



FINANCIAL WELL-BEING AND LIFE SATISFACTION OF INDIVIDUALS DURING THE COVID-19 OUTBREAK

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ABSTRACT

Purpose - This study aims to identify how factors related to financial health, financial ignorance, future prospects, emotional constructs, mental accounting, financial crisis, and household consumptions affect adult population's financial well-being and life satisfaction in Turkey during an ongoing pandemic.

Methodology - The data were collected through an online survey between May 26 and June 15, 2020. The sample of the study consisted of 1333 participants (58.7% women; 41.3% men). Descriptive statistics were calculated regarding the socio-economic variables (frequency, percentage, average, standard deviation, maximum, minimum). Then independent groups *t*-test analyses were conducted to compare the means of the scales by gender. Finally, Linear Regression Model were used to compare the effects of independent variables on three dependent variables (financial well-being measured as financial security/anxiety and life satisfaction).

Findings- The result shows that participants were financially coping during the COVID-19 outbreak. There was a significant difference when comparing mean financial health, spending and saving scores between men and women. This study concluded that financial ignorance, financial health, perceptions of the household's future economic outlook and national economic situation, emotional constructs and gender were significantly related to financial well-being. Furthermore, financial health, financial security, perceptions of the future economic outlook of the household economic situation, mental accounting, changes in consumption, emotional constructs, gender, and marital status were predicted life satisfaction.

Conclusion- The findings would be useful for policy makers to maintain the parallel expansion of financial, psychological and welfare measures to improve people's financial well-being and life satisfaction and to strengthen the subjective well-being of individuals to fight against COVID-19. This research will help government and policymakers to maintain their economic and psychological policies and measures to provide relief to individuals during this current and post COVID-19 recovery knowing the psychological and financial situation of the general public.

Keywords: Financial health, financial ignorance, financial well-being, financial anxiety, financial security, life satisfaction.

JEL Codes: A14, D1, D9

1. INTRODUCTION

The COVID-19 outbreak was declared an international public health emergency on January 30, 2020, by the World Health Organization (WHO), causing a great effect on people's lives, families, communities, businesses and economies (Dubey et al., 2020; Mahajan, 2020). This pandemic is the defining global health crisis of our time and the greatest challenge we have faced since World War Two (UNDP-Turkey 2020). As the coronavirus outbreak rapidly spread around the world, it is causing widespread concern, anxiety, anger, depression, panic, insecurity, fear and stress, feelings of loss, and social withdrawal all of which are natural and normal reactions to the changing and uncertain situation that everyone finds themselves in (Brooks et al., 2020; Euart et al., 2020; Kulkarni and Bharati, 2020; Poudel and Subedi, 2020; WHO, 2020; Xiang et al., 2020).

To prevent the spread of this pandemic, governments have taken various measures such as social distancing, lockdowns, closing schools, universities, places of religious worship, and public utilities indefinitely, travel restrictions and home quarantines, imply a slowdown or even a complete stop in production and consumption activities for indefinite time, crumbling markets and potentially leading to the shutdown of businesses, sending millions of employee home (Agrawal et al., 2020; Goodell, 2020; Mahajan, 2020; Nelson et al., 2020). In Turkey, around 10% of both women and men reported quitting their jobs due to health risks (UNDP-Turkey, 2020). According to ECLAC, more than 30 million people could fall into poverty without active policies to protect or substitute income flows to low-income people. This spotlight addresses financial strain as a specific challenge for countries and individuals (Hevia and Neumeyer, 2020; Mogaji, 2020). Moreover, financial difficulty, fear, anxiety and panic has changed usual consumption patterns and created market anomalies; leading to the postponement of consumers' spending decisions (Boost and Meier, 2017; Kaytaz and Gul, 2014; Kulkarni and Bharati, 2020; McKibbin and Fernando, 2020). Panic drives people not to spend unless it is urgent or significantly reduce any unplanned purchase since people tend to save money for their health emergencies (Alonso et al., 2015; Baldwin and Tomiura, 2020; Barua 2020; Hsu et al., 2017). In some countries like US, Canada, UK more consumers reported reducing spending than increasing spending. In other countries like South America, Indonesia, Brazil, more consumers reported increasing spending than decreased (Euart et al., 2020). On the other hand, higher uncertainty leads to higher savings and changes in financial planning (Dietrich et al., 2020). Growing concern related to COVID-19 as individuals worry about immediate health and secondary economic effects (Nelson et al., 2020). For example, Mahajan (2020) concluded that individuals were financially coping during COVID-19 outbreak, and they have liquid savings to manage things for the next 4-5 months. However, the majority of respondents were worried about their financial health. If lockdown continues, it might affect their daily needs as well.

The priority is, of course, to save lives. Nevertheless, the required containment measures to restrict the spread of the coronavirus are causing a dramatic decline in economic activity (Mahajan, 2020). Thus, a global health crisis becomes a global economic crisis (Evans and Over, 2020) and thrust the world into an "economic war." Besides the cost of life and the deep health crisis of the COVID-19 outbreak, the world is sparking fears an impending economic recession and financial uncertainty that will severely impact the financial well-being of large parts of households (Barua, 2020; Evans and Over, 2020; Fujiwara et al., 2020; Nicola et al., 2020; McKibbin and Fernando, 2020; Poudel and Subedi, 2020). The penalty of job or income loss may be devastating for individuals and their families, yet they still have fixed costs to pay and families to feed. Individuals could feel helpless when they are unemployed, financially coping, unable to make ends meet or experience financial emergencies and feel financial insecurity (Mogaji, 2020; Van Aardt et al., 2009). Household financial decision-makers around the world reported their financial situations and countries' current economies were weak, decreases in income and saving, and fear of unemployment and job security concerns held savings to cover less than four months' worth of expenses due to COVID-19 outbreak (Agrawal et al., 2020; Dietrich et al., 2020; Dubey et al., 2020; Euart et al., 2020; Nelson et al., 2020; Ho et al., 2020; WHO, 2020). This transitory no more income or fall in income, coupled with the uncertain situation, will significantly decrease financial well-being and life satisfaction (Hevia and Neumeyer, 2020). Therefore, this study aims to identify how factors related to financial health, financial ignorance, future prospects, emotional constructs, mental accounting, financial crisis, and household consumptions affect adult population's financial well-being and life satisfaction in Turkey during an ongoing pandemic. The following part of the study provides literature on financial well-being and life satisfaction.

2. LITERATURE REVIEW

2.1. Financial Well-Being

Researchers suggested that mental and psychological state were very important in influencing financial well-being (Simon, 1986; Slovic et al., 2005; Thaler, 1994; Tversky and Kahneman, 1974) and emotional constructs play a major role in financial well-being (Hammond, 2000; Loewenstein, 2000; Mellers and McGraw, 2001; Stern, 2009; Voon and Voon, 2012). With COVID-19 rapidly changing the economy and the way we live, work and consumer behavior, it is no wonder there is an increased level of financial anxiety (Fujiwara et al., 2020). Furthermore, while everyone is facing unprecedented challenges, women were more likely affected the economic, social and psychological consequences of COVID-19 than men. Women have experienced higher loss of jobs and unpaid leave from work (Kalaylıoğlu et al., 2020; UN Women 2020). In Turkey, overall, a higher proportion of men (54%) report employment disruption compared to women (32%) due to the pandemic. Women were nearly twice as likely to switch to working from home compared to men (UNDP-Turkey, 2020).

One of the most important dimensions of financial well-being is how people subjectively feel about their financial situation (Strömbäck et al., 2017). As Rolls (1999) explains, positive feelings improve individuals' ability to problem-solve and make effective decisions and there was a significant negative relationship between stress and financial well-being (Park, 2020). Kim and Garman

(2003) included the individual's perception of their ability to meet expenses and a propensity to worry about debt among other factors as a subjective definition of financial well-being. Thus, financial well-being implies having financial security and financial freedom of choice, in the present and the future (CFPB, 2015).

2.2. Life Satisfaction

Earlier studies indicated that financial well-being is a component of life satisfaction and increased financial well-being can be associated with an increase in life satisfaction (see Gerrans et al., 2014; Joo, 2008; Netemeyer et al., 2018). People are happier when they are financially secure (O'Neill et al., 2005). The existing literature concluded that besides financial well-being and financial situation (e.g. income) there are many different factors that contribute to life satisfaction. For example, being employed and healthy have been shown to influence greater life satisfaction (Dolan et al., 2008). A major study by University College London (UCL) surveyed 74.000 participants at the start of the lockdown, asking how adults feel about the lockdown, feelings of well-being, and psychological health. They reported that levels of life satisfaction were lower than at the same time last year (Fujiwara et al. 2020). Previous research also has shown that life events such as losing or changing jobs, reduction in hours of employment, death and illness can have effects on financial well-being and life satisfaction (Luhmann et al., 2012). Studies confirmed that lower scores in all well-being measures and higher anxiety and psychological distress during the COVID-19 outbreak. COVID-19 was associated with a statistically significant decrease in life satisfaction and higher levels of anxiety and greater psychological distress (Brooks et al., 2020; Dietrich et al., 2020; Poudel and Subedi, 2020; Xiang et al., 2020). COVID-19 impacted people's subjective well-being levels negatively included health impacts (e.g. risk and fear of being infected by COVID-19), economic impacts (e.g. job and income loss, concerns about the future economy), and social impacts (e.g. self-isolation, working from home). Moreover, the negative relationship between COVID-19 and life satisfaction was statistically significantly worse for women than for men (Agrawal et al., 2020; Fujiwara et al., 2020).

COVID-19 outbreak impact on individuals, families and economies in such a deeply negative way. Thus, it is interesting to assess its impact on financial well-being and life satisfaction at an individual level especially for emerging economies. During a COVID-19 outbreak, the economic conditions become very uncertain and depressing, as there is neither enough information nor a definitive treatment to the COVID-19 at hand. In this study, as well as demographic characteristics, future prospects, financial crisis, emotional constructs, mental accounting, financial ignorance and financial health were considered as stressful life occurrences, and they have important predictors of financial well-being and life satisfaction during periods of COVID-19 outbreak.

3. DATA AND METHODOLOGY

3.1. Data Collection and Sample

Data were collected from the participants through an online survey between May 26 and June 15, 2020 using convenience sampling method. The survey was developed using the free software Google Forms. Participants were contacted via email and telephone, a link to a self-report questionnaire was sent by e-mail or made public on other online platforms (Facebook and WhatsApp). Participants could contact the researchers via email or phone at any time.

Consent to participate in this study was obtained from each respondent and the study consists of individuals of 18 years and older living in Turkey. According to Turkey's 2019 address-based population registration system, the population that is 18 years old and above is 56.645.598 (TUIK, 2020). The sample for this study totaled 1333 participants in different regions of the country. Turkey recorded the first case of the disease on March 11, 2020. Since then, the cases have increased steadily and significantly. As of February 16, 2021, according to the Ministry of Health (2021), a total of 2.602.034 COVID-19 cases, 2.489.624 recovered, and 27.652 deaths have been reported. Table 1 presents the sample profile. More than half (58.7%) of the participants were women and about 41.3 % of them were men. The average age of the participants was 39.7 ($SD=10.49$) years. 65.7% of the respondents in the sample indicated being married. Further, 58.4% of the participants had a college degree and 36.8% of the participants were currently working at home during the Covid-19 pandemic. The average monthly income for respondents in the sample was ₺7812.56 (Turkish Lira, TL) ($SD=7121.91$) (1 USD = 6.95 TL in June 2020). The sample may not be representative to of the general population. When comparing to this sample profile with the population of Turkey (49.9% women, 50.1% men; $M=32$ age; 47.4% married, 52.6% single; 56% less than high school, 44% high school or more; monthly income $M=5779,08$ TL) (TUIK 2020) demographic characteristics of sample are not similar to the overall sample, but it is still meaningful sample to represent various socioeconomic backgrounds (Table 1).

Table 1: Distribution of the Participants by Socioeconomic Variables

Variables and Categories		Full sample (N=1333)		Women (n=782)		Men (n=551)	
		N	%	n	%	n	%
Gender	Women	782	58.7				
	Men	551	41.3				
Marital Status	Married	876	65.7	458	34.3	418	31.4
	Single	457	34.3	324	24.3	133	10.0
Working status during the COVID-19 outbreak	Always at home	490	36.8	344	25.8	146	11.0
	Always at workplace	164	12.3	75	5.6	89	6.7
	Flexible	361	27.1	162	12.2	199	14.9
	Not working	309	23.2	196	14.7	113	8.5
	Other	9	.7	5	.4	4	.3
Education	Literate/primary sch	8	.6	5	.4	3	.2
	Middle school	9	.7	3	.2	6	.5
	High school	67	5.0	39	2.9	28	2.1
	Associate degree	74	5.6	34	2.6	40	3.0
	Undergraduate	778	58.4	487	36.5	291	21.8
	Master degree	250	18.8	130	9.8	120	9.0
	Doctorate	147	11.0	84	6.3	63	4.7
	Min/Max	M	SD	M	SD	M	SD
Age	18-89	39.67	10.50	38.6	10.48	41.2	10.33
Monthly inc.(TL)	0-250000	10479,510	75842.50	8130,87	30873.71	13626,32	110358.42
Perceived income	1-5	3.13	.858	3.06	.83	3.22	.88

3.2. Measurement of Variables

3.2.1. Dependent Variables

Financial well-being: In this study, we measured subjective financial well-being using two separate scales (Barrafrem et al., 2020b; Strömbäck et al., 2017): The Financial Anxiety Scale (Fünfgeld and Wang, 2009; Strömbäck et al., 2017) and the Financial Security Scale (Strömbäck et al., 2017).

The Financial anxiety scale (FAS): Financial anxiety has been defined as a subjective feeling that individuals have an uneasy and unhealthy attitude toward engaging with, and managing their finances effectively (Burchell, 2003; Shapiro and Burchell, 2012). To measure anxiety related to financial decisions, we adopted four items from Fünfgeld and Wang (2009). We asked respondents to indicate, on a five-point Likert scale where 1 indicates "strongly disagree" and 5 indicates "strongly agree," their agreement or disagreement with four statements. A sample item is "After making a decision, I am anxious whether I was right or wrong." A higher FAS score indicated that the individual felt more anxiety related to financial matters.

The Financial security scale (FSS): Financial security indicates a perceived security in one's current and future financial situation. The three items included measuring financial security. Individuals were asked to state to what degree they agreed with three statements on a five-point Likert scale where 1 indicates "strongly disagree" and 5 indicates "strongly agree." A sample item is "I feel secure in my current financial situation." A higher FSS score indicated that the individual experienced a higher level of security concerning his/her financial situation.

Cronbach's alpha was calculated and showed a reliability coefficient of .69 (FAS) and .85 (FSS). The results of Confirmatory Factor Analysis (CFA), based on maximum likelihood estimation, confirmed that the two scales for subjective financial well-being measured different underlying constructs (Chi-Square =144;673: $p < .01$; GFI=.97; AGFI=.94; CFI=.96; TLI=.93; RMSE=.087; RMR=.07). A person can feel quite comfortable with their financial situation but still feel anxiety about financial matters (e.g. Lind et al. 2020). We define higher subjective financial well-being as high financial security values and low values of financial anxiety (Barrafrem et al. 2020b).

Satisfaction with life scale (SWLS): The life satisfaction is a conscious cognitive judgment of one's life in which the criteria for judgment are up to the person (Pavot and Diener, 1993). It was measured by a commonly used scale developed by Diener et al. (1985). This scale was developed as a measure of the critical component of subjective well-being. A sample item is, "In most ways my life is close to my ideal." Responses were included "strongly disagree" (1) to "strongly agree" (5). Higher scores indicate a higher level of satisfaction with their life. The total satisfaction with life score for our sample ranged from 5 to 25. Cronbach alpha internal consistency reliability was .88 for this scale. The results of CFA, based on maximum likelihood estimation, results provide sufficient evidence that the scale is one-dimensional (Chi-Square =37.572: $p < .01$; GFI=.99; AGFI=.95; CFI=.99; TLI=.97; RMSEA=.093; RMR=.019).

3.2.2. Independent Variables

Financial ignorance: Financial Homo Ignorans (FHI) scale summarizes individual differences in financial behavioral ignorance. Behavioral ignorance was defined as a tendency to neglect relevant aspects of the decisions (Barrafrem et al, 2020a). To measure financial ignorance, we used the Turkish version of the Financial Homo Ignorans scale developed by Barrafrem et al., (2020a). The instrument measures four different types of ignorance tendencies: i) decision avoidance (e.g. saving money), ii) information avoidance (e.g. the total debt left to pay), iii) aggregation bias (e.g. how multiple small loans become large debts), and iv) motivated reasoning (e.g. focus only on the positive aspects of a specific loan neglecting the fine print (Barrafrem et al., 2020a). Individuals were asked to state to what degree they agreed with twelve statements on a five-point Likert scale ranging from "1= strongly disagree" to "5 = strongly agree." Sample items include: "I avoid making decisions about my current financial situation," "I would rather not know how much I spent last month." According to the results of CFA, based on maximum likelihood estimation, there is strong validity evidence for the four-component structure. (Chi-Square =316.487: $p < .01$; GFI=.96; AGFI=.94; CFI=.96; TLI=.95; RMSEA=.063; RMR=.078). The Cronbach's alpha of the complete scale is .83. pointing to the high reliability of the scale. In the current study internal consistency with the Cronbach's α values were .86 for decision avoidance, .90 for information avoidance, .82 for aggregation bias, .59 for motivated reasoning.

Financial health: Financial health was examined by using eight indicators of financial health prescribed by Financial Health Network, Chicago 2020 and Mahajan, 2020. FHNC has defined four components of financial health: Spend, Save, Borrow, and Plan. These components reflect individuals' daily financial activities. The FHNC Financial Health Score provides a holistic, moment-in-time snapshot of an individual's financial health. The score is based on eight multiple-choice survey questions that correspond to FHNC's eight financial health indicators. Every individual who responds to the eight questions outlined in the survey guide will receive one FHNC Financial Health Score and four sub-scores that align with the four components of financial health (Spend, Save, Borrow, Plan). Financial health scores and sub-scores below 40 are considered "Vulnerable," scores from 40 to 79 are considered "Coping," and scores 80 and above are considered "Healthy." According to the results of CFA, based on maximum likelihood estimation, there are strong validity evidence for the 4-component structure (Chi-Square =77.156: $p < .01$; GFI=.99; AGFI=.98; CFI=.89; TLI=.79; RMSEA=.058; RMR=.098). Cronbach alpha internal consistency reliability was .71 for this scale.

Assess the near future economic situation; Assess the near future economic situation measures individuals' expectations for the future changes in the economic situation using three questions asking about their opinion on how the COVID-19 outbreak will have affected: (1) one's household economic situation, (2) country's economic situation, and (3) world's economic situation in six months from now compared to today (Barrafrem et al., 2020a). Respondents answered on a five-point Likert scale ranging from "it will be a lot worse than today=1" to "it will be a lot better than today=5." Since there are 3 items in this variable, CFA was not performed (Çokluk et al., 2010). As a result of the exploratory factor analysis (EFA), it was determined that it is a one-dimensional structure. EFA results showed that the first eigenvalue was 2,258 and explained 75% of the total variance. However, in the analyzes, three items within the scope of the future variable were considered separately. The Cronbach's alpha in our study was .83.

Emotional constructs: For the emotional factor, we adopted three items from Voon and Voon (2012) including uneasiness, anxiety and fear. Participants were asked to "Here are some statements about the COVID-19 outbreak. To what extent do you agree with each? "You feel uneasy," "You feel worried or anxious," "You feel fearful" with a five-point Likert scale ranging from "1=Very much

disagree” to “5=Very much agree.” The lower score (1) indicates “not affected by COVID-19 outbreak” and the highest score (5) denotes “very much affected.”

Mental accounting: Mental accounting refers to one’s ability to subjectively frame transactions in their mind involving current and expected income decline or wealth. It was measured by the “Relative to before the COVID-19 outbreak, did any change happen to you on the following aspects? “Future expected or perceived income,” Current income” and “Wealth” question, with a five-point response ranging from “Reduced=1” to “Increased=5” developed by Voon and Voon (2012). The higher score indicating higher income (and wealth). A score of 3 means “no change.” The results of CFA, based on maximum likelihood estimation, on emotional structure and mental accounting variables measured with the same scale provide strong evidence for the two-component structure (Chi-Square =53.555: $p < .01$; GFI=.99; AGFI=.97; CFI=.99; TLI=.98; RMSEA=.065; RMR=.032). In the current study internal consistency with the Cronbach’s α values were .89 for the emotional construct, .76 for mental accounting.

Financial crisis: To measure the financial crisis at an individual level, the current study used three items, two of the items were borrowed from Voon and Voon (2012). Financial crisis including, Employment decline, Retrenchment/Layoff, and Unpaid leave. Participants were asked to indicate that on a five-point Likert scale “1= No influence” to “5 = Large influence” to what degree they were affected by the above items when evaluating the COVID-19 outbreak. The higher the score, the more affected one is. Since there are 3 items in the financial crisis variable, CFA was not performed (Çokluk et al., 2010). As a result of the EFA, it was determined that it is a one-dimensional structure. The factor loading of each item ranged between .930 and .963. All 3 items had positive loading on the factor. EFA results showed that the first eigenvalue was 2,659 and explained 89% of the total variance. In our study, Cronbach’s alpha was .94.

Household consumption: To measure how the COVID-19 outbreak affected household consumption, we adopted an item from Voon and Voon (2012). Participants were asked to indicate that on a five-point Likert scale ranged from 1= reduced to 5 = increased, compared to before the COVID-19 outbreak, what degree did their current consumption change. The higher the score, the more their consumption was affected.

Socio-economic and subjective variables: This study involved information about the participants’ characteristics such as age, gender, education level, marital status, working status during COVID-19 outbreak, household’s monthly income and perceived income. These characteristics were selected according to research literature and their potential effects on the results. Descriptive statistics on dependent variables were clustered according to personal characteristics.

Research Questions

Based on previous researches, we approached this study with several guiding research objectives:

Gender affect

1. to determine difference between women's and men’s financial anxiety, financial security, life satisfaction, financial ignorance, financial health, future prospects, emotional construct, mental accounting, financial crisis and household consumption scores,

Financial security underlying variables

2. to determine whether financial health, financial ignorance, future prospects, emotional construct, mental accounting, financial crisis, household consumptions, perceived income, and socioeconomic variables are associated with financial security,

Financial anxiety underlying variables

3. to determine whether financial health, financial ignorance, future prospects, emotional construct, mental accounting, financial crisis, household consumptions, perceived income, and socioeconomic variables are associated with financial anxiety,

Life Satisfaction underlying variables

4. to determine whether financial security, financial anxiety, financial health, financial ignorance, future prospects, emotional construct, mental accounting, financial crisis, household consumptions, perceived income, and socioeconomic variables associated with life satisfaction.

3.3. Data Analysis

Descriptive statistics were calculated regarding the socio-economic variables (frequency, percentage, average, standard deviation, maximum, minimum). To find an answer to the first research question, independent groups *t*-test analyses were conducted to compare the means of the scales by gender. Before the independent group’s *t*-test analysis, the data fit for the normal distribution

and the equality of the variances of the gender groups were checked. According to the analysis results, it was determined that the scores for men and women for all independent variables were normally distributed. The Levene test examined the homogeneity of group variances. While calculating the t values, the method following Levene test results was used (Kirk, 2008; Pituch and Stevens, 2016).

Linear regression model and enter method were used to answer the second, third and fourth research problem. To compare the effects of independent variables on three dependent variables (financial well-being measured as financial security/anxiety and life satisfaction), all independent variables were taken into the regression equation simultaneously. For regression analysis, it was checked whether the data provided the regression analysis assumptions. For the test of assumptions, correlations between variables, Mahalanobis distances for variables, variance influence factor values for variables, Durbin-Watson statistics were examined. As a result of the analysis, the data provide multivariate normality. There is no multicollinearity between variables. It was determined that there is no autocorrelation related to the variables and there is a linear relationship between the variables (Çokluk et al., 2010; Kirk, 2008).

4. FINDINGS AND DISCUSSIONS

Bivariate comparisons by gender for dependent and independent variables are summarized in Table 2. Averages and standard deviations are given separately for men and women and the full sample. The participants' average score was higher on the financial anxiety ($M = 3.14$; $SD = .76$). Women ($M=3.21$; $SD=.72$) respondents were more worry about their financial situation than men ($M=3.05$; $SD=.80$) ($p<.01$) during on ongoing pandemic. As expected, this paper shows that participants' financial anxiety was found to be higher during the COVID-19 break and is in line with prior studies (Lind et al. 2020). Women felt more anxious about financial matters than men.

The participants' average financial health scores were $M = 60.43$ ($SD = 18.61$) (with spend score 71, save score 49, borrow score 76 and plan score 46). There was a significant difference when comparing mean financial health, spending and saving scores between men ($FH= 59.31$, $Spend=69.83$, $Save=46.22$) and women ($FH=62.02$, $Spend=73.82$, $Save=51.97$). Regarding participants' financial health, we found that individuals' overall financial health based on FHNC' score falls under the category of "financially coping." Individuals with scores in this range report healthy outcomes across some, but not all of the eight financial health indicators. It seems that individuals having financial troubles within this tough time. On the other hand, the average score in spend indicator is 71, which indicates that an individual's ability to pay nearly all of their bills on time and spend little less than income. The average score in save indicator (liquid savings and long-term savings) is 49 which indicates that inconsistent with conclusions drawn in prior research (see Baldwin and Tomiura, 2020; Barua, 2020; Kulkarni and Bharati 2020; Mahajan, 2020; Mogaji, 2020), participants did not have satisfactory savings for affording to cover unexpected expense during this tough time, like income or job loss. The average score in borrow indicator is 76, which indicates that having a manageable debt load and ability to credit card payments with little late fees. The average score in the plan or budget indicator is 46, which is the prime reason with saving indicator for getting financial health score in "financially coping" category. Having appropriate insurance allows individuals to be resilient in the face of unexpected expenses, such as medical emergency. Respondents have scored lower in this category, and another component of this indicator i.e plan ahead financially. It indicates that individuals were less future-oriented and interested in improving their current financial situation. Women have significantly displayed less healthy financial behavior on the overall index, spending and saving than men. This result is somewhat consistent with Mahajan' (2020) results. This also explains why although some literature indicates consumers follow 'saving for emergency' during the crisis, participants reported that their daily consumptions increased during the COVID-19 outbreak.

Results of the bivariate analysis test show that expectations about the future economic situation were very pessimistic. As shown in Table 2, the respondents believed that the economic situation will get worse soon than it is now. Women were more likely to believe that economic situation of their country ($M = 1.76$; $SD = .79$) and the world ($M=1.76$; $SD = .72$) will get worse soon than it is now than their counterparts. Literature suggested that individuals who were more pessimistic about their lives were probably more likely to worry about the future (Strömbäck et al., 2017). Our results concluded that expectations about the future economic situation were very pessimistic. Consistent with previous research (see Barraffrem et al., 2020b), participants were more likely to believe that future prospects at the household, national and global economic level would get worse in the future than it is now. Moreover, women reported significantly more pessimistic opinions about their country's economic situation and the world than their counterparts. According to Euart et al.'s research report (2020) also respondents in most countries thought their own and country' economic situation would grow worse.

Participants also reported that their psychological state (uneasiness, anxiety and fear) affected ($M = 3.86$; $SD = .73$) and their mental accounting (expected income etc.) changed ($M = 2.53$; $SD = .65$) during the COVID-19 outbreak. Women' psychological

state ($M=3.93$; $SD=.73$) and mental accounting ($M=2.57$; $SD=.65$) were more affected during the COVID-19 outbreak than men (EC, $M=3.76$; $SD=.71$; MA, $M=2.49$; $SD=.65$). Consistent with previous research (see UNDP-Turkey, 2020), women respondents' average score was higher on psychological state and mental accounting.

The participants reported that their daily consumptions increased during the COVID-19 outbreak ($M = 3.47$; $SD = .88$). Women respondents ($M=3.55$; $SD=.87$) reported significantly higher levels of daily consumptions than their counterparts ($M=3.35$; $SD=.89$) during on ongoing pandemic. Respondent' average score was higher on the financial crisis (employment decline etc.) ($M = 3.19$; $SD = 1.31$) during the COVID-19 outbreak. Concerning financial behavioral ignorance, we found that participants have the approximately average score on the FHI. They tend to ignore some aspects of decision-making ($M = 2.62$; $SD=.68$) during this tough time. Participants experience an average security level ($M = 2.52$; $SD = .99$) concerning their financial situation during an ongoing pandemic. Respondents also have average score ($M = 2.74$; $SD = .88$) on the life satisfaction during the COVID-19 outbreak. We did not find any gender differences in financial security, life satisfaction, financial ignorance and financial crisis (Table 2).

Table 2: Means and Standard Deviations for Dependent and Independent Variables by Gender

Variables	Full sample (N=1333)			Women (n = 782)	Men (n= 551)	Levene F	Test Statistic t
	Min-max	M (SD)	M (SD)	M (SD)			
Financial anxiety	1-5	3.14 (.76)	3.21 (.72)	3.05 (.80)	$p<.01$	3.788***	
Financial security	1-5	2.52 (.99)	2.52 (.96)	2.52 (1.03)	$p>.01$	0.111	
Satisfaction with life	1-5	2.74 (.88)	2.78 (.86)	2.69 (.89)	$p>.05$	1.876	
Financial ignorance	1-5	2.62 (.68)	2.62 (.67)	2.63 (.69)	$p>.05$	-0.298	
Financial health	10.6-100	60.43 (18.61)	59.31 (18.34)	62.02 (18.88)	$p>.05$	-2.625**	
Spend	17.5-100	71.48 (26.69)	69.83 (26.04)	73.82 (27.43)	$p>.05$	-2.693**	
Save	12.5-100	48.60 (21.39)	46.22 (20.86)	51.97 (21.68)	$p>.05$	-4.880***	
Borrow	12.5-100	75.62 (24.61)	75.50 (25.11)	75.80 (23.90)	$p>.05$	-0.219	
Plan	0-100	46.01 (31.09)	45.68 (31.34)	46.48 (30.75)	$p>.05$	-0.461	
Future of household	1-5	2.20 (0.89)	2.17 (.84)	2.23 (.96)	$p<.01$	-1.136	
Future of country	1-5	1.83 (0.88)	1.76 (.79)	1.93 (.99)	$p<.01$	-3.473 **	
Future of world	1-5	1.82 (0.76)	1.76 (.72)	1.92 (.81)	$p>.05$	-3.736***	
Emotional construct	1-5	3.86 (.73)	3.93 (.73)	3.76 (.71)	$p>.05$	4.045***	
Mental accounting	1-5	2.53 (.65)	2.57 (.65)	2.49 (.65)	$p>.05$	2.194*	
Financial crisis	1-5	3.19 (1.31)	3.14 (1.31)	3.25 (1.31)	$p>.05$	-1.431	
Household consumption	1-5	3.47 (.88)	3.55 (.87)	3.35 (.89)	$P>0.05$	3.939***	

Note: * $p<.05$; ** $p<.01$; *** $p<.001$

4.1. Multivariate Results

Within the research scope, the linear regression model was used to determine the relationship between psychological, economic and socio-economic variables for the significant effects on financial security, financial anxiety and life satisfaction during the COVID-19 outbreak. Table 3 summarizes the linear regression analysis results for financial security, financial anxiety and life satisfaction. As seen in Table 3, financial health, financial ignorance, future prospect at the household and national economic level, mental accounting and perceived income were positively related to financial security. However, gender and emotional construct

seem to be negatively related to financial security. According to this result, participants with higher levels of financial health, financial ignorance, the optimistic future prospect for household' and country' economic situation, mental accounting and perceived income had significantly higher financial security levels. However, women participants with higher levels of negative emotional construct had significantly lower levels of financial security. When the R^2 value is examined, it is seen that independent variables included in the regression equation can explain 28% of the variability in financial security. If the R^2 value is evaluated as the effect size, independent variables included in the regression equation have a high effect. It can be said that independent variables have practical significance (Table 3).

With regard to financial anxiety, as seen in Table 3, financial ignorance, emotional construct and financial crisis were positively associated with financial anxiety. On the other hand, financial health, future prospect at the household and national economic level and gender were appeared to be negatively associated with financial anxiety. According to this result, participants with higher levels of the negative emotional construct, financial crisis and financial ignorance had significantly higher financial anxiety levels. However, participants with higher levels of financial health, optimistic view of household' and country' economic situation and women had significantly lower financial anxiety levels. When the R^2 value is examined, it is seen that independent variables included in the regression equation can explain 30% of the variability in financial anxiety. If the R^2 value is evaluated as the effect size, independent variables included in the regression equation have a high effect. It can be said that independent variables have practical significance (Table 3).

A possible explanation of this result is that participants with financially healthy knowing how to build financial security now and in the future are not worried about their financial situation. However, inconsistent with an earlier study (Barrafrem et al., 2020a) financial behavioral ignorance was positively related to financial security/anxiety. Participants with higher financial behavioral ignorance feel more secure in their financial situation and worry more about it. Previous studies suggested that individuals who score high on behavioral ignorance were worse at managing their finance, and had lower financial well-being (due to the ignorance of relevant decision aspects). Since, ignorant individuals might perceive their situation to be better than it is (see Barrafrem et al., 2020a). Our results support these claims by showing that participants who were scoring higher financial behavioral ignorance have higher financial security than those were scoring lower financial behavioral ignorance. However, Barrafrem et al. (2020b) reported that lower financial ignorance was related to higher financial security and lower financial anxiety.

Depressed individuals were more prone to pessimistic thoughts about the future and suffer to a greater extent from pessimism bias than non-depressed individuals (Strunk et al., 2006; Strömbäck et al., 2017). We found that individuals who report less gloomy prospects for the future household's economic situation report higher financial security and lower financial anxiety. Also, individuals who have more optimistic views on the nation's economy displayed more financial security and less financial anxiety. This result consistent with previous literature showing that optimism was associated with financial well-being (Barrafrem et al., 2020b; Diener et al., 2010; Gutter and Copur, 2011; Peterson et al., 1988; Scheier and Carver, 2003). More optimistic individuals displayed better financial behavior, were less anxious about financial issues, and were more confident about their financial situation. The perceptions of the future global economic situation's changes were unrelated to subjective well-being (financial security/anxiety).

Literature proposed that emotions play an important role in decision-making (Loewenstein, 2000; Mellers and McGraw, 2001; Hammond, 2000; Stern, 2009). Financial well-being was associated with lower stress and lower depression (Hsu et al., 2017). Consistent with the literature (see Agrawal et al., 2020; Dubey et al., 2020; Poudel and Subedi, 2020; WHO, 2020), we found that negative emotions during the COVID-19 outbreak were associated with higher financial anxiety and lower financial security. Stress level can cause feeling financial insecurity and worrying about the financial situations. This paper reports that individuals who feel anxious during the COVID-19 outbreak were related to lower financial well-being. Hence, psychological changes emanating from the pandemic is of paramount importance in influencing subjective financial well-being. During an ongoing pandemic, individuals may be affected by income decline, job loss threats, investment losses, financial hardships. As a result, they perceive lower financial well-being. Thus, we found that individuals who perceive a decrease in their current and future income or wealth were related to lower security about their financial situation. As expected, the financial crisis was positively associated with financial anxiety. Importantly, household consumption was not robustly linked to financial anxiety/security. Moreover, this study shows that women feel more secure in their financial situation and worry more about it than men. The finding that gender was negatively related to financial security/anxiety somewhat inconsistent with previous studies. This suggests that although women more frequently feel secure in their financial situation, they still feel more anxiety about financial matters. However, Barrafrem et al. (2020b) and Lind et al. (2020) concluded that women feel lower financial security and higher financial anxiety or lower levels of subjective financial well-being than men. Furthermore, Fujiwara et al. (2020) concluded that women's well-being levels were lower than men. Also, respondents who perceived their income higher were feeling more secure than those perceived their

income lower. The finding that perceived income predicts financial security was perhaps not surprising and is in line with prior studies explored income was positively related to financial security and negatively related to financial anxiety (Barrafrem et al., 2020b).

In terms of life satisfaction, as seen in Table 3, financial security, financial health, future prospect for household' economic situation, mental accounting, perceived income and levels of education were positively related to life satisfaction. On the other hand, emotional construct, gender and marital status were negatively associated with life satisfaction. According to this result, respondents who stated higher levels of financial security, financial health, mental accounting, optimistic future prospect for household' economic situation, perceived income and education had significantly higher levels of life satisfaction. However, respondents who stated higher levels of negative emotional construct, women and married or living with a partner had significantly less satisfied with their life. When the R² value is examined, it is seen that independent variables included in the regression equation can explain 41% of the variability in life satisfaction. If the R² value is evaluated as the effect size, independent variables included in the regression equation have a high effect. It can be said that independent variables have practical significance (Table 3).

Prior research has shown that, COVID-19 was associated with a statistically significant decrease in life satisfaction and happiness and impacted people's self-reported well-being levels (see Fujiwara et al., 2020). Another important finding in our study is that, life satisfaction was predicted by financial security, financial health, perceptions of the future economy of the household economic situation, emotional construct, and mental accounting. Participants who reported optimistic prospects for the future household's economic situation, financially healthy and more secure about financial matters were more satisfied with their lives during the COVID-19 outbreak. The positive relationship between financial well-being and life satisfaction has been explored in prior studies (e.g. Brüggen et al., 2017). Moreover, respondents who perceive an increase in their current and future income or wealth were more satisfied with their life. As expected, respondents who perceived their income higher and have higher education levels were more satisfied with their lives. Our result was consistent with studies suggesting that income positively influences life satisfaction (see Dolan et al., 2008; Özmen et al., 2021; Veenhoven, 1988, 1991) and the lower life satisfaction associated with being single (Özmen et al. 2021). Moreover, men participants with negative emotions during the COVID-19 outbreak were less satisfied with their lives. This result is not in line with previous research showing that life satisfaction statistically significantly worse for women than for men during the COVID-19 outbreak (Fujiwara et al., 2020). Another study, conducted by Gerrans et al (2014), comes to conclusions consistent with this research which revealed that women's life satisfaction scores were significantly higher than men.

Table 3: Linear Regression Models Explaining Financial Security, Financial Anxiety and Life Satisfaction

	Financial Security	Financial Anxiety	Life Satisfaction
	β (SE)	β (SE)	β (SE)
Financial security	-	-	.436 *** (.037)
Financial anxiety	-	-	-.026 (.037)
Financial health	.049*** (.005)	-.027*** (.005)	.036*** (.007)
Financial ignorance	.042*** (.009)	.128*** (.009)	-.011 (.013)
Future of household	.573*** (.109)	-.247* (.110)	.478** (.148)
Future of country	.274* (.126)	-.274* (.127)	.064 (.170)
Future of world	-.209 (.127)	.080 (.127)	-.026 (.171)
Emotional construct	-.194*** (.035)	.186*** (.035)	-.231*** (.047)
Mental accounting	.170** (.040)	-.005 (.040)	.142** (.054)
Financial crisis	-.002 (.019)	.060** (.019)	.021 (.026)
Household Consumption	-.071 (.077)	.007 (.082)	.124 (.109)
Gender (0= women)	-.317* (.148)	-.485** (.148)	-.963*** (.199)
Age	.009 (.007)	-.005 (.007)	-.019 (.010)
Perceived income	.249* (.100)	.059 (.100)	.802*** (.134)
Marital status (0= married)	.104 (.164)	-.198 (.164)	-1.209*** (.220)

Working status (0= working)	.026 (.167)	-.107 (.176)	-.095 (.236)
Education	-.016 (.077)	-.008 (.078)	.258* (.104)
(Constant)	2.161* (.833)	8.746*** (.885)	6.491*** (1.232)
R square	0.281***	0.302***	0.409***
F	34.228***	37.805***	53.401***
N	1333	1333	1333

Note: *p<.05, **p<.01, ***p<.001; the numbers in brackets denote robust standard errors.

5. CONCLUSION

This study's objective was to identify how factors related to financial health, financial ignorance, future prospects, emotional constructs, mental accounting, financial crisis, and household consumptions affect people's subjective financial well-being and life satisfaction during an ongoing pandemic using a sample of 1333 adults in Turkey.

This study investigated whether financial health, financial ignorance, future prospects, emotional constructs, mental accounting, financial crisis and daily consumptions were related to subjective financial well-being, measured by combining two facets—financial anxiety and security. The determinants of these two aspects of financial well-being have been a largely neglected area of research during an ongoing pandemic except a study (Barrafrem et al., 2020b); thus, our results make an important contribution. This study highlights numerous factors related to subjective financial well-being and life satisfaction during the COVID-19 outbreak. Based on our findings, financial health, financial behavioral ignorance, perceptions of the household's future economic outlook and national economic situation, emotional construct and gender were significantly related to financial well-being measured as financial security and financial anxiety. Mental accounting and perceived income were positively related to financial security, while the financial crisis was positively related to financial anxiety. Furthermore, financial security, financial health, perceptions of the future economic outlook of the household economic situation, mental accounting, perceived income and education were associated positively. In contrast, emotional construct, being men and single were negatively associated with life satisfaction.

Our results support previous research findings (see Evans and Over, 2020) and show that containing the COVID-19 outbreak is the first step to mitigating the health impacts and the economic impacts. This study explores the role of pandemics in subjective financial well-being and life satisfaction. Our study makes several contributions to the literature. Firstly, we investigate the perceptions of the economic outlook of the household, national, and global economic situation at the onset of the economic slowdown during the COVID-19 outbreak. Second, we use subjective measures of financial well-being, in contrast to previous studies have mostly focused on objective measures. Third, we test for a rigorous set of independent variables that affect financial well-being and life satisfaction. Finally, we examine if the factors differ between genders, and how psychological and financial situation relates to financial well-being and life satisfaction.

While many countries have reopened their economies, allowing a cautious back to work and economic life, the pandemic seems likely to remain a reality of life for the foreseeable future (Barrafrem, 2020b; Hevia and Neumeyer, 2020). Thus, during this COVID-19 crisis, our results will help government and policymakers to maintain their economic and psychological policies and measures to provide relief to individuals during this current and post COVID-19 recovery knowing the psychological and financial situation of the general public. The findings would be useful for policy makers to maintain the parallel expansion of financial, psychological and welfare measures to improve people's financial well-being and life satisfaction and to strengthen the subjective well-being of individuals to fight against COVID-19. This research also provides the issue facing each one of us is how we manage and react to the stressful situation during the COVID-19 outbreak unfolding so rapidly in our lives and communities (WHO, 2020). Individuals react to the COVID-19 varies depending on their physical, psychological, and socio-economic characteristics, and there might be different practices in line with the course of the pandemic and the measures taken by the countries (Özmen et al., 2021). Individuals with the negative psychological and economic situation will need assistance. Professionals or psychologist could provide need-oriented support services and activities to increase psychological resilience and financial knowledge to those most likely to suffer from the negative effects of the COVID-19 outbreak. These support services may be given any formal or informal arrangements through mass media, social media, telephone or internet. The Government also needs to assess an increase in spending by expanding the various social and economic programs that could target those households most affected by the COVID-19 crisis (Mera, 2020).

Although its contributions to the field explain subjective financial well-being and life satisfaction during the pandemic process, it will be useful to state that this study has some limitations. First, the analyses presented in this paper show the relationship between variables. It is not appropriate to perceive and interpret the relationships between variables as causality. So, we cannot make inferences about causality. For example, although it might seem reasonable to believe that higher financial health leads to better financial security, it may also be that better financial security leads to higher financial health. For the future, we were aimed to deepen the relationships between these constructs. Studies in which researchers manipulate subjective financial well-being and life satisfaction experimentally are also needed to determine causality. The second of the limitations is that the data collection process is carried out online. It may not be possible to say exactly the sample representation that answered our online survey. Those who do not have internet access or have a negative attitude towards answering online surveys, etc., some subgroups are likely not to be included in the sample. Third, the respondents were not a random sample of the country. The sample relied on self-report data that included online connected people with university degrees. Thus, the results of this study cannot be generalized to the population in general. Further research is warranted using broader and more representative samples, especially including a wider range of socioeconomic backgrounds and aspirations.

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