Understanding Factors Affecting Financial Satisfaction: The Influence of Financial Behavior, Financial Knowledge and Demographics

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Abstract: The continuous changes and improvements in the financial world created by sophisticated and increased variety of financial products, and diversity in financial services make it essential for individuals to constantly obtain new information and exhibit desirable financial behaviors for financial satisfaction in order to respond to this financial environment. The current study examines the impacts of financial behavior, financial knowledge, and selected demographic variables on financial satisfaction. The study sample consists of academic and administrative staff of a major state university in Turkey (n=596). Data was analyzed using binary logistic regression analysis. The regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was household income.

Keywords: financial satisfaction, financial behavior, financial knowledge, demographics

1. Introduction

Individuals across the globe and living in different economic, financial and social environments have to take more responsibility for their future financial satisfaction and protection. In most countries, the ongoing difficult economic situations and instable job market mean that individuals and their families must plan for their immediate and long-term future, and particularly for unexpected life events [1].

Today, higher life expectancy and life quality make individuals more responsible for healthcare expenses of themselves and their families. In addition, due to the increase in education costs parents have to plan their finances for their children’s education and investment. Even though these trends are more definite in developed countries, they have started to emerge in most of the developing countries as well [2]. In other words, increase in life expectancy and life quality in developed and developing economies leads employees to take more responsibility day by day and also has been aggregated financial satisfaction in the years [1].

Individuals must have a certain level of financial knowledge as the combination of their understanding of financial products and concepts, and their ability and confidence to evaluate financial risks and opportunities (e.g. investment risks, investment confidentiality, etc.) to exhibit desirable financial behaviors and financial choices to improve their financial satisfaction [3]. This is so important to maintain financial confidence and financial satisfaction under the complex and unstable financial conditions. Individuals with higher financial knowledge are more able to manage their income, use credit and debt effectively, choose financial products with lower costs and better credit conditions to meet their needs and desires as well as contribute to economy by generating healthier financial markets [4]. The 2008 global economic crisis has shown the significance and impact of financial knowledge and financial behaviors on financial and economic stability as well as on individuals’ or families’ financial satisfaction, especially for low-income groups [1].

Although the literature has been documented to better understand and determine the predictors of financial satisfaction over the years [e.g., 5, 6, 7, 8, 9, 10, 11, 12], few studies have combined multiple variables (e.g., financial knowledge, corresponding financial behaviors, demographics) in a single model. This study will add to the literature by looking at the several determinants on financial satisfaction within a single model such as, of one’s
self-reported financial knowledge, financial behaviors over the past year, and demographic characteristics using a Turkish sample. Therefore, the questions directed this study are presented below:

1- What is the relationship between financial behavior and financial satisfaction?
2- What is the relationship between financial knowledge and financial satisfaction?
3- Do demographic characteristics have an impact on financial satisfaction?

2. Background

2.1. Financial Satisfaction

As an important factor determining quality of life [13], numerous studies have been documented over the past years to define and better understand financial satisfaction. Researchers have been using certain terms interchangeably to identify components and perceptions of individuals’ financial situation such as, financial well-being, financial wellness, financial satisfaction, financial heath etc. This study explicitly addresses financial satisfaction.

Campbell [14] defined financial satisfaction as “a sub-construct of general well being.” Later, Williams [15] added material and non-material aspects to the financial satisfaction. Similarly, Joo and Grable [7] stated that financial satisfaction includes contentment with one’s material (objective) and non-material (subjective) financial situation in general. In their recent study, Ali et al. [5] also described financial satisfaction as “a person’s perception concerning his/her current financial situation”.

Financial satisfaction has been measured in different ways. Some researchers used a one-item measure while others used multiple items to determine individual’s financial satisfaction. Although Morgan’s [16] single item (i.e., “how satisfied are you with your financial situation?”) has been called a global assessment of financial satisfaction by researchers, several studies using multiple items (current level of savings, ability to stay out of debt, level of assets, ability to meet emergencies etc.) to measure financial satisfaction have been documented by researchers [6, 10, 13, 17, 18, 19, 20].

Prior empirical and theoretical research provide as evidence suggesting that financial satisfaction is influenced by demographic and socioeconomic characteristics as well as financial management practices [7, 13, 21]. Using a sample of white-collar clerical workers, Joo and Grable [7] developed a framework included several determinants to predict financial satisfaction such as, financial behaviors, financial stress, financial knowledge, financial solvency, risk tolerance, income, education, age, education, and ethnicity. Based on their findings, financial satisfaction was associated with financial behaviors, financial stress, financial knowledge, financial solvency, risk tolerance, income, and education. Similarly, Plagnol [21] argued that there are both economic and noneconomic indicators associated with financial satisfaction such as assets, debt, and household size. According to Mugenda et al. [13], satisfaction with financial status is influenced by economic factors, mainly savings and net worth that a proportion of income saved adds to households' net worth over a period of time is crucial for financial satisfaction.

2.2. Financial Satisfaction and Financial Behavior

Several definitions have been documented to define financial behavior in the literature. For instance, Hogarth et al. [22] describe financial behavior as a combination of four elements such as, cash-flow management, credit management, savings, and investments practices. According to Xiao [23], “financial behavior can be defined as any human behavior that is relevant to money management.”

Economists suggest that rational budget management and savings tendencies are today’s desired financial behaviors that increase individuals’ overall financial satisfaction [10]. Robb and Woodyard [8] stated that although influenced by external forces such as macro level economic factors and policies formed by government and private industry, individuals make the final decisions and act accordingly. As such, financial satisfaction is directly related to individuals’ behaviors [8]. Similarly, O’Neill et al. [24] suggest that achieving desired level of financial satisfaction requires money management behaviors in respective to the stages of behavioral change. For example, individuals appear to exhibit positive financial behaviors, such as saving, budgeting, when they are willing to take action to overcome their financial problems such as running out of money before the new money arrive, borrowing to pay other debts.

The prior research has shown that financial behaviors are influential on financial satisfaction [e.g., 5, 7, 8, 10, 12, 25]. A recent study conducted by Ali et al. [5], a model has been developed by the researchers to predict the level of financial
satisfaction among Malaysian working individuals. According to their study results, financial planning and basic money management behavior were an important determinants of financial satisfaction. Findings from Joo and Gamble’s [7] study suggested that the majority of respondents with low levels of financial satisfaction were not prepared to manage more sophisticated concepts and behaviors. Using two behavior variables such as, the number of financial behaviors and self-evaluation of financial behaviors, Xiao et al. [12] reported that both behavioral variables have positive associations with financial satisfaction among a sample of consumers who use credit-counseling services. In another study, Xiao et al. [25] reported that positive financial behaviors contribute to financial satisfaction and financial satisfaction in turn contributes to life satisfaction for college students. Robb and Woodyard [8] identified the setting aside emergency fund, obtaining credit report, no overdraft, credit card payoff, having retirement account, and risk management skills as six best financial practices in their study using data taken from the Financial Industry Regulatory Authority’s (FINRA) National Financial Capability Study. They found a positive relationship between these six best financial practices and financial satisfaction. Consisted with their findings, Ünal and Düger [10] determined that engaging in positive financial behaviors, such as saving and investment practices have positive impacts on financial satisfaction.

2.3. Financial Satisfaction and Financial Knowledge

Individuals need financial knowledge to make better financial decisions or to deal with financial issues [8]. Robb and Woodyard ([10] argued that behavioral improvements might result based merely on the improvements in knowledge. According to Wagner [26], financial knowledge has an influence on individuals’ financial behaviors. It is assumed that the more financially knowledgeable one is, the better financial behaviors that they could be involved. Those who are more financial knowledge should be able to exhibit better financial behaviors and decisions [26]. Additionally, Joo [27] proposed a financial fitness diagram including financial knowledge as one of the elements of personal financial wellness along with financial satisfaction and financial behaviors. Therefore, higher financial knowledge provides positive financial behaviors such as, managing income and expenditures, developing saving habits, planning retirement and investments, budgeting etc. for individuals to improve their financial situations, and essentially contributes to financial satisfaction [28].

Previous research investigating the impact of financial knowledge points to a positive relationship between financial behaviors and financial satisfaction as an outcome. In other words, individuals who are financially knowledgeable are more likely to show positive financial behaviors that ultimately contribute their financial satisfaction [3, 5, 7, 9, 12, 29, 30, 31, 32]. For instance, Joo and Grable [7] found that high levels of knowledge and financial skills lead to higher levels of financial satisfaction by strengthening desirable financial behaviors. Using data from the customers of a financial consulting organization, O’Neill et al. [31] examined the relationship between financial well-being and financial activities among 3,121 customers. According to their study results, customers with higher financial well-being were more motivated to pursue positive financial behaviors that might result from the benefits of financial knowledge provided by the consulting organization. In Mandell’s [30] study, conducted with high school seniors, it has been found that students with higher financial literacy scores were more likely to balance their checkbooks than financially illiterate ones and also less likely to bounce a check. The study results from Miller et al. [3] showed also that individuals scored low financial knowledge were more likely to have financial issues, such as being indebted, having mortgage with higher interest and less likely to save and plan their retirement.

3. Method

3.1. Participants and Procedure

Based on a cross sectional research design, the data were collected from a sample of employees (academic and administrative) at a large state university in Ankara, Turkey between in June and July 2015. The population of the current employees of the university was N= 9450. Simple random sampling with 99% confidence level resulted in a study population of n= 621. A consent form was provided for the participants explaining the purpose and confidential nature of the current study. Data collection yielded n= 596 complete surveys with no missing data for a response rate of 95.97% of the initial sample (n= 621). The final data consisted of 340 academic and 256 administrative employees.

3.2. Data Analysis

The present study employed logistic regression
to explore the relationships between dependent and independent variables. Logistic regression has known as well suited for testing hypotheses about relationships between a categorical dependent variable and one or more categorical, such as gender, as well as continuous, such as age, independent variables [33]. While logistic regression gives each predictor a coefficient $b$ that measures its independent contribution to the dependent variable, the dependent variable can only take two values as 0 and 1.

There are two types of logistic regression, binary logistic regression and multinomial logistic regression. Binary logistic regression is typically used when the dependent variable is dichotomous and the independent variables are either continuous or categorical [34]. Since the dependent variable is dichotomous (i.e., low financial satisfaction and high financial satisfaction), binary logistic regression was used in this study. Low financial satisfaction was coded as “0” while high financial satisfaction was coded as “1”.

### 3.3. Dependent Variable

**Financial Satisfaction**

Morgan’s [16] single statement was used to measure financial satisfaction of the participants (i.e., “how satisfied are you with your financial situation?”). The 5-point scale, ranging from 1 denoting very unsatisfied to 5 denoting very satisfied were asked when the dependent variable was dichotomous or categorical [34]. Since the dependent variable is dichotomous (i.e., low financial satisfaction and high financial satisfaction), binary logistic regression was used in this study. Low financial satisfaction was coded as “0” while high financial satisfaction was coded as “1”.

### 3.4. Independent Variables

**Financial Behavior**

Participants’ financial behavior was examined using ten 5-point Likert-type questions, ranging from 1 meaning never to 5 meaning always. Items used were based on measures originally modified and developed by Joo [1998, as cited in 7], and Cronbach’s alpha reliability was found .82 which is acceptable as an adequate level of internal consistency [35]. Possible financial behavior scores ranged from 5 to 50 (with higher scores representing positive financial behaviors and vice versa). The items 6, 7, 8, 9, and 10 were reverse coded. The mean financial behavior score of participants was 41.4 indicating that the average participant experienced both positive and negative financial behaviors over the past year. The Cronbach’s alpha reliability score for the instrument in the current study was .78.

**Financial Knowledge**

Participants’ self-assessed financial knowledge level was measured by using Joo and Grable’s [7] 5-point-stair-step question (i.e., “how would you rate your financial knowledge level?”), 1 meaning low financial knowledge while 5 meaning high financial knowledge. About one-half of the respondents (47.7%) reported their financial knowledge at medium level (step 3). The respondents who rated their financial knowledge low and lower than medium (steps 1 and 2) were 22.5% while 29.9% of them reported their knowledge above medium and high level (steps 4 and 5).

### Demographic Characteristics

Previous research suggests that a number of demographic factors appear to influence financial satisfaction [7, 9, 36, 37]. This study examined the effects of age, education, and household income on financial satisfaction along with financial behavior and financial knowledge. As a demographic characteristic, age was continuous variable in this study. Household income and education, however, were dummy coded. The participants who had income up to 4000 TL were coded 0, and the others who reported at 4000 TL and above income were coded 1. Finally, the participants who had received a college degree or higher were coded 1, otherwise 0.

received a college degree or higher while those who had a high school degree and less were 24.5%. The average age of the participants was 37.43. Finally, 53% of the survey respondents reported an income less than 4000 TL while the rest of the participants (47%) reported income at 4000 TL and above. Table 1 provides further details about the participants’ demographic characteristics.
4.2. Binary Logistic Regression Analysis

As it was mentioned before, binary logistics analysis, employing enter method, was run a model predicting the outcome (dependent) variable, financial satisfaction, using the predictor (independent) variables of interest such as, financial behavior, financial knowledge, age, education, and lastly household income.

Table 2 shows the results of a score test. The column labeled Score gives the estimated change in model fit if the term is added to the model, the other two columns give the degrees of freedom (df), and p-value (Sig.) for the estimated change. Table 2 shows that the coefficients of predictive variables which were not included in the model significantly was far from zero, in other words, adding one or more independent variables (i.e., financial behavior, financial knowledge, age, education, and household income) in the equation was expected to improve the predictive power of the model.

Table 2. Variables Not in the Equation

<table>
<thead>
<tr>
<th>Step 0</th>
<th>Variables</th>
<th>Score</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial behavior</td>
<td>47.979</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Financial knowledge</td>
<td>28.541</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.023</td>
<td>1</td>
<td>.879</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>5.932</td>
<td>1</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>Household income</td>
<td>22.116</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Overall Statistics</td>
<td>62.781</td>
<td>5</td>
<td>.000</td>
</tr>
</tbody>
</table>

Next, changes in -2 Log Likelihood (-2LL) value of the baseline model were examined. When all independent variables entered the model, the constant reduced -2LL from 755.084 to -2LL 688.922. Declining -2LL values indicated improved model fit.

R² measures of the model were .105 for the Cox & Snell R², and .146 for the Nagelkerke R². Both Cox & Snell R² value and Nagelkerke R² value indicated modest improvement in fit over the baseline model (0 - .1: poor improvement, .1 - .3: modest improvement, .3 - .5: moderate improvement and more than .5: strong improvement) [38]. The R² values indicate how much variation in the outcome variable (i.e., financial satisfaction) is explained approximately by the model. The R² values of the study suggest that the model explains roughly 15% of the variation in financial satisfaction.

The result of Hosmer and Lemeshow chi-square test wasn’t significant (p>0.05) which indicates that the model fits better than the baseline model with no predictors. The initial correct classification was 67.1%. When the independent variables entered the model, the correct classification was increased from 67.1% to 70.6%. This finding can be interpreted as an indicator of model-data fit as well.

The table “Variables in the Equation” shows the regression coefficients (b), their standard errors (s.e.), the Wald test statistic with associated degrees of freedom (df) and p-values (sig.), and the Exp (B) (exponentiated coefficient). The regression coefficient b represents the amount the dependent variable will change by if the independent variable changes by one unit. The results showed that the impacts of financial behavior, financial knowledge, and household income on financial satisfaction were statistically significant (p<0.05) (Table 3).

Table 3. Variables in the Equation

<table>
<thead>
<tr>
<th>Step 1</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial behavior</td>
<td>.071</td>
<td>.015</td>
<td>21.620</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Financial knowledge</td>
<td>.300</td>
<td>.106</td>
<td>8.025</td>
<td>1</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-.016</td>
<td>.010</td>
<td>2.341</td>
<td>1</td>
<td>.126</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>-.129</td>
<td>.250</td>
<td>.265</td>
<td>1</td>
<td>.607</td>
</tr>
<tr>
<td></td>
<td>Household income</td>
<td>.453</td>
<td>.206</td>
<td>4.847</td>
<td>1</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-3.499</td>
<td>.598</td>
<td>34.257</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

The b coefficient for financial behavior was .071 meaning that one unit increase in positive financial behavior increases financial satisfaction odds by 7.4% [(1-1.074). 100]. The b for financial knowledge was .300 meaning that if individuals go up 1 point in financial knowledge, financial satisfaction will increase by 35.1% [(1-1.351). 100]. Finally, one unit increase in household
income ($b = .453$) increases financial satisfaction by 57.3% ($[1-1.573] * .100$).

5. Discussion

Financial satisfaction is one of the major components of quality of life [13], and yet, much research has been documented over the years to get better understand of determinants and outcomes of satisfaction from financial status. It is generally assumed that financial satisfaction would be improved by a lack of financial problems [7]. The present study examined the impacts of financial behavior, financial knowledge, and demographic characteristics on financial satisfaction. According to results of regression analysis, financial satisfaction is predicted by household income, financial knowledge, and financial behavior that explained about 15% of the variation in financial satisfaction.

In the current study, the most influential factor predicting financial satisfaction was household income. Accordingly, one unit increase in household income had increased financial satisfaction by 57.3%. Given the structure of the financial satisfaction, the effect of household income on financial satisfaction is not unexpected. Theory of Planned Behavior suggests that performance of a behavior might depend on the availability of requisite resources [39]. Yet, positive financial behaviors that individuals perform in this study such as, paying credit card bills in full to avoid finance charges, putting money aside for savings, budgeting, and planning retirement might be result of the income capacity. The previous research also supports the study findings. Such that, Mugenda et al. [13] found that money managers who have high income without financial difficulties evaluate their financial status more positively. Joo [27] stated that income is the second most common set of terms after health used to define financial wellness which includes financial satisfaction as its components. According to one description, financial wellness is “having enough income”. The other one defines financial wellness as “sufficient income and assets to support financial goals”.

The second most influential factor determining financial satisfaction in the present study was financial knowledge. The study results showed that one unit increase in financial knowledge had increased financial satisfaction by 35.1%. Financial knowledge has been defined as an understanding the terms and principles that is essential for a successful financial management [Garman and Forgue, 2000, as cited in 9] which provides the ability to understand and analyze financial options, planning for the future, and responding wisely to the financial events. Having the ability has influence on financial satisfaction land overall life quality can be very helpful in increasing income, providing financial security, and anticipating the future to be prepared financially [9]. The literature also supports the current findings that individuals who are financially knowledgeable are more likely to show positive financial behaviors which leads to improve financial satisfaction. For instance, a recent study conducted by Ali et al. [5] has proved that financial satisfaction is deemed to be an appropriate outcome of being financially knowledgeable. Sabri et al. [32], using equation structural modeling, stated that perceived financial well-being can be increased through financial knowledge which they described that result as the most consistent with prior study results. Taft et al.’s [9] study has also demonstrated evidence that higher financial literacy leads to greater financial satisfaction and less financial concerns.

The least influential factor predicting financial satisfaction in this study was financial behavior. According to study results, one unit increase in financial behavior had increased financial satisfaction by 7.4% meaning financial satisfaction tends to be increased slightly when individuals adopt positive financial behaviors. Although financial behavior is not the main determinant of the financial satisfaction in this study, the literature has been identified financial behavior as a major determinant of financial satisfaction of one’s financial situation. It might be result from indirect relationships between the study variables. Such that, financial behavior might be a mediator between financial satisfaction and financial knowledge in other terms financial behavior might be a bridge between financial knowledge and financial satisfaction. There is evidence from recent studies addressing mediating effects of financial behavior on financial satisfaction. For instance, Ali et al. [5] found that financial behavior, specifically financial planning, mediates the effects of financial literacy on financial satisfaction. Consisted with that, Falahati et al. [40] found indirect relationships between financial behavior and financial satisfaction in their study. According to their study results, financial literacy has an impact on financial satisfaction through financial behavior.

6. Limitations

This study was not without its limitations that need to be addressed. First, the data used in this study are from a cross-section design survey, which is unable to analyze causal relationships for the study variables as well as based on one-time
observation. Future research should be designed as longitudinal in order to obtain causality linkages between these variables and to detect developments and changes in demographic and socioeconomic characteristics in the target population. Research should also examine larger populations in order to broaden the current findings. Second, this study only focused on the subjective measures of financial knowledge and financial satisfaction. To study the interrelationships between these variables comprehensively, objective measures might need to be considered as much as subjective measures with a particular attention to the relationships between these measures. Third, this study examined the direct effects of financial behavior, financial knowledge, and demographics on financial satisfaction. Future attempts should consider more exploring indirect effects, in other words mediating effects of predicting variables on financial satisfaction.

7. Conclusion

This paper reports the results of the study on the relationship between financial behavior, financial knowledge, financial satisfaction, and selected demographics. The conclusions of the study were drawn from data collected a sample of employees at a large state university in Turkey. Employing logistics regression analysis, this study supports the prior research as evidence suggests that household income, positive financial behaviors, and financial knowledge contribute to financial satisfaction. The most influential factor predicting financial satisfaction in the study was household income followed by financial knowledge and financial behaviors. This research has implications for the professionals in the family and consumer sciences field and financial practitioners. Family and consumer researchers, educators, and financial practitioners can help individuals to improve their financial knowledge, facilitating changes in negative financial behaviors, and eventually increasing their income with these skill-building efforts. For example, the mean financial behavior score of participations was 41.4 out of 60 implying that average person in the present study engaged in both positive and negative financial behaviors over the past year. This result suggests the need for remedial personal financial education. Such education might include discussions and financial management practices, such as budgeting, spending, credit usage, savings, investment, increasing income, planning retirement and emergency fund, etc. These professionals are in the best position to strengthen financial knowledge and corresponding desirable financial behaviors of individuals. Targeted and proactive educational efforts may lead to an advancement of individuals’ interests that fundamentally make an increase on financial satisfaction.

8. References


