

Effect of Psychological Factors and Financial Behavior on Financial Well-being of Equity Investors in Sri Lanka

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Abstract

This paper examines the effect of psychological factors and financial behavior on the financial well-being of individual equity investors in Sri Lanka. It draws upon the multi-theoretical linkage of social cognitive, prospect, and self-efficacy theories. The study uses survey data from 389 individual equity investors registered at the Colombo Stock Exchange. The results show that financial risk tolerance negatively impacts financial well-being, suggesting that those who are more willing to take risks have lower financial well-being. Results also show that financial behavior positively affects financial well-being. Our findings provide valuable information to the stock market participants, government, and other policymakers to understand the key determinants of financial well-being and identify the most critical areas of financial management practices to enhance the financial well-being of individual equity investors in Sri Lanka.

JEL Classification: G41

Keywords: Financial well-being, financial risk tolerance, financial self-efficacy, financial behavior, individual equity investors.

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1. Introduction

According to the World Bank report (2022), the COVID-19 pandemic, coupled with hikes in food and energy prices, led to increased poverty around the world, reflecting the unusual financial struggle among people, particularly in developing countries. Poor financial well-being is a global issue. Hence, there is a growing interest in building the financial well-being of individuals to achieve socioeconomic development. To gain a more comprehensive understanding of the factors influencing financial well-being, this study examines the influence of psychological factors and financial behavior on the financial well-being of individual equity investors in Sri Lanka.

Moreover, the concept of financial well-being has gained prominence as a research area and a topic of conversation among scholars, governments, investors, employees, and individuals. In increasingly complex financial markets, individuals must operate to meet their own social security needs and the needs of their families (Kempson, Finney, & Poppe, 2017). Moreover, the growing influence of behavioral finance and personal well-being also strengthens the importance of individual choice and responsibility (Bowman, Banks, Fela, Russell, & Ashton de Silva, 2016).

Traditional financial theories assume that well-informed individuals act rationally, and focus on the knowledge that individuals possess. Subsequently, psychology-based behavioral finance theories attempt to understand how emotions and cognitive errors affect the behavior of individual investors (Sewell, 2010), focusing more on what people do than what they know. More recently, researchers have turned their attention to the outcomes of the decisions and actions of individuals trying to meet their social protection needs, leading to the concept of financial well-being (Kempson et al., 2017). In this sense, financial well-being is defined as a multifaceted concept encompassing the concepts of personal finance and the broader field of personal well-being that goes beyond traditional financial knowledge and skills and the concept of a broader financial capability (Drever, Odders-White, Kalish, Else-Quest, Hoagland, & Nelms, 2015). Further, it has been argued that investment decisions can be based on investors' financial well-being and that financial hardships can play a vital role, amplifying the negative impact of financial decisions (Dickason-Koekemoer & Ferreira, 2019). However, several studies have focused on personal knowledge and skills, ignoring the interplay between financial behavior and psychological factors in determining financial well-being (Bowman et al., 2017; Kempson et al., 2017; Prendergast, Blackmore, Kempson, Russell, & Kutin, 2018).

Previous studies have shown that psychological factors significantly influence financial well-being. Psychological factors such as self-control, self-efficacy, sense of responsibility, conscientiousness, locus of control, time orientation and risk tolerance, impulsivity, and achievement orientation are associated with sound management of personal financial situation (Gathergood & Weber, 2014; Gathergood, 2012; Thaler & Shefrin, 1981; Farrell, Fry, & Risse, 2016; Kempson et al., 2017; Tang, Bakker, & Peter, 2015; Bastounis, Leiser, & Roland-levy, 2004). Previous research on potential factors affecting financial well-being has also found that financial behavior is one of the most significant factors that influence financial well-being (Shim, Xiao, Barber, & Lyons, 2009; Xiao, Tang, & Shim, 2009; Hira, Fanslow, & Vogelsang, 1992; Cox, Hooker, Markwick, & Reilly, 2009; Kim, Garman, & Sorhaindo, 2003). In developing countries, particularly from the Sri Lankan perspective, very few recent studies focused on the financial well-being of employees and entrepreneurs (Senevirathne & Jayendrika, 2016; Senevirathne, 2018).

However, only a few studies have fully explored the interrelationships between diverse concepts and financial well-being in an integrated way. Most of them have been limited in scope, and there is only fragmented evidence on how to define and measure financial well-being (Porter, 1990; CFPB, 2015; Kempson et al., 2017). In addition, there is a lack of consensus and empirical evidence on the key drivers of financial well-being that take into account direct and indirect influences (Porter, 1990; Kempson et al., 2017). Moreover, previous work has studied different sets of respondents in their financial well-being research, primarily focused on emerging adults, public and private sector employees, university students, and women (Malone, Stewart, Wilson, & Korsching, 2010; Norvilitis, Szablicki, & Wilson, 2003; Dickason-Koekemoer & Ferreira, 2009; Ponchio, Cordeiro, & Gonçalves, 2019).

Studies on the financial well-being of individual equity investors in emerging markets are rare. Therefore, there is a need to study the financial well-being of equity investors' mostly in frontier market countries like Sri Lanka. This study aims to fill this gap by examining financial risk tolerance, financial self-efficacy, and the role of financial behavior on the financial well-being of equity investors in the Colombo Stock Exchange of Sri Lanka.

The rest of the paper is organized as follows. Section 2 provides a critical review of relevant literature, the empirical evidence supporting the hypotheses, and the conceptualization of the study. Section 3 elaborates on the research methodology, which includes sampling strategy, data collection procedure, questionnaire design, pretest, and pilot study. Section 4 presents the data analysis which includes the validity and reliability of the measures, the profile of the respondents, correlations, and regression results. Sections 5 and 6 present the discussion of the research findings and the conclusion of the study respectively. Finally, section 7 discusses the limitations and suggestions for further study.

2. Literature and Hypotheses

Among all psychological factors, risk tolerance plays an important role in shaping investors' financial well-being through its influence on financial decisions. Risk tolerance refers to being "willing to engage in behavior whose results are still uncertain and may produce identifiable negative outcomes" (Irwin, 1993). Kogan and Wallach (1964) believe that risk tolerance is an individual's willingness to engage in behavior with desired goals, but the realization of the goals is uncertain with the possibility of losses. In addition, financial risk tolerance is defined as "the maximum level of uncertainty that a person is willing to accept when making financial decisions" (Grable & Joo, 1999).

Risk tolerance is generally conceptualized as the maximum level of volatility that investors are willing to accept when making financial decisions (Grable & Lytton, 1999; Hallahan, Faff, & McKenzie, 2003). Financial risk tolerance is "an indicator of the willingness to bear financial risks and affects a wide range of personal financial decisions" (Snelbecker, Roszkowski, & Cutler, 1990). Many research studies have examined the relationship between financial risk tolerance and some of the other different dimensions, including investment decisions, stock market participation, financial satisfaction, short-term investment performance, and wealth accumulation (Lusardi, 2012; Van Rooij, Lusardi, & Alessie, 2011; Grable, Lytton, & O'Neill, 2004; Santacruz, 2009; Grable & Joo, 2000).

According to Thaler, Tversky, Kahneman, and Alan Schwartz (1997), "loss-aversion investors are willing to take risks when they evaluate their investments less often and investors accept higher

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risk when all payoffs increase to the point where additional losses are eliminated.” Further, Thaler et al. (1997), explained that investors who receive regular feedback take less risk and make less money. Jeong and Hanna (2004) state that people who own riskier assets tend to be more satisfied with their financial situation. However, researchers have yet to reach a consensus on the causal relationship between financial risk tolerance and financial well-being. Therefore, based on cumulative prospect theory, it can be hypothesized that financial risk tolerance is positively related to the financial well-being of investors.

H1: Financial risk tolerance has a positive relationship with financial well-being.

The extant literature also suggests that self-efficacy is another important psychological factor in personal financial well-being. Self-efficacy refers to believing that one can organize and execute the actions necessary to achieve specific accomplishments (Bandura, 1997, p.3). People who develop their skills, abilities, and beliefs about self-efficacy have certainty about their financial future and are better able to meet challenges rather than avoid threats (Bandura, 1994). In the context of financial behavior, financial self-efficacy refers to “people's belief in their ability to control functions and achieve financial goals” (Lapp, 2010). Similarly, financial self-efficacy refers to “the knowledge and ability to influence and control personal financial affairs” (Fox & Bartholomae, 2008). Consistent with the definitions above, several studies have found that efficacious people have an internal locus of control, which means that a person has confidence in their ability to influence life outcomes, which strengthens their belief that they can control events that potentially affect life and achieve favorable financial outcomes (CFPB 2015; Shim et al., 2009; Lapp, 2010; Muir, *Hamilton, Noone, Marjolin, Salignac, & Saunders*, 2017). However, little is known about the relationship between financial self-efficacy and financial well-being (CFPB 2015; Muir et al., 2017; Kempson et al., 2017).

According to Bandura's self-efficacy theory (SET), the belief, explicit to a task or a subject matter or performance, shapes the practices, and systems that affect life choices, level of motivation, quality of functioning, and vulnerability to depression and stress. Individuals with high levels of financial self-efficacy in certain areas of life tend to persevere when faced with difficulties, cultivate inner interest and participate deeply in activities and are less prone to negative psychological consequences (Bandura, 1997). Thus, people with a strong sense of efficacy improve human accomplishment and personal well-being by setting challenging goals for themselves and firmly binding those goals to them. Therefore, based on SET theory, people's belief that their efficacy can lead to personal success reduces stress and reduces the risk of depression, leading to more favorable personal financial outcomes. Based on the literature, we hypothesize that financial self-efficacy is positively related with financial well-being.

H2: Financial self-efficacy has a positive relationship with financial well-being.

Previous research on potential factors affecting financial well-being has also found that financial behavior is one of the most significant factors that affect financial well-being (Shim et al., 2009; Xiao et al., 2009; Hira et al., 1992; Cox et al., 2009; Kim et al., 2003). Those who exhibit more of the desired financial behavior recommended by experts have lower levels of financial difficulty and stress (Lea, Webley, & Walker, 1995; Joo & Grable, 2004) and greater financial satisfaction (Godwin, 1994; Joo & Grable, 2004; Kim et al., 2003; Lown & Ju, 1992; Parrotta &

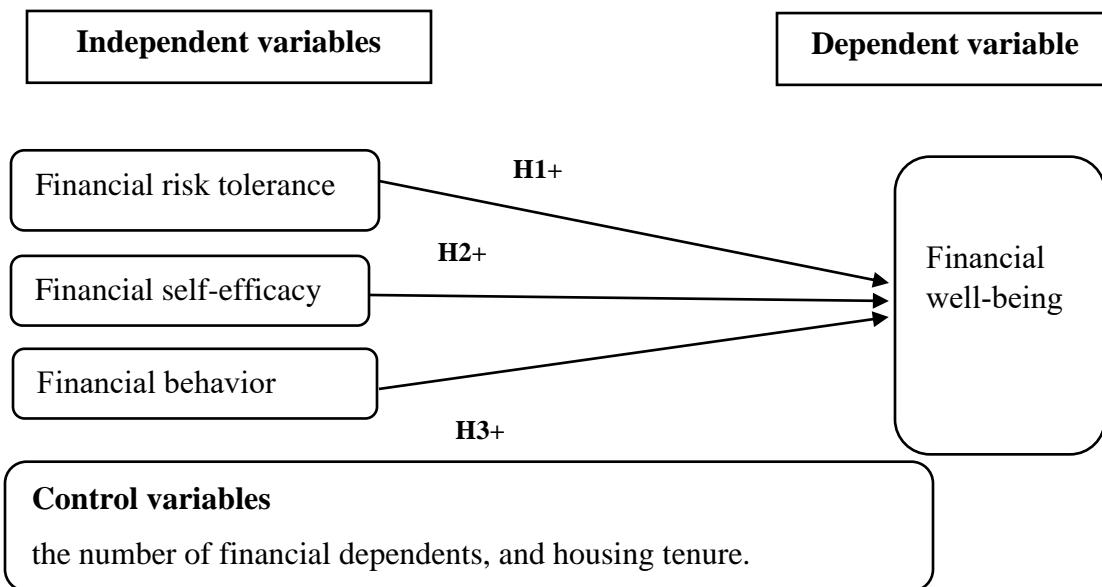
Johnson, 1998; Porter & Garman, 1993). In addition, several specific types of behavior have been identified as key drivers of financial well-being, such as spending restraints, keeping track of money, informed product choice, not borrowing for everyday expenses, and budgeting plans for the future (Finney, 2016; Gutter & Copur, 2011; Prendergast et al., 2018; Shim et al., 2009; Kempson et al., 2017; CFPB, 2017). However, there is very little research that examines how financial behavior affects financial well-being, and even the results from limited studies have been mixed (Brüggen, Hogreve, Holmlund, Kabadayi, & Löfgren, 2017; Sorgente & Lanz, 2017). A few recent studies focused on the financial well-being of employees and entrepreneurs (Senevirathne & Jayendrika, 2016; Senevirathne, 2018) in Sri Lanka. But there have not been studies examining the impact of psychological factors and financial behavior and their relationship with the financial well-being relating to individual equity investors in Sri Lanka.

According to Bandura’s self-efficacy theory (SET), the belief, explicit to a task or a subject matter or performance, shapes the practices, and systems that affect life choices, level of motivation, quality of functioning, and vulnerability to depression and stress. Individuals with high levels of financial self-efficacy in certain areas of life tend to persevere when faced with difficulties, cultivate inner interest and participate deeply in activities and are less prone to negative psychological consequences (Bandura, 1997). Thus, people with a strong sense of efficacy improve human accomplishment and personal well-being by setting challenging goals for themselves and firmly binding those goals to them. Therefore, based on SET theory, people's belief that their efficacy can lead to personal success reduces stress and reduces the risk of depression, leading to more favorable personal financial outcomes. Based on the literature, we hypothesize that financial behavior has a positive impact on financial well-being.

H3: Financial behavior has a positive relationship with financial well-being.

Figure 1

Conceptual Framework of the Study



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Based on the above arguments, the conceptual framework of the study is developed and presented in Figure 1. This conceptual model attempts to describe the predicted relationship between psychological factors, financial behavior, and the financial well-being of individual equity investors in Sri Lanka.

3. Research Methodology

3.1 The survey questionnaire

A self-administrated questionnaire was designed to collect data. The questionnaire comprises 51 items divided into five parts, namely financial behavior, financial risk tolerance, financial self-efficacy, financial well-being, and key demographic information about respondents. Financial well-being is measured using 10 items on a 5-point Likert scale developed by the CFPB (2015). The items cover all four elements of the CFPB's definition of financial well-being: control over finances, capacity to absorb a financial shock, being on track to meet financial goals, and having the financial freedom to enjoy life, using both positive and negative phrasing. The 6-point scale developed by Grable and Lytton (1999) is used to measure financial risk tolerance. Financial self-efficacy is measured using a 21-item scale developed by Nguyen (2019). This scale measures the four sub-dimensions of financial self-efficacy: saving and investing, knowledge about financial services, financial goal achievement and cash flow management, and credit basics. Financial behavior is measured with a 15-item scale developed by Dew and Xiao (2011) to measure an individual's saving, investment, expenditure, and debt behavior. This scale measures the four sub-dimensions of financial behavior such as cash management, credit management, savings and investments, and insurance.

3.2 The pilot study

First, we conducted a pilot study to assess the efficacy of the questionnaire. We collected data from 24 individual investors using Google Forms. Kline (2013) suggested that a cut-off point of 0.70 for the ability test is appropriate, which indicates that the questions deal with the same construct. Cronbach's alpha is calculated for each variable and for dimensions within each variable to determine how much the elements and variables that make up each dimension have in common. All Cronbach's alphas in this study are greater than 0.70, confirming the reliability of the questions.

3.3 Sample and data

The population of this study is local individual equity investors registered at the CSE. There were 626,343 local retail investors in 2020. The study is based on the survey approach, and self-administrated questionnaires were used to collect the data. A total of 690 questionnaires were randomly distributed to individual equity investors through 23 stock broker companies. Finally, 401 questionnaires were received. The deletion of missing data resulted in a final sample of 389 responses with a response rate of 56%.

3.4 The Model

This study uses the following regression model to estimate the relationship between financial well-being and the three independent variables.

$$FWB_i = \alpha + \beta_1 FRT_{i1} + \beta_2 FSE_{i2} + \beta_3 FB_{i3} + \beta_4 HT_{i4} + \beta_5 Dep_{i5} + \varepsilon_i \quad (1)$$

Where,

α = Constant

FWB = Financial well-being

FRT = Financial risk tolerance

FSE = Financial self-efficacy

FB = Financial behavior

HT = Housing tenure

Dep = Number of dependents

i = i^{th} case in n observations

ε = error term

We also examine the correlation between financial well-being and several socio-economic characteristics that have been identified as important control variables in the prior literature on well-being (Porter & Garman, 1990; Kempson et al., 2017; Muir et al., 2017; Shim et al., 2009; Gutter & Copur, 2011; Bruggen et al., 2017). They include marital status, housing tenure, age, gender, and the number of financial dependents. However, for the final regression analysis, only two variables—the number of financial dependents and housing tenure—were included as controls because of their relative importance to the study.

4. Data Analysis

4.1 Validity and reliability of the measures

Sampling adequacy and Principal Component Analysis (PCA) were used for 51 items with orthogonal rotation (Varimax) to check the sampling adequacy and to “reduce the data set to a more manageable size while preserving as much original information as possible” (Field, 2009). The Kaiser-Meyer-Olkin measurement verified the sampling adequacy for the analysis, $KMO = 0.873$ (“great” according to Field, 2009), and all KMO values of each variable were > 0.76 , which was much higher than the acceptable limit of 0.5 (Field, 2009). Bartlett's sphericity test $\chi^2 (946) = 7286.505$, $p < 0.01$, indicating that the correlation between items was large enough for the PCA.

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Table 1

Results of KMO and Bartlett's Test for Overall Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.873
Bartlett's Test of Sphericity	Approx. Chi-Square	7286.505
	df	946
	Sig.	0.000

Note: N=389

Based on the rotated factor matrix, some items were removed from the list when there was a lower factor loading. Therefore, the original 51 items were reduced to the more suitable 44 items, which were loaded under each factor (all items > 0.50) and thus accepted for further analysis. Finally, the results showed that Total Variance Explained (TVE) exceeded the acceptable level (50%) for each variable, confirming the number of components retained in the final analysis. The Cronbach's alpha (see Table 2) value of all constructs was greater than 0.70 and ranges from 0.77 to 0.92. Therefore, the criteria for ensuring reliability were fully met.

Table 2

Reliability Scores for the Constructs

Construct	Number of items	Cronbach's Alpha
Financial well-being	8	0.78
Financial risk tolerance	5	0.78
Financials self-efficacy	19	0.92
Financial behavior	12	0.77

Note: N=389

4.2 The profile of the respondents

Table 3 shows the demographic characteristics of the respondents. The majority of respondents were male (57.1%) and 42.9% were female. It can be seen that 60.2% of the respondents were married. 69.9% of the respondents were between 30 and 59 years old. About a quarter (28.3%) of the respondents was below 28.3%. Of the 389 respondents, 32.4% had no or only one financially dependent person. Regarding housing tenure, 42.4% of those surveyed were owners, and 38.6% lived with their parents or other family members. Only 19% of respondents were tenants. The mean score of financial well-being (FWB) was 3.03 while the mean score of financial risk tolerance (FRT) was 3.07 which shows that respondents have moderate financial well-being and tolerance for the financial risks of investing. The mean score of financial behavior (FB) was 3.33

which shows they have been involved in financial activities frequently in the past. Moreover, the mean score of financial self-efficacy (FSE) was 3.33 which means respondents are quite confident about taking financial decisions.

Table 3*Profile of the Respondents*

Demographics	Categories	Frequency	Percentage (%)	FWB	FB	FSE	FRT
Age	Below 29	110	28.3	3.09	3.42	3.42	2.84
	30-59	272	69.9	2.99	3.28	3.28	3.18
	60 and above	7	1.8	3.70	3.79	3.75	2.64
Gender	Female	167	42.9	3.05	3.28	3.35	3.06
	Male	222	57.1	3.02	3.36	3.31	3.08
Marital status	Single	142	36.5	3.10	3.36	3.37	2.83
	Married	234	60.2	2.99	3.31	3.30	3.20
	Divorced or Separated	8	2.1	3.23	3.06	3.15	3.00
	Widow/Widower	5	1.3	2.62	3.43	3.72	3.70
Housing tenure	Own	165	42.4	3.09	3.39	3.38	3.13
	Rent	74	19.0	2.95	3.16	3.09	3.31
	Live with parents or other family members	150	38.6	3.01	3.34	3.38	2.88
Number of financial dependents	0-1	126	32.4	3.23	3.36	3.39	2.82
	2-3	177	45.5	2.98	3.46	3.35	3.09
	4 and above	86	22.1	2.85	3.02	3.20	3.39
	Total	389	100	3.03	3.33	3.33	3.07

Note: N=389

4.3 Correlations

Table 4 shows the correlations between the variables. None of the independent variables showed a higher correlation among themselves. There is a statistically significant positive correlation between financial well-being and financial behavior ($r = 0.45$, $p < 0.01$) and financial self-efficacy ($r = 0.24$, $p < 0.01$). However, there was a significant negative correlation between financial well-being and financial risk tolerance ($r = -0.31$, $p < 0.01$). In addition, as a control variable, the number of financially dependent persons ($r = -0.22$, $p < 0.01$) is correlated significantly negatively with financial well-being. Other control variables do not exhibit any meaningful correlation with financial well-being.

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Table 4

Correlations among the Variables

Variable	1	2	3	4	5	6	7	8
1 Financial well-being								
2 Financial risk tolerance	-0.31**							
3 Financial self-efficacy	0.24**	0.00						
4 Financial behavior	0.45**	-0.11*	0.45**					
5 Age ^a	0.01	0.18**	-0.01	-0.03				
6 Gender ^b	-0.02	0.02	-0.04	0.06	0.06			
7 Marital Status ^c	-0.09	0.21**	-0.02	-0.04	0.41**	0.04		
8 Housing tenure ^d	-0.06	-0.13**	-0.01	-0.04	-0.44**	-0.08	-0.39**	
9 Financial dependents ^e	-0.22**	0.25**	-0.10*	-0.15**	0.13**	0.06	0.28**	-0.16**

Note: ** $p < 0.01$; * $p < 0.05$. (1-tailed) bivariate. N=389

^a 1 = below 29; 2 = 30-29; 3= 60 and above.

^b 1 = male; 0 = female.

^c 1 = single; 2 = married; 3 = divorced or separated; 4 = widow or widower.

^d 1 = I own my home; 2 = I rent; 3 = Live with parents or other family.

^e 1 = 0-1; 2 = 2-3; 3 = 4 and above.

4.4 Regression results

Table 5 shows the hierarchical multiple regression results for testing the relationship between financial well-being and financial risk tolerance, financial self-efficacy, and financial behavior. Among the five control variables, only one control variable—the number of financial dependents—is significantly correlated with financial well-being. However, housing tenure was also identified as one of the important predictors of financial well-being in the previous research (CFPB, 2015; Kempson et al., 2017; Muir et al., 2017). Therefore, the number of financial dependents and housing tenure are used as the two control variables in this study.

The results in Panel A show that 5.4% of the variation in financial well-being is explained by the control variables. It can also be seen that the constant (2.786) in Panel A is the average financial well-being of respondents who lived with their parents or other family members and had 4 or more financial dependents. Regarding the number of financially dependent persons, the first dummy variable (0-1 vs 4 and above) was statistically significant ($p < 0.05$), which indicated that there was a significant positive difference between the well-being of respondents who had 0-1 dependents vs. 4 and more dependents in all four models. In none of the four models examined, however, the second dummy variable (2-3 vs. 4 and above) was not statistically significant ($p > 0.05$). Concerning housing tenure, the first dummy variable (owning a home vs living with parents or other family members) was statistically significant ($p < 0.05$) in all four models, suggesting that there was a significant positive difference in the well-being of respondents who owned a home vs. those who live with their parents or other family members. However, in none of the four models

examined, the second dummy variable (renting a house vs living with parents or other family members) was not statistically significant. Interestingly, these results imply that people who have a lower number of dependents and who own houses have better financial well-being.

Further, the results in Panel B indicate that financial risk tolerance is an important predictor of financial well-being at a 1% level of significance and explains an additional 7.2% of the variation in financial well-being. This means that financial risk tolerance can also contribute to predicting financial well-being beyond the control variables. However, contrary to the hypothesis of a positive effect, the results show that financial risk tolerance is significantly negatively related to financial well-being. This suggests that those who were willing to take risks had significantly lower financial well-being than those who were more likely to have avoided risks.

The model in Panel C added financial self-efficacy in addition to the control variables and financial risk tolerance. Consistent with the hypothesis, financial self-efficacy is also found to be positively related to financial well-being.

The results in Panel D show that consistent with the hypothesis, financial behavior impacts significantly positively on financial well-being at a 1% level of significance and accounts for an additional 12.2% of the variance in financial well-being over and above what is explained by the control variables, financial risk tolerance, and financial self-efficacy. However, in this model, inconsistent with the hypothesis which predicted a positive relation, financial self-efficacy is not found to be significant in predicting financial well-being.

Table 5

Regression of Financial Well-being on Financial Risk Tolerance, Financial Self-Efficacy, and Financial Behavior

Variables	Panel A			Panel B			Panel C			Panel D		
	β	t	Sig.	β	t	Sig.	β	t	Sig.	β	t	Sig.
Control Variables												
Housing Tenure (Base: Live with others)												
I own my home dummy	0.144	1.987	0.048*	0.185	2.634	0.009**	0.182	2.665	0.008**	0.156	2.467	0.014*
I rent dummy	-0.026	-0.292	0.770	0.059	0.676	0.500	0.127	1.471	0.142	0.127	1.593	0.112
The number of financial dependents (Base: 4 and above)												
0-1 dummy	0.407	4.549	0.000**	0.289	3.257	0.001**	0.240	2.770	0.006**	0.160	1.984	0.048*
2-3 dummy	0.130	1.565	0.118	0.067	0.830	0.407	0.033	0.417	0.677	-0.095	-1.271	0.204
Test Variables												
Financial risk tolerance				-0.221	-5.639	0.000**	-0.230	-6.048	0.000**	-0.203	-5.760	0.000**
Financials self-efficacy							0.229	4.895	0.000**	0.058	1.214	0.226
Financial behavior										0.363	8.196	0.000**
Constant	2.786			3.497			2.784			2.158		
Adjusted R^2	0.054			0.125			0.174			0.296		
ΔR^2				0.072			0.051			0.122		
F	6.568			12.036			14.625			24.305		
ΔF	6.568			31.801			23.962			67.177		
Sig.	0.000**			0.000**			0.000**			0.000**		

Note: The dependent variable is financial well-being. Independent variables are financial risk tolerance, financial self-efficacy, and financial behavior. Control variables are the number of financial dependents and housing tenure. D = dummy values. The number of observations is 389. * and ** denote significant at 5% and 1% respectively.

5. Discussion of Findings

5.1 Financial risk tolerance and financial well-being

In light of the reasoning drawn from the prospect theory and empirical evidence, this study hypothesized that financial risk tolerance is positively related to financial well-being. However, contrary to this expectation, the results showed that financial risk tolerance was significantly negatively related to financial well-being. This suggests that those who were willing to take risks had significantly lower financial well-being than those who were more likely to have avoided risks. It could be because of extreme volatility, larger losses experienced by the market as a whole, and relatively positive short-term returns that might contribute significantly to the financial well-being of low-risk tolerant investors.

Some previous studies also show a similar result of a negative relationship between financial risk tolerance and other financial outcome variables. For example, Joo and Grable (2004) found that financial risk tolerance had a direct negative impact on financial satisfaction. In addition, Joo and Grable (2004) stated, “those who have higher levels of financial risk tolerance tend to also have increased financial expectations, and that when compared to their standard of living, highly risk-tolerant persons find their current level of living, and thus their financial satisfaction, inadequate”. This finding is also supported by Payne (2015) on a representative survey of Americans where the results showed that the financial satisfaction of investors with medium or high-risk tolerance is significantly lower than that of investors with lowest risk tolerance.

5.2 Financial self-efficacy and financial well-being

Based on the reasoning drawn from self-efficacy theory and empirical evidence, this study hypothesized that financial self-efficacy is positively related to financial well-being. This hypothesis was established based on the argument of the self-efficacy theory that people’s beliefs about their efficacy are likely to result in more favorable personal financial outcomes. However, contrary to this expectation, this study did not establish a significant direct relationship between financial self-efficacy and financial well-being. Financial self-efficacy may be indirectly associated with financial well-being. The main feature of Financial self-efficacy could help motivate the individual towards favorable financial decision-making behavior to achieve a positive financial outcome. Shim et al., (2009) also claimed that financial self-efficacy has been linked to positive financial behaviors. Farrell, Fry, and Risse (2016), in a survey of Australian women, indicated that financial self-efficacy has an explanatory effect on personal financial behavior and has become one of the strongest predictors of financial behavior.

5.3 Financial behavior and financial well-being

Based on social cognitive theory and empirical evidence, this study hypothesized that financial behavior is positively related to financial well-being. As hypothesized, the results showed that financial behavior was a strong positive significant predictor of financial well-being. Therefore, this finding confirmed the argument based on the social cognitive theory that people adapt their behavior through control and reinforcement in order to achieve long-term, sustainable, goal-oriented behavior. In addition, Gutter, Garrison, and Copur (2010) show that financial social

learning opportunities play an important role in shaping individual attitudes towards and behavior in financial management.

Garman and Fogue (2006) believe that personal financial behavior can be an important part of determining financial well-being. In addition, Xiao et al. (2009) also showed that financial behaviors such as credit management, saving, and cash management correlate positively with the overall well-being of the individual. Research generally shows that those who exhibit more expert-recommended financial behaviors have less financial hardship and stress (Lea, Webley & Walker, 1995; Joo & Grable, 2004) and higher financial satisfaction (Godwin, 1994; Joo & Grable, 2004; Kim, Garman & Sorhaindo, 2003; Lown & Ju, 1992; Parrotta & Johnson, 1998; Porter & Garman, 1993).

Further, some previous studies showed mixed results on the effects of different dimensions of financial behavior on financial well-being. For example, the empirical analysis conducted by Kempton et al. (2017) found that three key behaviors such as active saving, spending restraints, and not borrowing for daily expenses affected three subdomains (meeting commitments, feeling comfortable, and resilience for the future) of financial well-being positively. However, the other two dimensions of financial behavior such as keeping track of money and budgeting harmed financial well-being. Further, it is supported by Chavali, Mohan Raj, and Ahmed (2021) on a sample of 150 respondents where the results showed that there was an association between future security, savings and investment, credit indiscipline, financial consciousness, and financial well-being but there was no association between credit commitment and financial well-being. Therefore, it is highly recommended that future studies examine the effect of different dimensions of financial behavior on financial well-being.

5.4 Control variables

In terms of socio-demographic variables—number of financial dependents and housing tenure—participants who own homes and respondents with a lower number of financial dependents have a significantly higher level of financial well-being. These results support the findings of Muir et al. (2017) who showed that “owning a home may make people feel more financially secure and the level of income relative to the number of dependents in the household affects an individual’s current and future financial well-being.” Further, Prendergast et al. (2018) stated that “people who owned their own homes (mortgage-free) had greater financial well-being.”

6. Conclusions

This study examined the influence of psychological factors and financial behavior on financial well-being among individual equity investors in Sri Lanka. By drawing on the social cognitive theory, prospect theory, and self-efficacy, this study extends the theoretical and empirical understanding of the determinants of the financial well-being of Sri Lankan equity investors. The results showed financial risk tolerance negatively affects financial well-being while financial behavior positively impacts financial well-being.

This study has extended the existing literature by identifying the distinct relationship between financial well-being and psychological factors and financial behavior. The findings from this study would be helpful for investors to make the right investment decisions. Furthermore, financial

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education providers and policymakers can use this research to learn what to include and how to develop their curriculum and educational plans, and strategies for personal financial management.

7. Limitations and Suggestions for Further Studies

The limitation of this research is that it relied on respondents self-reporting of data. However, the nature of the subjective data mandated its collection through self-reporting. Cross-sectional data used for this study may not be sufficient enough and limit conclusions about the causal relationship among the variables. A longitudinal design is needed to verify the results and better understand causation over time.

Future studies could focus not only on individual-level factors but also household, family, peer, and community-level influences to determine which are most predictive of financial well-being. Even if the majority of studies used quantitative approaches, the issues examined in this study can also be explored qualitatively through in-depth interviews to understand investors' subjective perspectives and experiences in evaluating their financial well-being.

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Appendix A

Survey on Financial Well-being

Section A:

The following items are about how often you have engaged in the following activities in the past. For each item, circle the number that best represents your response.

	Never	Seldom	Sometimes	Often	Always
Comparison shopped when purchasing a product or service	1	2	3	4	5
Paid all your bills on time	1	2	3	4	5
Kept a written or electronic record of your monthly expenses	1	2	3	4	5
Stayed within your budget or spending plan	1	2	3	4	5
Paid off the credit card balance in full each month	1	2	3	4	5
Maxed out the limit on one or more credit cards	1	2	3	4	5
Made only minimum payments on a loan	1	2	3	4	5
Began or maintained an emergency savings fund	1	2	3	4	5
Saved money from every paycheck	1	2	3	4	5
Saved for a long-term goal such as a car, education, home, etc.	1	2	3	4	5
Contributed money to a retirement account	1	2	3	4	5
Bought bonds, stocks, or mutual funds	1	2	3	4	5
Maintained or purchased an adequate health insurance policy	1	2	3	4	5
Maintained or purchased adequate property insurance like auto or homeowner insurance	1	2	3	4	5
Maintained or purchased adequate life insurance	1	2	3	4	5

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Section B:

The following items are about your attitude. For each item, circle the number that best represents your response.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
In terms of investing, safety is more important than returns.	1	2	3	4	5
I am more comfortable putting my money in a bank account than in the stock market.	1	2	3	4	5
When I think of the word ‘risk’ the term ‘loss’ comes to mind immediately.	1	2	3	4	5
Making money in stocks and bonds is based on luck.	1	2	3	4	5
I lack the knowledge to be a successful investor.	1	2	3	4	5
Investing is too difficult to understand.	1	2	3	4	5

Section C:

The following items are about how confident you are in taking financial actions. For each item, circle the number that best represents your response.

	Not confident at all	Slightly confident	Somewhat confident	Fairly confident	Highly confident
I can stick to my financial plan	1	2	3	4	5
I can put aside some money for future unexpected expenses.	1	2	3	4	5
I can put money into a savings account regularly for future goals.	1	2	3	4	5
I can save for retirement.	1	2	3	4	5
I can figure out how much money I can save per month.	1	2	3	4	5
I can invest my savings appropriately to achieve my financial goals.	1	2	3	4	5
I can be prepared to handle unexpected financial problems.	1	2	3	4	5
I can find resources to help me solve a difficult financial problem.	1	2	3	4	5
I can recognize and avoid financial fraud.	1	2	3	4	5
I can arrange for the health insurance coverage I need.	1	2	3	4	5
I can find resources to help me with completing my tax forms if I need them.	1	2	3	4	5
I can protect myself from identity theft (e.g. credit card number, social security number)	1	2	3	4	5
I can find resources to help me solve an identity theft problem if it happens to me.	1	2	3	4	5
I can set financial goals for my future well-being.	1	2	3	4	5
I can develop a plan to achieve my financial goals.	1	2	3	4	5
I can achieve my financial goals if I try hard enough.	1	2	3	4	5
I can keep track of my spending to see where I need to make changes	1	2	3	4	5
I can pay my bills on time.	1	2	3	4	5
I can develop a plan to pay off my debt as early as possible.	1	2	3	4	5
I can reduce my use of credit by making good spending decisions	1	2	3	4	5

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Section D:

The following items are about your money matters. For each item, circle the number that best represents your response.

	Not at all	Very little	Somewhat	Very well	Completely
How well does this statement describe you or your situation?					
I could handle a major unexpected expense	1	2	3	4	5
I am securing my financial future	1	2	3	4	5
Because of my money situation, I feel like I will never have the things I want in life	1	2	3	4	5
I can enjoy life because of the way I'm managing my money	1	2	3	4	5
I am just getting by financially	1	2	3	4	5
I am concerned that the money I have or save will not last	1	2	3	4	5
	Never	Rarely	Sometimes	Often	Always
How often does this statement apply to you?					
Giving a gift for a wedding, birthday or another occasion would put a strain on my finances for the month	1	2	3	4	5
I have money left over at the end of the month	1	2	3	4	5
I am behind with my finances	1	2	3	4	5
My finances control my life	1	2	3	4	5

Section E: Personal information

I am asking for the following information so that I will be able to describe the overall survey sample. This information will not be used to identify specific respondents. Please respond to the questions below by ticking the right option.

Age (in years)

Below 29

60 and above

30 – 59

Gender

Male

Female

Marital Status

Single

Divorced/ separated

Married

Widow/widower

Housing tenure

I own my home

Live with parents/other

I rent

family

The number of financial dependents

0

3

1

4

2

More than 4