlamlı bir ilişki olduğu bulundu.

Beş büyük kişisel özelliğin, çalışmadaki tasarruf davranışının anlamlı yordayıcıları olmadığı bulundu. Vicdanlılık ve dışadönüklüğün tasarruf niyeti üzerinde olumlu bir etkiye sahip olması, uyumluluk, nevrotiklik ve deneyime açıklığın olumsuz bir ilişkiye sahip olması beklenir. Regresyon denkleminde katsayılar minimal ve anlamlı olmaktan uzak bulunmuştur. Bu literatürle uyumlu değildir, ancak bir bağlam farkı vardır. Literatürdeki çalışmaların örnekleri bu çalışmanın örnekleminden farklılık

göstermektedir ve Türkiye'de daha önce kişilik ve tasarruf ile ilgili çalışmaların hiçbiri yapılmamıştır. Kümülatif kültür, bireysel kişilik özelliklerinden daha büyük bir etki oynayabilir. Ayrıca, veriler bir hiperenflasyon ve bir pandemi döneminde toplanmıştır. Korkunç koşullar nedeniyle, bireysel faktörler tasarruf eyleminde daha küçük, bu durumda önemsiz, bir rol oynamış olabilir. Hipotezleri türetmek için kullanılan literatür, verilerini ABD ve enflasyonun neredeyse olmadığı ve daha bireyci kültürlerin gözlendiği gelişmiş Avrupa ülkelerinden toplamıştır. Çalışmamızda öznel normun anlamlı etkisine ilişkin bulgular da kolektivist kültürün iş başında olduğunun bir göstergesi olabilir.

Finansal okuryazarlığın tasarruf niyeti üzerinde olumlu etkisi olması H4'ü doğrulamaktadır. Bu literatürle uyumludur. Finansal okuryazarlığı yüksek kişilerin servet birikiminin daha iyi olduğu ve bu çalışmada kullanılan örneklemi sabit gelir düzeyine sahip memurlar oluşturmuştur, dolayısıyla pandeminin ve ekonomik koşulların bu kişilerin finansal olarak tasarruf etme niyetleri üzerindeki etkisi finansal okuryazarlığı daha az olanlara göre daha düşük olabilirdi.

Çalışmada finansal olarak tasarruf etme niyetinin bağımlı değişkeni üzerinde Covid-19 risk algısının anlamlı bir etkisi olmamıştır. Covid-19 risk algısının hem bilişsel hem de duygusal boyutunda katsayılar önemsiz bulunmuştur. Ankete ilişkin veriler, çoğu insanın aşılandığı pandeminin sonlarına doğru toplandı. Ayrıca hastalıkla birlikte yaşanan semptomlar hafiflemiş ve bu nedenle halk tarafından soğuk algınlığı veya grip gibi görülmeye başlanmıştır.

Kübler-Ross'un keder teorisi ışığında da açıklanabilir. (Kübler-Ross & Kessler, 2005) Keder, ölüm, boşanma, işini kaybetme vb. birçok olumsuz deneyimi tanımlamak için kullanılabilir. Bu durumda hastalanmak olarak değerlendirilebilir. Bu teori beş adımdan oluşmaktadır. İnkar, öfke, pazarlık, depresyon ve kabullenme. Araştırmanın veri toplama dönemi bu döngüde kabul etme dönemine denk gelmektedir. Bu dönemde insanlar durumla yaşamayı öğrendiler ve hatta buna uyum sağladılar, böylece insan ruhu ve davranışı üzerinde daha az etkisi olmuş olabilir. Veriler daha önceki dönemlerde toplanmış olsaydı, sonuçlar bu çalışmada bulunanlardan farklı ve anlamlı olabilirdi.

Bu araştırmadan elde edilen bulgular, yol boyunca karşılaşılan bazı sınırlamalar dikkate alınarak değerlendirilmelidir. Örneklemeden başlayarak, zaman ve kaynak yetersizliğinden dolayı kolay örnekleme kullanılmıştır. Ankete yalnızca Orta Doğu Teknik Üniversitesi çalışanları dahil edilmiştir. ODTÜ, ülkenin dört bir yanından çalışanları ve farklı geçmişleri olan çok çeşitli bir nüfusa sahip olsa da, tüm nüfusun temsil edilmesini sağlamanın bir yolu yoktu. (Feng ve diğerleri, 2020)

Pandemi nedeniyle yüz yüze veya elden veri toplanması çalışma için mümkün olmadı ve sadece çevrimiçi erişim ankete sınırlı sayıda katılımcıyla sonuçlandı. Anket, daha büyük bir örneklem büyüklüğü ile daha güvenilir sonuçlar verebilir.

Finansal olarak tasarruf etme niyeti ile fiili finansal tasarruf davranışı arasındaki istatistiksel ilişkiyi görmek için daha geniş bir örneklemle analiz yöntemi olarak yapısal eşitlik modellemesi kullanılabilir. Bu çalışmada örneklem büyüklüğü yapısal eşitlik modellemesi için uygun olmadığından kademeli doğrusal regresyon yöntemi kullanılmıştır.

Ankete verilen cevaplar kendi kendine rapor edilir ve bu nedenle kendi kendini onaylama ve onaylama önyargılarına karşı savunmasızdır. Katılımcı, bu sebeplerden veya sosyal olarak kabul edilebilir bulduklarından dolayı kendilerini daha olumlu veya sosyal olarak kabul edilebilir bir birey olarak tasvir edebilirdi.

Numune toplama konusundaki önyargı da dikkate alınmalıdır. Ankete sadece internet kullanıcıları yanıt vermiş olup, bu kişiler internet kullanmayanlardan farklılık göstermektedir. (Ogawa & Ida, 2015) Ayrıca ankete katılanların tümü, örneklemin çoğunluğunda daha yüksek bir eğitim düzeyine işaret eden üniversite çalışanlarıydı. Önemli ölçüde daha düşük eğitim seviyeleri de örneklemde idari çalışanlar aracılığıyla temsil edilmektedir.

Veri toplama pandeminin geç aşamalarında gerçekleşti. Çoğu insan zaten aşı olduğundan ve pandemi ile daha az semptomlarla yaşamayı öğrendiğinden, Kübler-Ross yas döngüsünün kabul aşamasındaydılar. Bu nedenle Covid-19 Risk Algısı, pandeminin önceki aşamalarında olduğu kadar önemli bir rol oynamamaktadır. Öfke ya da depresyon aşamalarında veri toplamak mümkün olsaydı, sonuçlar çok daha farklı olabilirdi.

Çalışma, zaman ve kaynak kısıtlamaları nedeniyle dar bir kapsamdaydı; sonuçların Türkiye'de veya başka bir ülkede genel nüfus üzerinde tekrarlanıp tekrarlanmadığını görmek için gelecekte araştırmalar yapılabilir. Covid-19 risk algısının önemi konusunda bir son kullanma tarihi olabilir, ancak kişilik özellikleri ve finansal okuryazarlık yeniden test edilebilir.

Araştırılması gereken bir diğer değişken de literatürde yer alan ülkelerin kültürlerinin daha çok ABD ve gelişmiş Avrupa ülkelerinden gelen eserlerden oluşması olabilir. Hofstede'nin kültürler boyutu teorisine göre bu ülkelerin hemen hepsi bireyci kültürlere sahiptir. (1980) Türkiye, literatürde yaygın olan bu ülkelere kıyasla daha kolektivist bir kültüre sahiptir, bu nedenle kişilik özellikleri gibi bireysellikle ilgili değişkenler için Türkiye bağlamında finansal tasarruf niyeti üzerinde önemli bir rol oynamamış olabilir. Kültürlerin boyutlarının, özellikle bireysellik ve kolektivitenin, tasarruf davranışını açıklamada rol oynayıp oynamadığını görmek için uluslararası bir örneklemle bir anket yapılabilir.

Kişilik özelliklerinin neden tasarruf etme niyetinin istatistiksel olarak anlamlı yordayıcıları olmadığını keşfetmek için nitel araştırmalar yapılabilir. Önemli ilişki gösteren diğer örneklerden kültürel bir farklılık mı yoksa daha özelliklerden etkilenmeden insanları tasarruf etmekten alıkoyan sosyo-ekonomik faktörler mi olduğu bağlamı anlamada yardımcı olabilir.

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