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THE POTENTIAL IMPACT OF TIME PERSPECTIVE ON FINANCIAL CAPABILITY: AN EMPIRICAL STUDY IN TURKEY

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Abstract

Financial capability incorporates skills, behavior, and knowledge in five areas: making ends meet, keeping track, planning ahead, choosing products, and staying informed. People should understand how to manage their money, use credit, choose insurance, pay taxes, and save for emergencies, long-term financial security, and development (Atkinson et al., 2006). Time Perspective is a basic psychological dimension of time. Time perspective is used both in temporal coding and collecting and remembering events, as well as in the formation of expectations, objectives and imaginary scenarios. Results of several studies confirm that types of Time Perspective are significantly linked to several important aspects of human functioning (Przepiorka et al., 2016). The aim of this study is to explore the relationship between time perspective and financial capability. Data were collected in 2017 in Ankara, Çankaya district, Turkey. In this study, the total number of participants was determined using a random sampling method, and 513 participants completed the survey. About half (50.7%) of the sample were women; 49.3% were men. The average age of the participant's was 31.2 (*SD* = 12.09). More than half (59.1%) of the sample were single. This research finds that domains of time perspective were significantly related to financial capability except past-positive and present-hedonistic. Participants who focused a generally negative, aversive view of the past (past-negative) and a fatalistic, helpless, and hopeless attitude toward the future and life (present-fatalistic) were negatively associated financial capability. Participants who focused a general future orientation (future-orientation) were positively associated financial capability.

Keywords: Financial capability, time perspectives, financial knowledge, financial socialization, financial risk

INTRODUCTION

Participation in economic life should maximize life chances and enable people to lead fulfilling live. This requires knowledge and competencies, ability to act on that knowledge, and opportunity to act (Johnson and Sherraden, 2007). Literature refers to this as "financial capability (see Johnson and Sherraden, 2007; Sherraden and Ansong, 2016, p 83). In other words, financial capability is the combination of attitude, knowledge, skills, and self-efficacy needed to make and exercise money management decisions that best fit the circumstances of one's life (Johnson and Sherraden 2007). Originally conceived as "financial literacy," the National Foundation for Educational Research's definition was "the ability to make informed judgments and take effective decisions regarding the use and management of money" (Atkinson et al., 2006; Noctor et al., 1992). According to Atkinson et al. (2006), financial capability incorporates skills, behavior, and knowledge in five areas: (1) managing money: making ends meet, i.e., having little problems dealing with financial obligations; (2) managing money: keeping track, i.e., having an overview of expenses; (3) planning ahead, i.e., being future oriented; (4) choosing products, i.e., deciding reasonably in financial matters; and (5) staying informed, i.e., seeking information about financial products and the economy (Hoelzl and Kapteyn, 2011). People should understand how to manage their money, use credit, choose insurance, pay taxes, and save for emergencies, long-term financial security, and development. Many people manage their economic life without benefit of mainstream financial services (Sherraden and Ansong, 2016).

Policy makers in Turkey are increasingly interested in financial capability. The National Strategy for Financial Capability was introduced in 2014 and the Financial Education Action Plan (2014-2017) was coordinated by the Capital Markets Board within the framework of current state analyses and internationally accepted principles (Republic of Turkey Prime Ministry, 2014; OECD, 2016). However, the preliminary results of "Turkey Financial Capability Survey" jointly conducted by the World Bank and the Capital Markets Board suggested that financial literacy levels are low in our country (SPK, 2015). Previous studies conducted in other countries indicated that individuals with higher levels of financial capability possess the knowledge, skills, and access to tools to effectively manage their finances to foster long-term well-being (Serido et al., 2013). The complexity of skills required to be financially capable vary across households and depend on a range of factors such as household size and composition, income and expenditure patterns and so on. Regardless of how much money they have, people require financial management skills, and these become even more important during an economic downturn when additional pressures are placed on households' finances. Over the last two decades credit has become more widely available and the costs of living increasing at fastest rate in 10 years. Therefore the consequences of a lack of financial capability are becoming progressively more serious (Taylor et al., 2011). Among low-income and low-education families, financial capability is especially important because financial knowledge tends to be lower (Huang et al., 2013; Mandell, 2008). However studies suggested that many people were not well informed about financial products, undertake little long-term planning or budgeting and most financial decisions were reactive rather than proactive (Taylor et al., 2011).

There is a large literature describing various indicators of financial capability (see, Taylor et al., 2009). Financial knowledge is one of the components of financial capability. Creating financial capability requires improving people's ability to act, but also the opportunity to act in their financial interests (Johnson and Sherraden, 2007). Studies conducted in the US and abroad demonstrated that consumers benefit from higher levels of financial knowledge and there was positive relation between higher levels of financial knowledge and greater ability to financial decisions (see, Chen and Volpe, 1988; Serido et al., 2013). Research on financial capability and financial knowledge seeks to understand and to improve how people make financial decisions (Hoelzl and Kapteyn, 2011). Some others indicated that childhood experiences could be more crucial because financial events that happen within a family context occur concurrently with financial socialization. As such, financial experiences at a young age might be a key factor that leads to better financial capability for adults (Sohn et al., 2012). Previous research has shown that people obtain financial skills, knowledge and attitudes not only from formal educational networks but also from interactions with socialization agents such as family, friends, school, and media (Hilgert et al., 2003). Researchers also suggested that achieving financial capability during the transition to adulthood was an indication of positive age-related development (Shim et al., 2013) to prepare young adults for the more complex life choices and decisions of later life (Serido et al., 2013). Financial capability needs to be strengthened, and that this needs to start in young age (Hoelzl and Kapteyn, 2011; Van Rooij et al., 2011). Risk tolerance also appears to be an important factor for the financial decisions of households such as savings and investment decisions. Different levels of risk tolerance can result in differences in financial decisions and outcomes (Chatterjee et al., 2017; Kapteyn and Teppa, 2011). Previous study indicated that financial capability programs could benefit from providing clients with different assessment tasks to learn more about their risk aversion (Kapteyn and Teppa, 2002).

Results of several studies confirm that types of time perspective are significantly linked to several important aspects of human functioning (Przepiorka et al., 2016). Related to time perspective, earlier literature demonstrated that people differ in terms of the emphasis or weight that is attached to long-term versus short-term outcomes of their financial behaviors (Bearden et al., 2003; Strathman et al., 1994; Zimbardo and Boyd 1999). Although individual differences in perceptual orientation toward time have been shown to predict a variety of financial behaviors (see, Joireman et al., 2005), there has been very limited research that has examined how time perspective might impact financial capability. Howlett et al. (2008) pointed out that people who display a higher propensity to consider the future consequences of their behavior would be more likely to make decisions that will maximize their future financial well-being than people with lower levels of future orientation. Studies reported that one's

future orientation was likely to have a significant impact on saving behaviors (see, Jacobs-Lawson and Hershey, 2005).

Given the importance of financial capability and planning for the long term, the objective of this research was to determine the interrelationships between financial capability and time perspective when controlling for other financial variables of interest (i.e., financial socialization, financial knowledge, and risk tolerance) and socio-demographic factors. This study responds to the gap in the research literature in regards to the possible relationships among the aforementioned variables.

METHOD

Participants

Data were collected in 2017 in Ankara, Çankaya district, Turkey. In this study, the total number of participants was determined using a random sampling method, and 513 participants completed the survey. Participants were contacted in person, and surveys were administered individually. For survey interviews, participants were visited at home. Upon arrival at their homes and following the researcher's self-introduction, the researcher explained the study objectives and that participation was entirely voluntary. After obtaining their consent, the survey packets, which participants read and completed on their own, were distributed, and then the interviewers collected all surveys once they were completed.

About half (50.7%) of the sample were women; 49.3% were men. The average age of the participant's was 31.2 (*SD* = 12.09). More than half (59.1%) of the sample were single. 68.8% of the participants had college or higher degrees and 31.2% of the participants had high school or lower degrees. With respect to interviewees' spouses, 48.4% of the spouses held high school or lower degrees, and 51.6% of the spouses held college or higher degrees. Less than half (45.2%) of the participants was working, 35.9% of the participants was student and average income was 4042.33TL (*SD*=2537.32). Average household size was around 4 (*M* = 3.7, *SD* = 1.62) and average number of child was around 1 (*M* = 1.49, *SD* = 1.19).

Procedure

This study used a questionnaire to assess determine the interrelationships between financial capability and time perspective when controlling for other financial variables of interest (i.e., financial knowledge, financial socialization, and risk tolerance) and socio-demographic factors. The questionnaire concluded with socio-demographic questions, including age, gender, income, marital status, level of education, spouse' educational level, number of children, working status, and family.

Data analysis began by calculating sample frequencies on all independent variables. Then Pearson Correlation test was used to relationship between financial capability and construct variables. Finally, Ordinary Least Square Regression analysis was computed to determine the interrelationships between financial capability and the independent variables when control socio-demographic variables. For the regressions, a set of dummy variables had to be created. Gender was already coded as a dummy variable with women = 1 and men = 0 with female as the reference category. Age and income were continuously measured in years and Turkish Lira, respectively. Educational level was recoded six items (illiterate, primary school, secondary school, high school, college, master's degree or higher) into two categories as high school graduates or less = 1 and college graduates or more = 0. Marital status was recoded as a dummy variable with married =1 and otherwise = 0. Before conducting regression analysis, data were checked for assumptions of regression analysis (multicollinearity and auto correlation) and found fit for the procedure.

Measurement Variables

Dependent Variable

Financial Capability: To measure the financial capability field, this study used the Financial Capability Scale (FCS) developed by Collins, and O'Rourke at the Center for Financial Security at the

University of Wisconsin (2013). The FCS is based on a series of 6 subjective self-reported responses (e.g., Do you currently have a personal budget, spending plan, or financial plan? Responses included 1 (*yes*) or 0 (*no*); How confident are you in your ability to achieve a financial goal you set for yourself today? Responses included 0 (*not at all confident*), 1 (*somewhat confident)*, 2 (*very confident*)). These include a mix of reported behaviors, as well as feelings or perceptions. The FCS does not use objective values such as savings or debt levels. This is because these types of measures are difficult to collect with any degree of reliability or validity. These measures also may not offer insights into financial capability; for example, a client might borrow more and save less in pursuit of a particular financial goal. In the current study internal consistency with the Cronbach's alpha was .54.

Independent Variables

Time Perspective: Time Perspective is a basic psychological dimension of time. Time perspective is used both in temporal coding and collecting and remembering events, as well as in the formation of expectations, objectives and imaginary scenarios (Przepiorka et al., 2016). This study used the short version of the Zimbardo Time Perspective Inventory (ZTPI-short) Turkish Version. ZTPI-short is a subset of 15 items taken from the ZTPI-56, consist of five scales; the Past-Negative, Past-Positive, Present-Fatalistic, Present-Hedonistic, and Future scale. Each scale is comprised of three items from the original ZTPI (Zimbardo and Boyd, 1999), which manifested high loadings in exploratory factor analysis. The response scale was five-point Likert-type scale from 1 (*very uncharacteristics*) to 5 (*very characteristics*). In the current study internal consistency with the Cronbach's α values were .59 for past-negative, .59 for past-positive, .59 for present-fatalistic, .70 for present-hedonistic, .68 for future. The Cronbach's α value was found to be .73 for ZTPI-short TR.

Financial Knowledge: Financial knowledge was measured using Financial Knowledge Scale developed by Knoll and Houts (2012). Financial Knowledge Scale was consisting of 20 multiple choice or true/false choice (also including "don't know" option) questions. These questions cover topics ranging from the inflation, retirement planning, general investing, housing, life insurance and debt management, the workings of risk diversification. Participants were instructed to answer the questions without consulting additional information or using a calculator. Respondents who answered correctly were given 1 point, while respondents who answered wrongly were given 0 points. All the scale items were summed up to compute the total score. The total score ranged from 0 to 17. The higher score indicates higher financial knowledge.

Financial Socialization:Parental Direct Financial Teaching: Parental direct teaching was defined as participants' perception of their parents' engaging in direct teaching methods of financial management while they were growing up (Shim et al., 2010). Participants were asked to assess on a five point scale 1 (*strongly disagree*) to 5 (*strongly agree*) the extent to which they thought their parents engaged in six direct teaching methods (e.g., spoke to me about the importance of saving). Cronbach's alpha was .53.

Parental Financial Role Modeling: Parental financial role modeling was defined as participants' assessment of the extent to which they presently imitate the roles modeled by their parents when managing their finances (Shim et al., 2010). Participants were asked to indicate on a five-point scale 1 (*strongly disagree*) to 5 (*strongly agree*) their agreement with four statements (e.g., When it comes to managing Money, I look to my parent(s) as my role models). Cronbach's alpha was .93.

Financial relationship with parents: By assessing the participants' financial relationship with parents, we examine conflict and stress in the participants' relationships with their parents as it directly related to money and spending. Participants were asked to indicate on a five-point scale 1 (*strongly disagree*) to 5 (*strongly agree*) the degree to which they agreed or disagreed with three items adapted from Allen et al., 2007 and Shim et al., 2010. Cronbach's alpha was .84.

Financial Risk: The measure of financial risk tolerance generated from the Survey of Consumer Finances (SCF). Participants were asked to "which of the following statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?"

Responses were including: 1. Take substantial financial risk expecting to earn substantial returns. 2. Take above average financial risks expecting to earn above average returns. 3. Take average financial risks expecting to earn average returns. 4. Not willing to take any financial risks.

***Demographic variables*:** The study involved the following demographic variables for participants: age, gender, educational level, spouse's educational level, monthly income, marital status, family size, and having child.

RESULTS

Pearson correlation analysis was used to determine the relationship between financial capability and construct variables. The results of Pearson correlation analysis for the present study are displayed in Table 1. There was significant correlation between financial capability and three domains of time perspective. This shows a negative correlation between past-negative, present-fatalistic and financial capability, however, it shows positive correlation between future-oriented and financial capability. This result indicates that people who plan for the future and trust that their decision will work out (future-oriented) have higher financial capability. On the other side, people who focus on all the things that went wrong in the past (past-negative) and feel that decisions are moot because predetermined fat plays the guiding role in life (present-fatalistic) have lower financial capability. There was also a significant correlation between parent direct teaching and financial capability. This shows a positive correlation between these two variables, indicating that the higher perception of their parents' engaging in direct teaching methods of financial management while they were growing up, the higher financial capability.

The Pearson coefficient (r) value for the financial knowledge score and financial capability score was .315 with the value of significant r (2-tailed), $p < .01$. In this case, significant r (2-tailed) was smaller than Alpha. Therefore, there was a significant correlation between financial knowledge and financial capability. The positive correlation between these two variables indicates that the higher the financial knowledge, the higher the financial capability. This study concluded that financial knowledge can lead to positive effect on financial capability (Table 1).

Table 2 summarizes the OLS regression results predicting financial capability. Time perspective, financial socialization, financial knowledge, financial risk and individual characteristics were inserted into the regression towards financial capability. Domains of time perspective were significantly related to financial capability except past-positive and present-hedonistic. Participants who focused a generally negative, aversive view of the past (past-negative) and a fatalistic, helpless, and hopeless attitude toward the future and life (present-fatalistic) were negatively associated financial capability. Participants who focused a general future orientation (future-orientation) were positively associated financial capability (Model 1). Contrary to the expectation financial socialization variables were not associated financial capability in the current study. Even though parent direct teaching was significantly correlate with financial capability, when time perspective were added to the equation, parent direct teaching was not significant through interact with time perspectives (Model 2). As expected financial capability significantly varied by financial knowledge. Participants who reported higher score in financial knowledge questions were positively associated financial capability. Thus, contributing to financial knowledge will help higher financial capability (Model 3). Financial capability also varied significantly by risk tolerance. Participants who were willing to take above average and substantial financial risk tend to have more financial capability than participants who were willing to take no financial risk (Model 4). Spouse' education level and income were significant predictors of financial capability. Respondents with higher income and their spouse' held college or higher degrees tend to be having higher levels of financial capability (Model 5) (Table 2).

TABLE 1. Means, standard deviations, and intercorrelations among constructs in model

Construct	*M*	*SD*	2	3	4	5	6	7	8	9	10
Financial capability	4.01	1.86	**-.166****	.077	**-.218****	.020	**.231****	**.128****	.010	-.068	**.315****
Past Negative	10.49	2.70		**.326****	**.337****	**.217****	**.166****	.013	.065	-.017	**-.095***
Past Positive	11.62	2.44			.053	**.261****	**.372****	**.108***	**.131****	**-.298****	-.014
Present Fatalistic	8.18	3.17				**.149****	-.006	**-.123****	.058	.039	**-.174****
Present Hedonistic	10.17	2.99					**.285****	**.160****	-.014	.030	.083
Future-oriented	11.48	2.57						**.143****	.015	**-.112***	**.106***
Parent direct teaching	20.75	5.17							**.460****	.004	**.144****
Parental financial role modeling	15.25	5.16								**-.185****	**-.156****
Financial relationship with parents	5.73	3.56									**.125****
Financial knowledge	6.60	4.35									

**Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

TABLE 2.OLS Regression of Financial Capability

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5
ZTPI-Time perspective					
Past Negative	**-.115 (.033)*** **	**-.114 (.033)*** **	**-.101 (.031)*** **	**-.099 (.031)** **	**-.082 (.031)** **
Past Positive	.040 (.036)	.031 (.038)	.030 (.037)	.033 (.036)	.035 (.037)
Present Fatalistic	**-.096 (.026)*** **	**-.087 (.027)*** **	**-.067 (.026)** **	**-.059 (.026)* **	**-.060 (.026)* **
Present Hedonistic	.000 (.028)	-.007 (.028)	-.016 (.027)	-.025 (.028)	-.048 (0.30)
Future-oriented	**.173 (.033)*** **	**.166 (.033)*** **	**.150 (.032)*** **	**.150 (.032)*** **	**.149 (.033)*** **
Financial Socialization					
Parent direct teaching		.032 (.018)	.011 (.017)	.006 (.017)	-.002 (.017)
Parental financial role modeling		-.010 (.018)	.012 (.017)	.015 (.017)	.020 (.018)
Financial relationship with parents		-.017 (.023)	-.031 (.023)	-.035 (.023)	-.027 (.023)
Financial Knowledge			**.116 (.018)*** **	**.115 (.018)*** **	**.099 (.019)*** **
Financial Risk Tolerance					
Average risk				.318 (.175)	.206 (.176)
Above average and substantial risk				**.514 (.196)** **	**.401 (.196)* **
Socio-Economic Factors					
Gender (1= women)					-.117 (.155)
Age					.003 (.009)
Education level (1= high school graduates or less)					-.072 (.189)
Spouse' Educational Level					**-.742 (.298)* **
Marital Status (1= married)					.339 (.233)
Income					**.849 (.324)** **
Constant	3.570 (.502)***	3.302 (.614)***	2.707 (.599)***	2.545 (.602)***	-.182 (1.227)
F	14.11***	9.30***	13.37***	11.75***	9.01***
R^2	.122	.129	.193	.205	.236

* $p < .05$, ** $p < .01$, *** $p < .001$

DISCUSSION AND CONCLUSION

The current study hypothesized that there is connectivity between financial literacy and time perspective domains. The results of this study partially support this notion and expand the literature in important way. Our study demonstrated a relationship between time perspective and financial capability. Specially, future-oriented people (i.e., those with a high degree of plan for the future) reported that higher score on financial capability. This result consistent with prior research on relationship between future orientation and financial decisions that suggested high consideration of future consequences individuals were more likely to consider the future consequences of their financial decision making. Our findings suggest that there was a positive correlation between direct teaching and financial capability when excluding time perspective.

Consistent with previous study (Huang et al., 2013) current research also concluded that there was positive relationship between financial knowledge and financial capability. This result indicates that in order to develop individuals' levels of financial capability, they should improve to their financial knowledge. Furthermore, improving people's financial capability will not only benefit them directly, but also enable them to exert a stronger influence in the retail markets, creating more effective and efficient markets and reducing the need for regulatory intervention (see, De Meza et al., 2008). Consistent with earlier study (Taylor et al., 2009) income and educational levels of spouse were found significant socio-demographic factors for financial capability in the research sample.

Our contribution to literature is to assess the impact of time perspective on financial capability when allowing for other confounding factors (financial socialization, financial knowledge, and risk tolerance) and measures of socio-economic resources such as gender, age, education, income, and marital status. The findings have important implications for policy-makers, educators, regulators and researchers interested in especially financial capability. This research also makes a valuable contribution towards the development of policy, practice and programs for family to understand how to make effective financial decisions in an increasingly complex economic environment. Financial Capability programs should take into account clients' time orientation.

Limitations of the present study include the selected nature of the sample. The sample was not a random sample of the country, thus potentially limiting the generalizability of results. Further research is warranted using broader and more representative samples, particularly including a wider range of socioeconomic backgrounds and aspirations. Furthermore, we were not able to compare our results to previous studies especially related to relationship between domains of time perspective and financial decisions to investigate similarity and differences. Therefore, comparing this study with similar future studies conducted in other cultures will help researchers.

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